

THE DESIGN PATENT EMPEROR WEARS NO CLOTHES: RESPONDING TO ADVOCATES OF DESIGN PATENT PROTECTION FOR FUNCTIONALITY

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ABSTRACT

In *Design Patent Law's Identity Crisis*, we traced the origins of design patent law's ornamentality/non-functionality doctrine and showed how the Federal Circuit, the nation's de facto design patent emperor over the past four decades, has turned the doctrine on its head: it has upended the 1902 Act's intent and reversed three-quarters of a century of regional circuit jurisprudence. So much so that the post-1902 Act regional circuit design patent cases invalidating design patents on functionality grounds would come out oppositely under the Federal Circuit's lax standards. Those standards led to the absurd result that Apple could disgorge Samsung's profits on its smartphones because they employed rounded rectangular shapes. We showed that the applicable legislation limited design protection to original, ornamental articles of manufacture and excluded protection for functionality.

This Article responds to the practitioners and academics who have defended the Federal Circuit's interpretation of design patent law in commenting on our article. While none of the commentators question, no less refute, our core finding that the Federal Circuit has flipped the ornamentality/non-functionality doctrine, several offer fig leaves to clothe the Federal Circuit's lax standards for design patent eligibility and infringement. We discuss the significant areas of agreement and show why the defenses of the Federal Circuit's interpretation of the design patent standards are mistaken as a matter of statutory interpretation and are bad intellectual property policy. We conclude by addressing ways in which the Supreme Court or the Federal Circuit could faithfully implement the design patent statute, the fundamental intellectual property channeling principle reflected in *Baker v. Selden*, and sound intellectual property policy.

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I. INTRODUCTION

Our lead article for this symposium, which traces a statutory and jurisprudential roller coaster that spans nearly two centuries, reveals how the U.S. Court of Appeals for the Federal Circuit, established in 1982, upended the 1902 Act’s intent and reversed three-quarters of a century of regional circuit jurisprudence.¹ In view of this extraordinary finding, we wanted to be sure that we did not overlook any critical pieces of the puzzle. Accordingly, we invited influential design patent practitioners and scholars to participate in the Berkeley Center for Law & Technology (BCLT)/*Berkeley Technology Law Journal* (BTLJ) Symposium, *Navigating and Rectifying the Design Patents Muddle*. More than 300 people attended the online event held on February 21, 2021, which was recorded and posted on BCLT’s website.²

We invited leading practitioners and scholars to discuss our findings. Four practitioners prepared commentaries for this symposium volume: Perry

1. See Peter S. Menell & Ella Corren, *Design Patent Law’s Identity Crisis*, 36 BERKELEY TECH. L.J. 1 (2021) (hereinafter cited as “*Identity Crisis*”).

2. BCLT/BTLJ *Design Patents Symposium: Navigating and Rectifying the Design Patent Muddle*, <https://www.law.berkeley.edu/research/bclt/bcltevents/bclt-btlj-symposium-navigating-and-rectifying-the-design-patent-muddle/> (last visited Nov. 14, 2021).

Saidman, who successfully litigated *Avia Group Int'l, Inc. v. L.A. Gear Cal., Inc.*,³ the 1988 Federal Circuit case that significantly expanded design patent eligibility, and advocates for broad design patent protection; Christopher V. Carani, a design patent specialist who edited a volume surveying functionality and scope of design protection⁴ around the world and who also advocates for broad design patent protection; and Charles L. Mauro and Christopher Morley, industrial design researchers. In addition, Mr. Mauro has served as an expert witness in design patent cases. Two academic scholars also contributed to this volume: Professor Mark McKenna and Professor Joshua Sarnoff. Several other design patent practitioners and academics provided comments at the BCLT/BTLJ Symposium. Their presentations and our responses are contained in the recordings that are archived on BCLT's website.⁵

While the symposium produced some fireworks, no participant rebutted our core finding: the Federal Circuit, the nation's de facto design patent emperor since 1982, has flipped design eligibility doctrine on its head. As Part II of this response shows, the post-1902 Act regional circuit design patent cases invalidating design patents on functionality grounds would come out oppositely under the Federal Circuit's lax standards. In Part III, we explain why the design patent practitioners' defense of the Federal Circuit's jurisprudence misapprehends the 1902 Act and the broader contours of the intellectual property landscape. We also respond to Professor McKenna's support for interpreting design patent law to protect functionality, even if only modestly. We conclude by addressing ways in which the design patent regime could be brought back into harmony with the design patent statute, the fundamental intellectual property channeling principle reflected in *Baker v. Selden*,⁶ and sound intellectual property policy.

II. OUR CORE FINDING: THE FEDERAL CIRCUIT HAS FLIPPED DESIGN PATENT ELIGIBILITY IN DISREGARD OF THE 1902 ACT AND REGIONAL CIRCUIT AUTHORITY

Although drafters of the U.S. design regime modeled the 1842 Act on the British *copyright* regime for surface ornamentation and sculptural features of three-dimensional articles,⁷ the statute was confusingly mislabeled "design

3. 853 F.2d 1557, 1563 (Fed. Cir. 1988).

4. DESIGN RIGHTS: FUNCTIONALITY AND SCOPE OF PROTECTION (Christopher V. Carani ed., 2017).

5. See *supra* note 2.

6. 101 U.S. 99 (1879).

7. See *Identity Crisis*, *supra* note 1, at 10.

patent” for reasons involving the Patent Commissioner’s bureaucratic opportunism.⁸ The statute’s confusing reference to “useful” in one category of protected works—“new and *useful* pattern, or print, or picture”⁹—caused some courts and the Patent Office to misread “useful” as authorizing protection for functionality. Further complicating design patent’s role, manufacturers used design patents as a nascent form of trademark protection until federal trademark protection emerged.¹⁰ The confusion and overlap with other regimes grew when Congress expanded copyright law to protect sculptural works in 1870.¹¹ Although the Supreme Court’s 1871 decision in *Gorham v. White* held that design patents covered ornamentality and not functionality,¹² two later Supreme Court decisions downplayed considerations of aesthetics and ornamentality while emphasizing utility.¹³

This confusion led Patent Commissioner Frederick Allen, at the turn of the twentieth century, to urge Congress to reform the design patent regime to “occupy its proper philosophical position in the field of intellectual property production.”¹⁴ He proposed deleting the term “utility” and ensuring that design patents “protect[] objects of new and artistic quality pertaining . . . to commerce, but not justifying their existence upon functional utility.”¹⁵ The 1902 Act followed this suggestion, deleting the word “useful” from the design patent statute and replacing it with “ornamental.”¹⁶ The Senate Report incorporated Commissioner Allen’s letter explaining the rationale for the change and noted that “[t]he 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.”¹⁷ The House Report explained that the reform legislation was intended “to make plain the distinction between mechanical patents, where ‘utility’ is an essential

8. *See id.*

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

10. *See Identity Crisis*, *supra* note 1, at 12–14.

11. *See* Act of Jul. 8, 1870, ch. 230, sec. 86, 16 Stat. 198 (providing that “the author, inventor, designer, or proprietor of any book, map, chart, dramatic or musical composition, engraving, cut, print, or photograph or negative thereof, or of a painting, drawing, chromo, statue, statuary, and of models or designs intended to be perfected as works of the fine arts . . . shall, upon complying with the provisions of this act, have the sole liberty of printing, reprinting, publishing, completing, copying, executing, finishing, and vending the same.” (emphasis added)).

12. 81 U.S. 511, 524–25 (1871).

13. *See* *Lehnbeuter v. Holthaus*, 105 U.S. 94, 96 (1882); *Smith v. Whitman Saddle Co.*, 148 U.S. 674, 678 (1893).

14. *See* Letter from PTO Commissions Frederick Allen, S. REP. NO. 57-1139, at 3 (1902).

15. *See id.*

16. *See* Act of May 9, 1902, ch. 783, sec. 4929, 32 Stat. 193.

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

element, and design patents, where ‘utility’ has nothing to do with it, but where ornamentation is the proper element of consideration.”¹⁸

Contemporary practitioners and commentators viewed the 1902 Act as closing the door on design patent protection for functional designs.¹⁹ The cases following 1902 Act clearly understood Congress’s intent to prevent design patents from protecting functionality. In *Ex parte Hartsborn*, Commissioner Allen rejected an application for a design of a wooden-shaped roller, observing that “[t]he 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.”²⁰ In *Weisgerber v. Clowney*,²¹ the district 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.”²² In *Royal Metal Manufacturing Co. v. Art Metal Works*,²³ the district court confirmed that “[a] monopoly of operating devices can be secured only by a mechanical patent.”²⁴ In *Bradley v. Eccles*,²⁵ the Second Circuit discussed the inherent lack of design patentability of a design for a washer for thill-couplers, a device for connecting the shaft of a cart or carriage to the animal drawing it.²⁶ A decade later, the First Circuit categorically excluded substantial categories from design patent eligibility:

18. H.R. Rep No. 57-1661, at 2 (1902).

19. See, e.g., Harold Binney, *Present Status of the Law Relating to Designs*, 25 ANNU. REP. A.B.A. 662, 669 (1902) (observing that the 1902 Act “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. . . . [W]hile 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. Holthaus* would be protected under the amended statute.” (emphasis added)).

20. 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, at 171–72 (1904).

21. 131 F. 477 (1904).

22. *Id.* at 480.

23. 121 F. 128 (C.C.S.D.N.Y. 1903).

24. *Id.* at 129.

25. 126 F. 945 (2d Cir. 1903).

26. See *id.* at 949 (“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.”).

[A]mong 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.²⁷

Judges recognized the potential for abuse of the design patent regime to protect mechanical inventions: “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.”²⁸

When the courts referred to designs “dictated by functionality” or “utilitarian considerations” as being ineligible, they did not intend by such a rubric to set a minimal threshold that could be easily cleared by showing that a design intertwined functional and nonfunctional elements or the availability of alternative designs. Rather, they were using this formulation to invalidate what they considered to be plainly ineligible subject matter. Design patents could not protect functionality. The courts were especially skeptical of design patents claiming simple and geometric shapes.²⁹ By the mid-1980s, intellectual

27. *Theodore W. Foster & Bro. Co. v. Tilden-Thurber Co.*, 200 F. 54, 56 (1st Cir. 1912) (citations omitted).

28. *Rose Mfg. Co. v. E. A. Whitehouse Mfg. Co.*, 201 F. 926, 929 (D.N.J. 1913).

29. *See, e.g., Applied Arts Corp. v. Grand Rapids Metalcraft Corp.*, 67 F.2d 428, 430 (6th Cir. 1933) (discussing a design patent on a combination of ash receiver and electric lighter for use in an automobile and overturning an infringement ruling noting that “[t]he 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.”); *Hueter v. Compco Corp.*, 179 F.2d 416, 417 (7th Cir. 1950) (invalidating a design patent for “Article Holding Guard or the Like” and noting that “[t]he 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. The wings extend back from the front bar at 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.”); *Tupper Corp. v. Tilton & Cook Co.*, 113 F. Supp. 805, 805–06 (D. Mass. 1953) (invalidating a design patent on a combined cigarette and match case and noting that “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

property practitioners viewed design patent eligibility for the shape of articles of manufacture, as opposed to surface ornamentation, as very limited.³⁰

The establishment of the U.S. Court of Appeals for the Federal Circuit in 1982 ushered in a new era that upended the 1902 Act's intent and reversed three-quarters of a century of regional circuit jurisprudence.³¹ Between 1988 and 2008, the Federal Circuit eviscerated the non-functionality limitation of design patents through its uncritical adoption of the "dictated by" short cut for dealing with easy cases as *the* test for assessing ornamentality/non-functionality, treating designs for which there are alternatives as non-functional, and viewing even simple designs comprising functional elements "as a whole." This jurisprudence enabled protection for minimalist and functional features of articles of manufacture, paving the way for the design patent flank of the "smartphone wars." After some apparent moderation of these questionable standards by employing a filtration infringement test in the 2010 *Richardson* decision,³² the Federal Circuit marginalized the filtration approach in *Apple v. Samsung*³³ and has since further eroded the ornamentality/non-functionality limitation,³⁴ causing the design patent muddle.

The symposium included contributions from leading design patent practitioners. Perry Saidman's advocacy in *Avia v. L.A. Gear*³⁵ played a critical role in steering the Federal Circuit away from the longstanding interpretation of limited design patent eligibility. He advocates broad design protection, and

cover is of the same general shape, being slightly larger so that it will slide down outside the wall of the lower part. . . . [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.").

30. See Thomas B. Lindgren, *The Sanctity of the Design Patent: Illusion or Reality? Twenty Years of Design Patent Litigation Since Compco v. Day-Brite Lighting, Inc., and Sears, Roebuck & Co. v. Stiffel Co.*, 10 OKLA. CITY U. L. REV. 195, 198 (1985); Ralph S. Brown, *Design Protection: An Overview*, 34 UCLA L. Rev. 1341, 1346 (1987); see also 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).

31. See *Identity Crisis*, *supra* note 1, at Sections V(B), (C), (E), (F).

32. *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293–94 (Fed. Cir. 2010) (stating 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." (citing *Lee v. Dayton-Hudson Corp.*, 838 F.2d 1186, 1188 (Fed. Cir. 1988) (citing 35 U.S.C. § 171 (1988))).

33. See *Apple Inc. v. Samsung Elecs. Co.*, 786 F.3d 983, 998 (Fed. Cir. 2015) (limiting *Richardson* to its facts); *Identity Crisis*, *supra* note 1, at 105–7.

34. See *Identity Crisis*, *supra* note 1, at 115–18.

35. See *Pensa, Inc. v. L.A. Gear California, Inc.*, 4 U.S.P.Q.2d 1016 (C.D. Cal. 1987), *aff'd sub. nom.*, *Avia Group International, Inc. v. L.A. Gear California, Inc.*, 853 F.2d 1557 (Fed. Cir. 1988).

represented Apple in seeking to overturn the *Richardson* decision.³⁶ Christopher Carani edited a volume on design protection and functionality and has advocated for a low eligibility bar in design protection law. We challenged them to scrutinize our finding that the Federal Circuit has turned its back on the 1902 Act and regional circuit law. To paraphrase Pat Benatar, we invited these advocates to “hit us with their best shot.”

While the symposium certainly produced some fireworks, no participant rebutted our core finding that the Federal Circuit flipped design eligibility doctrine on its head. We offered a straightforward test of the proposition: would the regional circuit cases come out differently under the Federal Circuit’s standards?

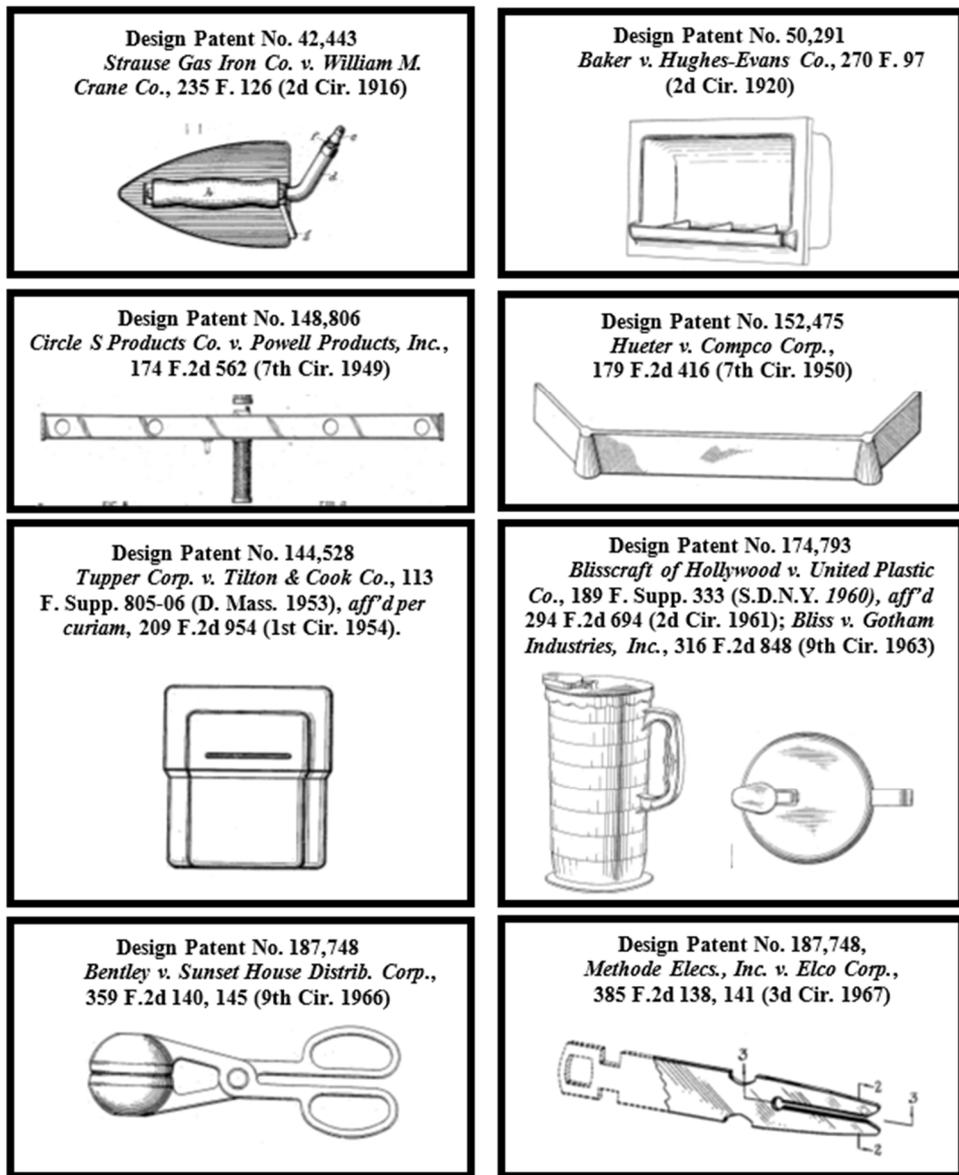
Figure 1 illustrates the major regional circuit design patent cases, all of which invalidated design patents. Taken together, the pre-Federal Circuit jurisprudence indicated that the non-functionality bar was considerable and based on the utility patent supremacy principle. As the Second Circuit explained in *Baker v. Hughes-Evans Co.*, while “the same device or article may exhibit patentable mechanical invention and a patentable design; 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.”³⁷ Practitioners and scholars viewed the doctrine in that way at the time that the Federal Circuit was established.³⁸

36. 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); Brief of Amicus Curiae Apple Inc. in Support of Plaintiff-Appellant’s Petition for Rehearing En Banc at 2, *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288 (Fed. Cir. 2010) (No. 2009-1354).

37. 270 F. 97, 99 (2d Cir. 1920).

38. See Brown, *supra* note 30; Lindgren, *supra* note 30.

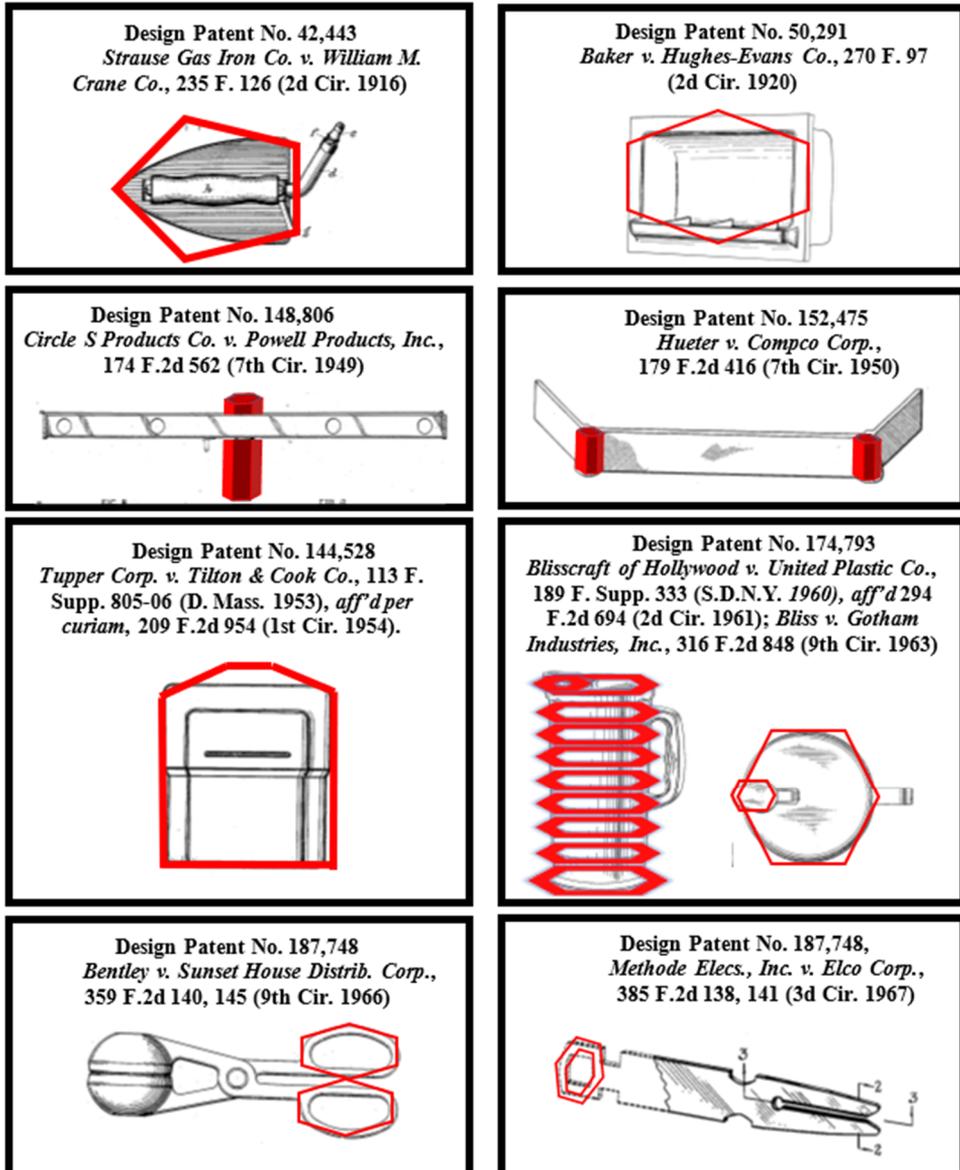
Figure 1: Regional Circuit Design Patent Eligibility Cases



As Figure 2 illustrates, each of these claimed designs could be reimagined, for example, using hexagons or pentagons in place of circular, oval, or square features. We don't think that the regional appellate courts were unaware of such options. Yet under Federal Circuit law, and the lax standards advocated by Mr. Saidman and Mr. Carani, all of these invalidated design patents would

pass muster today based on the Federal Circuit's "alternative designs" standard.

Figure 2: Regional Circuit Design Patent Eligibility Cases



The Federal Circuit, perhaps unwittingly, effected a drastic and profound shift in the law. As we noted in the lead article, the Federal Circuit has never referenced the critical 1902 Act nor seriously engaged the substantial and

harmonious regional appellate jurisprudence that preceded the Federal Circuit's establishment.³⁹

Mr. Saidman's and Mr. Carani's silence about our core thesis speaks volumes. Rather than engage with our examination of the 1902 Act, its legislative history, and the 80 years of regional circuit jurisprudence prior to the establishment of the U.S. Court of Appeals for the Federal Circuit, they essentially argue that design patents should protect functionality. The implication that Commissioner Allen, members of Congress at the turn of the 20th century, or regional circuit courts from 1902 through the early 1980s did not appreciate that "form follows function" in design is baseless. The concept traces back to Roman architect Marcus Vitruvius Pollio 2,000 years ago,⁴⁰ and was popularized in modern design theory by Louis Sullivan in the late nineteenth century.⁴¹ Furthermore, functional design had been protectable since at least 1790 as part of the utility patent regime!⁴²

We share the practitioners' admiration for the design accomplishments and wisdom of designers such as Dieter Rams, Charles Eames, and Louis Sullivan. Where we differ is that we see them as industrial designers and architects, not legislators or judges. The key issue, which Mr. Saidman and Mr. Carani overlook, is the utility patent supremacy principle. Congress and the regional appellate courts understood that function must enter the intellectual property domain through the utility patent door. How to operationalize that foundational principle of U.S. law is the challenge to which we now turn.

III. DESIGN PATENTS ARE SUBJECT TO THE SUPREMACY OF UTILITY PATENTS

Rather than challenging our core historical, interpretive, and jurisprudential findings, Mr. Saidman and Mr. Carani offer an approach that treats design patent examination as a rubber stamp, affording broad protection for functional overall designs, functional elements, and simple geometric shapes, without meeting the more exacting standards of the utility patent regime.⁴³ They ignore the 1902 legislation underlying the design patent regime

39. See *Identity Crisis*, *supra* note 1, at 64.

40. See Vitruvius, WIKIPEDIA (Nov. 2, 2021), <https://en.wikipedia.org/wiki/Vitruvius>; see also De architectura, WIKIPEDIA (Oct. 23, 2021), https://en.wikipedia.org/wiki/De_architectura.

41. See Louis Sullivan, *The Tall Office Building Artistically Considered*, LIPPINCOTT'S MONTHLY MAGAZINE March 1896, at 403; Louis Sullivan, WIKIPEDIA (Nov. 5, 2021), https://en.wikipedia.org/wiki/Louis_Sullivan.

42. See Patent Act of 1790, 1 Stat. 109.

43. Mr. Saidman bases his defense of the design patent regime (and his objection to courts filtering out unprotectable elements) in part on the relative rigor with which the Patent

and the need to fit design patent protection within the broader intellectual property schema.

Mr. Mauro and Mr. Morley ignore the challenge of disentangling form and function by contending that neuroscience shows “that no individual judge, lawyer, or legal academic can ever represent the hypothetical ordinary observer. . . .because there is too much real variation in how a given consumer population judges the shapes of objects in our everyday world.”⁴⁴ Thus, even if their preliminary empirical analysis is correct, it is of little relevance to the problem at hand. Congress in the 1902 Act and the Supreme Court in *Baker v. Selden* require courts to bar design patent protection for functionality. This limitation does not present a problem for original surface ornamentation or even many creative three-dimensional objects, but it does come into play for simple geometric and minimalist product designs.

Professor McKenna, by contrast, states that he supports the principle of utility patent supremacy and agrees with much of our research but nonetheless advocates preserving a role for design patent protection for functionality.⁴⁵ He also resists our suggestions for drawing on beneficial lessons from copyright and trademark law to prevent design patent law from encroaching upon utility patent supremacy. His opposition is based on a few outlier cases rather than

Office carries out its examination duties. See Perry J. Saidman, *A Primer on Design Patent Functionality*, 36 BERKELEY TECH. L.J. 147, 160 (2021) (“It is notable that copyright applications are not examined by the Copyright Office, whereas design patent applications undergo a rigorous examination by the U.S. Patent and Trademark Office (USPTO) resulting in a design patent that carries a statutory presumption of validity.” (emphasis added)). As we demonstrate below, see *infra* text accompanying notes 128–152, Mr. Saidman’s assertion is wrong as a matter of Copyright Office procedure and practice. The Copyright Office has been far more rigorous and faithful to statutory authority than the Patent Office in assessing non-functionality and originality. Mr. Carani bases his objection to courts filtering out unprotectable elements in part on the notion that a design has to be seen “as a whole,” including any functional features. See Christopher V. Carani, *All or Nothing At All: Design Patent’s Ornamentality Requirement and The Failings of Feature Filtration*, 36 BERKELEY TECH. L.J. 213, 215 (2021), (“All visual portions of a claimed design, even those with appearances that are functionally driven, have a visual relationship with the other constituent parts and ultimately contribute to the visual whole of the claimed design. . . . It cannot be overemphasized that the ‘right to exclude’ afforded by a design patent claim extends, and only extends, to the design *as a whole*, as claimed; the design patent claim does not provide any independent protection for individual visual features thereof.”). His analysis, however, overlooks or downplays the functionality and unoriginality of compilations of elements in useful articles. Many of the examples below illustrate this point. See *infra* Section III(A)(2).

44. Charles L. Mauro & Christopher Morley, *Why The Future of Design Patent Protections Will Rely on Modern Neuroscience, Not Constitutional and Legal Reversionism*, 36 BERKELEY TECH. L.J. 277, 282 (2021).

45. See Mark P. McKenna, *Fixing Functionality in Design Patent Law*, 36 BERKELEY TECH. L.J. 195, 208–10 (2021).

the most authoritative decisions addressing the landscape of intellectual property law.

A. RESPONDING TO THE DESIGN PATENT PRACTITIONERS

Mr. Saidman, Mr. Carani, and Mr. Mauro and Mr. Morley focus their commentaries on two propositions: (1) that any design, including minimal geometric shapes, should be eligible for design patent protection so long as there are alternative ways of achieving the same general type of utility, regardless of the efficacy of the claimed design; and (2) that it is improper for courts to filter out functional elements of a design, even if the overall design is trivially minimal, in assessing infringement.⁴⁶

1. *The Alternative Design Doctrine Is Limitless and Effectuates an Improper Rubber Stamp for Design Patent Eligibility*

The design patent practitioners contend that articles of manufacture that integrate form and function qualify for design patent protection so long as there are alternative designs capable of achieving the same general function. For them, the growing interest in viewing design as integrating form and function warrants expanding design patent protection to encompass functionality. Yet, this approach of form integrated with function is not something new that did not exist before the 1980s: minimal and functional designs existed in the nineteenth century and even before that time—the shape of a scythe, the configuration of a typewriter, or the design of a stove or radiator are but a few examples. In fact, stove and radiator manufacturers pushed for *copyright* protection for the decorative features of their wares precisely because the most significant utility patents had expired and they were looking for ways to differentiate their products in the growing marketplace.⁴⁷ As much as the design patent practitioners wish it were so, notable designers such as Dieter Rams, Charles Eames, and Louis Sullivan designed furniture and buildings, not design protection law. The 1902 Act remains the design patent law. Notwithstanding dozens of efforts to expand design protection over the past century, Congress has declined to do so.⁴⁸ And where it has

46. In addition, Mr. Mauro and Mr. Morley suggest that modern neuroscience research provides a solution to the confusion surrounding design patent protection. See Mauro & Morley, *supra* note 44, at 278–80. We will note that their suggestion, which is based on debatable neuroscience theory and empirical methods, overlooks the central role of judges and juries in assessing eligibility and infringement. It is difficult to see how their proposal adds much beyond another battle of the experts, as occurs in trademark survey evidence.

47. See *Identity Crisis*, *supra* note 1, at 8.

48. See 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, 26–61 (1997).

reformed the law, it has installed guardrails to prevent monopolization of functionality.⁴⁹ Furthermore, even if Congress were to take up reform, there are good reasons for retaining utility patent supremacy as a core channeling principle of intellectual property law.⁵⁰

The Supreme Court clearly recognized that Selden's accounting methods reflected integration of form and function.⁵¹ As illustrated in Figure 3, Selden implemented his accounting system through the use of graphic forms with lines and labels. Yet the Court concluded that accounting methods could not be protected through the backdoor of copyright law, even though there was good reason to doubt that the utility patent regime would protect Selden's accounting methods, which amounted to business methods and printed matter.⁵² The U.S. Constitution does not require Congress to grant intellectual property protection to all types of creativity and innovation. To the contrary, it merely authorizes Congress to establish such protections where it believes such protections will promote progress.⁵³

49. See Copyright Act of 1976, 17 U.S.C. § 101 (definition of pictorial, graphic, and sculptural works); Semiconductor Chip Protection Act, Pub. L. 98–620, 98 Stat. 3335 (1984), codified at 17 U.S.C. § 901–14 (providing for reverse engineering and independent development); Vessel Hull Design Protection Act, Pub. L. 105–304, 112 Stat. 2860 (1998), codified at 17 U.S.C. § 1301–20 (excluding unoriginal, staple, and commonplace (“standard geometric”) designs, and designs dictated solely by utilitarian considerations).

50. See *Identity Crisis*, *supra* note 1, at 140, 149.

51. See *Baker v. Selden*, 101 U.S. 99, 104–05 (1879).

52. See R. CARL MOY, *MOY'S WALKER ON PATENTS* § 5:29 (4th ed. 2007) (“Until recently it had been considered well established that [business] methods were non-statutory.”); Peter S. Menell, *Forty Years Of Wondering In The Wilderness And No Closer To The Promised Land: Bilski's Superficial Textualism And The Missed Opportunity To Return Patent Law To Its Technology Mooring*, 63 STAN. L. REV. 1289, 1292–95 (2011) (tracing the roots of utility patent eligibility and the business method exclusion); DONALD S. CHISUM, *CHISUM ON PATENTS* § 1.02[4], at 1–25, 26 (2009) (explaining that the “printed matter doctrine” dictates that “information recorded in [a] substrate or medium” is not eligible for patent protection if the advance over the prior art resides in the “content of the information”); Morton C. Jacobs, Note, *The Patentability of Printed Matter: Critique and Proposal*, 18 GEO. WASH. L. REV. 475, 476 (1950) (noting that printed matter doctrine originated as a corollary of the exclusion of business method from patent eligibility); *Hotel Security Checking Co. v. Lorraine Co.*, 160 Fed. 467 (2d Cir. 1908) (bookkeeping form); *Ex parte Bierce*, 1877 C. D. 46 (Comm. of Pat. 1877) (ticket); *Ex parte Berolzheimer*, 1870 C. D. 33 (Comm. of Pat. 1870) (bank check); *Ex parte Abraham*, 1869 C. D. 59 (Comm. of Pat. 1869) (method of using stamps to identify fraud).

53. See U.S. CONST. art. I, § 8, cl. 8.

Figure 3: Selden's Accounting Form

CONDENSED LEDGER.													
Brought Forw'd.		ON TIME.		DATE:				DISTRIBUTION.		TOTAL.		BALANCE.	
DR.	CR.	DR.	CR.	DR.	CR.	EQUIPMENTS & SECURITIES.		DR.	CR.	DR.	CR.	DR.	CR.
						CASH.							
						DR. CR.							
						\$	\$						
						Carried Forward..							

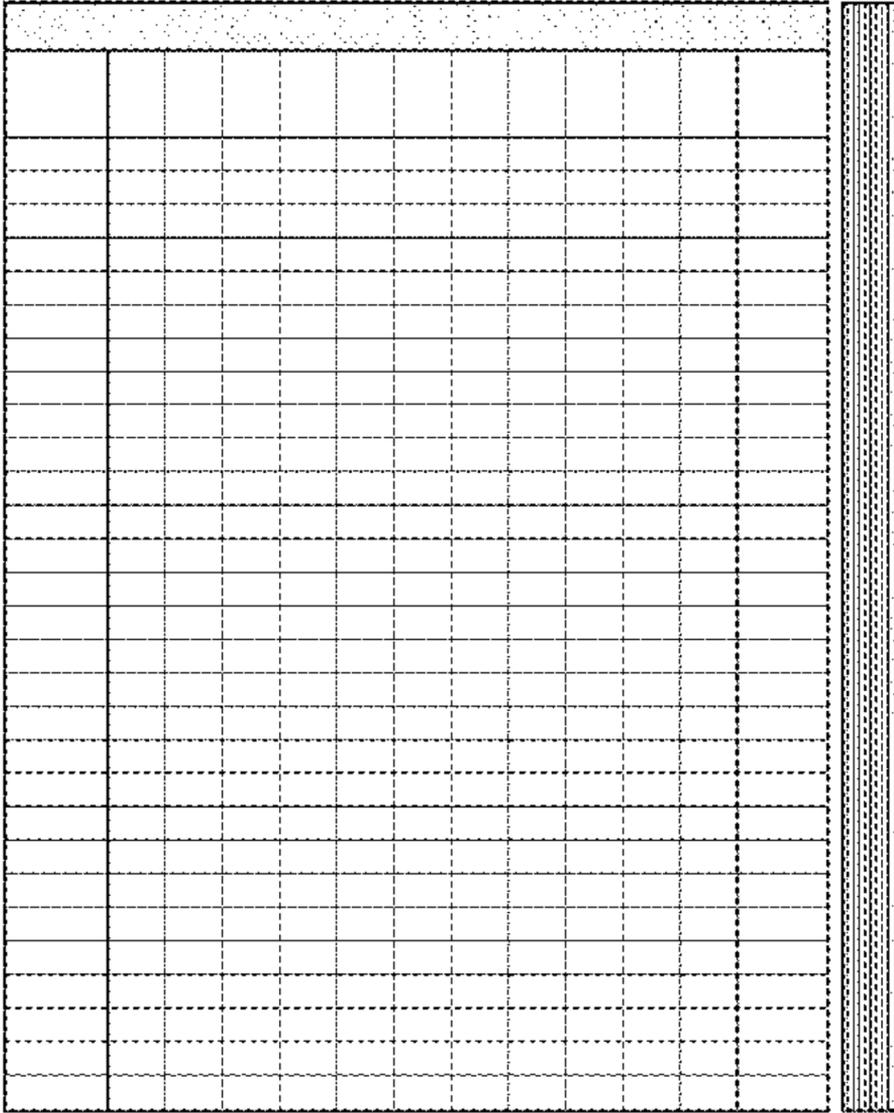
As with the Copyright Act, Congress did not intend design patent law to serve as a backdoor for protecting functionality. Like the Copyright Act of 1976, the 1902 design patent act aimed to protect against that very subterfuge. As our lead paper chronicles, contemporary courts, practitioners, and treatise writers fully appreciated that limitation. And regional circuit courts throughout the nation guarded against such stratagems for eighty years.⁵⁴

Notwithstanding the 1902 Act's intent and the logic of the Supreme Court's seminal *Baker v. Selden* decision, the Patent Office has taken the Federal Circuit's lax standards as gospel. Just last year, the Patent Office granted design patent protection for a writing tablet that, by comparison, elevates Selden's forms to high art.⁵⁵

54. See *Identity Crisis*, *supra* note 1, at 28–31.

55. See U.S. Design Patent D902,303 (Nov. 17, 2020) (writing tablet with tab lines).

Figure 4: U.S. Design Patent D902,303



The inappropriateness, indeed absurdity, of this design patent is on par with the simple geometric bolts that Mr. Saidman uses to support his view that nearly any functional or minimal design qualifies for design patent eligibility.⁵⁶ We are reminded of the Second Circuit's observation at the time that the 1902 Act was passed that "[t]he washer, like the horseshoe calk, is not intended for

56. See Saidman, *supra* note 43, at 153.

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.”⁵⁷ Even the CCPA, in an opinion penned by Judge Giles Rich, questioned the notion that a gasket for the threaded bunghole of a fifty-five gallon drum could qualify for a design patent.⁵⁸ Yet Mr. Saidman considers granting of design patents for bolts to be evidence of a well-functioning and balanced design patent system.

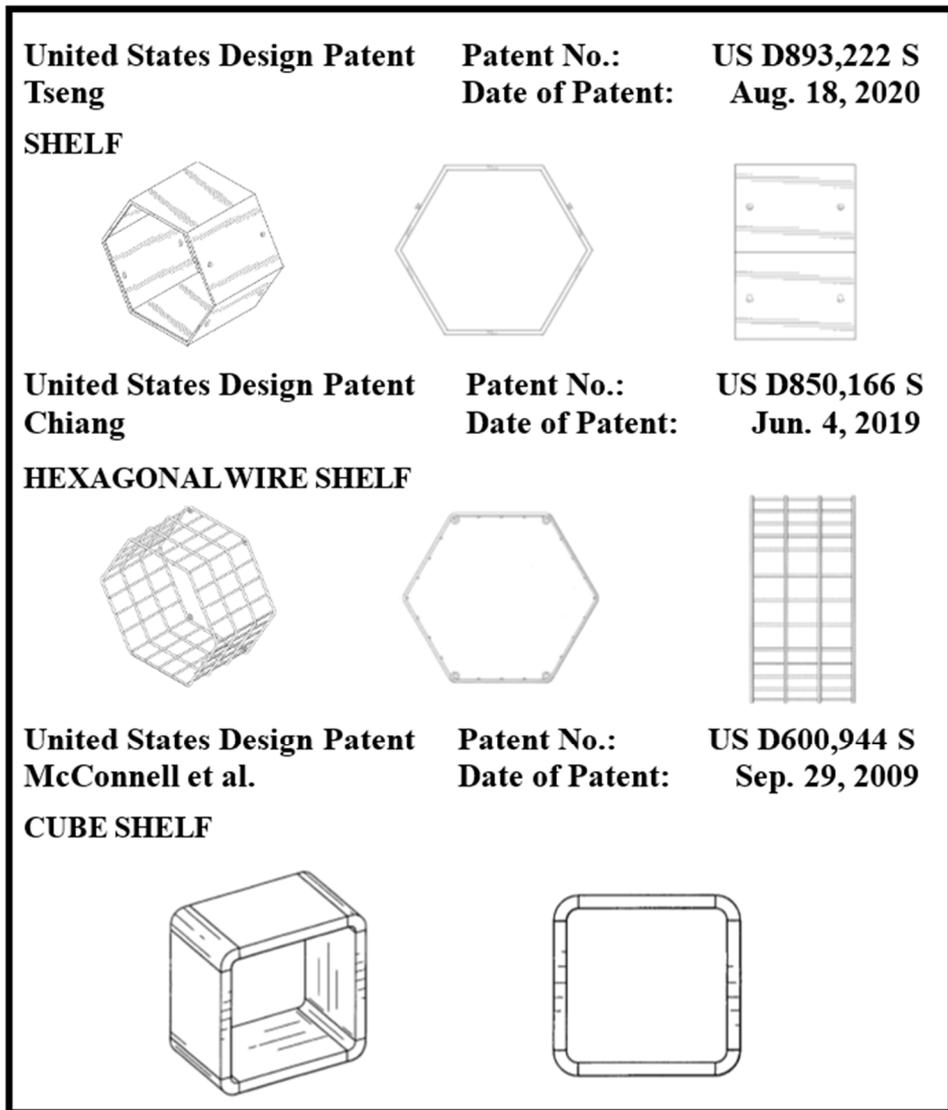
A plethora of other design patents claiming simple geometric shapes shows just how far the design patent law has drifted from its legislative mooring. Figure 5 illustrates some recent doozies.⁵⁹

57. *Bradley v. Eccles*, 126 F. 945, 949 (2d Cir. 1903).

58. *See In re Carletti*, 328 F.2d 1020, 1022 (C.C.P.A. 1964) (observing that “[t]he 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 ornamental design for the simple reason that it is not ‘ornamental’—was not created for the purpose of ornamenting.”).

59. *See* U.S. Design Patent, D893,222 (Aug. 18, 2020) (“Shelf”); U.S. Design Patent, D850,166 (Jun 4, 2019) (“Hexagonal Wire Shelf”); U.S. Design Patent, D600,944 (Sep. 29, 2009) (“Cube Shelf”).

Figure 5: Simple Geometric Shapes



The granting of the cube shelf design patent possibly explains the low bar applied to Apple's smartphone and tablet designs.

There can be little doubt that the Federal Circuit has reduced the design patent system to a registration system with little risk of invalidation. The Federal Circuit's recognition of the alternative design test as a test for ornamentality/non-functionality eligibility has overridden Congress's intent to ensure a meaningful constraint on design patent protection for functionality. As we show in the lead paper, the alternative design test serves as a rubber

stamp for design patent eligibility and imposes a nearly impossible burden on those seeking to invalidate design patents on functionality grounds. It ignores the possibility that some shapes are better than others. Under this test, as long as there are alternative designs that achieve the same general function, regardless of efficacy, the design patent is not invalid.⁶⁰ As basic logic and jurisprudence show, there are almost always alternative designs “available.”

In line with our analysis, the European Court of Justice has recently questioned the alternative design test, also known as the multiplicity of forms test.⁶¹ In response to DOCERAM’s action asserting infringement of its EU Community Design, CeramTex brought an invalidity counterclaim asserting that the features of appearance of the applicable products were dictated solely by their technical function.⁶² The case focused on the interpretation of Article 8(1) of the European Union Community Designs Regulation, which provides that “[a] Community design shall not subsist in features of appearance of a product which are solely dictated by its technical function.”⁶³ The European Court of Justice held:

Article 8(1) of Regulation No 6/2002 excludes protection under the law on Community designs for features of appearance of a product where considerations other than the need for that product to fulfil its technical function, in particular those related to the visual aspect, have not played any role in the choice of those features, *even if other designs fulfilling the same function exist...* Therefore... Article 8(1) of Regulation No 6/2002 must be interpreted as meaning that in order to determine whether the features of appearance of a product are exclusively dictated by its technical function, *it must be established that*

60. See *Identity Crisis*, *supra* note 1, at 61.

61. See Case C-395/16, DOCERAM GmbH v. CeramTec GmbH, EU:C:2018:172 (Mar. 8, 2018). According to a survey conducted as part of a larger legal review ordered by the European Commission, the majority of EU industry stakeholders favored looking at the design at hand to determine whether each feature is dictated by technical function over the alternative designs (multiplicity of forms) test. See *Legal review on industrial design protection in Europe*, at 84 (Apr. 15, 2016), <https://op.europa.eu/en/publication-detail/-/publication/43fd4a5c-6c26-4639-ac9a-281ab57687de>. This contradicts Mr. Saidman’s and Mr. Carani’s suggestion that their view is representative of industry preferences. Just to be clear, we do not believe that this issue should be decided by industry preferences. Rather, courts should faithfully apply the law. And while industry preferences are relevant to statutory reform, policymakers should ensure that all segments of the market and society are considered.

62. DOCERAM, EU:C:2018:172, ¶ 12.

63. Article 8(1), Council Regulation (EC) No 6/2002 of 12 December 2001 on Community designs (OJ 2002 L 3, p. 5).

*the technical function is the only factor which determined those features, the existence of alternative designs not being decisive in that regard.*⁶⁴

The European Court of Justice held that such interpretation is supported by the objective reflected in the Community Designs Regulation to prevent “technological innovation from being hampered by granting design protection to features dictated solely by a technical function of a product”⁶⁵ and is in line with Recital 10 of the Community Designs Regulation.⁶⁶ Essentially, the European Court of Justice held that the functionality exclusion of Article 8(1) is about the role of competition in promoting technological innovation. In that context, the European Court of Justice explained that

if the existence of alternative designs fulfilling the same function as that of the product concerned was sufficient in itself to exclude the application of Article 8(1) of Regulation No 6/2002, a single economic operator would be able to obtain several registrations as a Community design of different possible forms of a product incorporating features of appearance of that product which are exclusively dictated by its technical function. That would enable such an operator to benefit, with regard to such a product, from exclusive protection which is, in practice, equivalent to that offered by a [utility] patent, but without being subject to the conditions applicable for obtaining the latter, which would prevent competitors offering a product incorporating certain functional features or limit the possible technical solutions, thereby depriving Article 8(1) of its full effectiveness.⁶⁷

Hence, the European Court of Justice found that not only does the alternative design test do a bad job at weeding out functionality, it is also prone to manipulation and risks a single firm obtaining a monopoly over functional

64. *DOCERAM*, EU:C:2018:172, ¶¶ 31–32 (emphases added); see also *id.* at ¶¶ 37–38 (“[S]uch an assessment must be made, in particular, having regard to the design at issue, the objective circumstances indicative of the reasons which dictated the choice of features of appearance of the product concerned, or information on its use or the existence of alternative designs which fulfil the same technical function, provided that those circumstances, data, or information as to the existence of alternative designs are supported by reliable evidence. Having regard to the foregoing considerations . . . Article 8(1) of Regulation No 6/2002 must be interpreted as meaning that, in order to determine whether the relevant features of appearance of a product are solely dictated by its technical function, within the meaning of that provision, the national court must take account of all the objective circumstances relevant to each individual case. In that regard, there is no need to base those findings on the perception of an ‘objective observer.’”).

65. *Id.* at ¶ 29.

66. Council Regulation (EC) No 6/2002 of 12 December 2001 on Community designs (OJ 2002 L 3, p. 2), Recital 10.

67. *DOCERAM*, EU:C:2018:172, ¶ 30.

features akin to a utility patent. In the BCLT Symposium discussion, Mr. Saidman acknowledged the legitimacy of this point.⁶⁸

It is easy to see why some design patent practitioners applaud the current lax regime. But it is difficult to see how it comports with the 1902 Act, *Baker v. Selden*, or the needs of a coherent intellectual property system. Because they specialize in the design protection field and advocate for designers,⁶⁹ they miss the intellectual property forest for the design patent trees.

2. *Infringement Stage Filtration Serves a Vital Role in Ensuring That Design Patents Do Not Monopolize Functionality*

In addition to advocating rubber stamping of all manner of functional design patent applications, the design patent practitioners oppose bringing functionality policy concerns into the infringement stage of analysis. In 1988, the same year that Mr. Saidman prevailed in his appeal of *Avia v. L.A. Gear*, the Federal Circuit appeared receptive to taking functionality considerations into account in assessing infringement.⁷⁰ Such an approach paralleled Judge Learned Hand's seminal abstraction-filtration-comparison (AFC) framework,⁷¹ an approach that gained renewed traction in ensuring that copyright protection for computer software did not monopolize functionality.⁷² Similarly, regional circuit courts have augmented the AFC framework to ensure that copyrights on useful articles do not monopolize functional features.⁷³

68. See Practitioners and Comparative Law Panel, from 00:56:22 to 00:57:00.

69. In an effort to appear balanced, Mr. Saidman points to the Federal Circuit's decision in *Best Lock Corp. v. ILCO Unican Corp.*, 94 F.3d 1563 (Fed. Cir. 1996), a case holding that the cut pattern on a key blade is not eligible for design patent protection because it uniquely opens a corresponding lock, as an example of a design dictated solely by functionality. He grudgingly characterizes this case as the exception that proves the rule that nearly every design is capable of alternative configurations. See Saidman, *supra* note 43, at 158–59 (asserting that “critics may posit that very few visual designs do not have alternatives that perform the same function” and “[t]here are an infinite number of choices of product designs available to a competitor with which it may use the same utilitarian features without copying the designer's specific product”).

70. See *Lee v. Dayton-Hudson Corp.*, 838 F.2d 1186, 1188–89 (Fed. Cir. 1988).

71. See *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930).

72. See *Comput. Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693, 700, 707–10 (2d Cir. 1992); 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).

73. See *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

Design patent practitioners would love a clear, bright, and broad scope of protection.⁷⁴ While we certainly appreciate the benefits of clear rights, it is important to recognize that we are operating in a domain that requires careful balancing of competition and innovation concerns.

Navigating the design patent-utility patent boundary is analogous to navigating copyright law's idea-expression dichotomy and useful article separability doctrine and trademark law's functionality doctrine. As Judge Learned Hand recognized nearly a century ago, achieving the proper balance inevitably entails some subtlety, finesse, and uncertainty:

Cir. 2005) (“[T]he video display is afforded protection only from virtually identical copying.”); *Satava v. Lowry*, 323 F.3d 805, 811 (9th Cir. 2003) (addressing a jelly fish sculpture: “a combination of unprotectable elements is eligible for copyright protection only if those elements are numerous enough and their selection and arrangement original enough that their combination constitutes an original work of authorship”); *Apple Comput., Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1446 (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, 205 (9th Cir. 1989) (addressing layout for a day planner and stating “copyright infringement of compilations consisting largely of uncopyrightable elements should not be found in the absence of ‘bodily appropriation of expression’” (quoting *Worth v. Selchow & Rughter Co.*, 827 F.2d 569, 573 (9th Cir. 1987))).

74. Mr. Saidman contends that courts ought not to filter out unprotectable aspects of designs because design patents, unlike copyrights, come with a presumption of validity. *See* Saidman, *supra* note 43, at 149, 152, 160, 161, 166. The presumption of validity applies to validity analysis, not infringement analysis. Both valid copyrights and valid design patents are subject to jurisprudential infringement doctrines. *See* *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293 (Fed. Cir. 2010) (“The district court here properly factored out the functional aspects of Richardson’s design as part of its claim construction.”); *Unidynamics Corp. v. Automatic Prods. Int’l*, 157 F.3d 1311, 1323–24 (Fed. Cir. 1998) (explaining that “the accused device must appropriate the novelty in the patented device which distinguishes it from the prior art” (quoting *Litton Sys., Inc. v. Whirlpool Corp.*, 728 F.2d 1423, 1444 (Fed. Cir. 1984) (quoting *Sears, Roebuck & Co. v. Talge*, 140 F.2d 395, 396 (8th Cir. 1944)))); *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.”); *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 825 (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.”); *Lee v. Dayton-Hudson Corp.*, 838 F.2d 1186, 1188 (Fed. Cir. 1988) (holding that a design patent, unlike a utility patent, limits protection to the ornamental design of the article and “[t]hus it is the non-functional, design aspects that are pertinent to determinations of infringement” and quoting in a footnote Hon. Giles Rich’s statement to Congress that “the great bulk of industrial design is simply not protectable by design patents.” (quoting *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))). Such doctrines play a critical role in ensuring the integrity of the overall intellectual property system.

Upon any work . . . a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the play is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his 'ideas,' to which, apart from their expression, his property is never extended. Nobody has ever been able to fix that boundary, and nobody ever can.⁷⁵

A filtration framework is essential to achieving balance within the intellectual property system. Mr. Mauro and Mr. Morley's neuroscience-based empirical ordinary observer test (EOOT) ignores the central legal question and brings into play a needless battle of the neuroscience experts. Even if EOOT was reliable, which we cannot assess based on the limited disclosures in Mr. Mauro and Mr. Morley's paper, it provides no mechanism for assessing the critical balances required by intellectual property law.

Design patent judges can and should use filtration to frame the infringement analysis so as to ensure that they and their juries do not inadvertently allow monopolization of functionality through the backdoor of design patents. The Symposium revealed that the design patent practitioners misapprehended the filtration framework. Using *Richardson v. Stanley Works, Inc.*⁷⁶ to illustrate his critique of our analysis, Mr. Saidman asserted that filtration meant airbrushing out the *entirety* of the three components of the multi-function tool design at issue.⁷⁷ The AFC jurisprudence does not use such a broad-brush approach.

The litigation concerning whether the Bratz line of fashion dolls infringed the drawings on which the dolls were based illustrates how such claim construction can be conducted usefully in design cases.⁷⁸ The copyright protected drawings were based significantly on human features and prior works. After extensive pre-trial briefing, the court provided the following jury instruction to aid the jury in evaluating whether the Bratz dolls infringed the protectable elements of the drawings:

75. *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930) (citations omitted).

76. 597 F.3d 1288 (Fed. Cir. 2010).

77. *See* Practitioners and Comparative Law Panel, from 00:11:50 to 00:13:30.

78. *See* *Bryant v. Mattel, Inc.*, 2011 WL 13238416 (C.D. Cal. Apr. 21, 2011); *Mattel, Inc. v. MGA Entertainment, Inc.*, 616 F.3d 904 (9th Cir. 2010). In the interests of full disclosure, we note that Peter Menell consulted for MGA on the use of AFC in the Bratz litigation.

Table 1: Jury Instruction in the Bratz Litigation⁷⁹

COPYRIGHT INFRINGEMENT — PROTECTABLE/UNPROTECTABLE ELEMENTS: DOLL DRAWINGS	
Protectable Elements Include:	Unprotectable Elements Include:
The precise shape, size, and placement of the dolls' anatomical features	The resemblance or similarity to human form (the presence of hair, head, eyes, a nose, mouth, lips, ears, a neck, legs, arms, and a torso)
Hair-dos	Exaggerated features, including but not limited to an oversized head, oversized eyes, large lips, oversized feet, slim arms, a diminished nose, and a long torso
Face paint	Idealized features, such as luscious lips, high cheekbones, almond-shaped eyes, a slim waist, a small nose, and long limbs
Fashion outfits and accessories	The idea of a young, fashion-forward female with an attitude, and the expression traditionally associated with that idea, including but not limited to heavy make-up, an "urban" look, defiant poses, defiant gazes, angular eyebrows, trendy clothing, shoes and accessories
The precise combination of features	Features shared by a particular race or ethnicity (e.g., skin tone)

Judge Carter did not airbrush out the entirety of the dolls' forms. Rather, he filtered out unoriginal features and unoriginal compilations of elements while reinforcing the protection of the particular expression associated with those features and elements.

Employing such case management procedures in design patent litigation would substantially assist judges and juries in applying the careful balances involved in addressing the functionality and non-originality limitations on design patent protection. To focus the analysis for design patents, we suggest a separability-filtration-comparison (SFC) framework. SFC begins with separability, which has the analogous function to abstraction—but instead of abstracting to differentiate expression (protectable) from idea (unprotectable), separability divides the ornamental (protectable) from the functional (unprotectable). Judges should construe the design patent claim to distinguish between protectable and unprotectable aspects, similar to a *Markman* pre-trial hearing.⁸⁰

79. Bryant v. Mattel, Inc., 2011 WL 13238416 (C.D. Cal. Apr. 21, 2011) (Instruction No. 47).

80. See Peter S. Menell, *Economic Analysis of Intellectual Property Notice and Disclosure*, in RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW, VOLUME I:

The separability/filtration framework is not merely an approach imported from copyright. It bears similarity to copyright jurisprudence because both regimes apply the utility patent supremacy principle reflected in *Baker v. Selden*. Design patent jurisprudence has long recognized the separability imperative⁸¹ and even some Federal Circuit cases apply separability/filtration to exclude or discount functional features.⁸² This line of cases should be used to correct the Federal Circuit's over-protective course.

SFC provides a further safety valve at the comparison stage. Where designs are mostly functional and are only narrowly ornamental, courts should require a higher standard of virtual identity⁸³ rather than merely "sameness of appearance"/substantial identity.⁸⁴ Similarly, although copyright law generally refers to the standard for infringement as "substantial similarity of protected expression," regional circuit courts have implemented a sliding scale that adjusts the similarity threshold to protect against overprotecting thinly protected works. Where works are only thinly protected, courts require virtual identity rather than merely substantial similarity.⁸⁵

THEORY 453–54 (Ben Depoorter & Peter S. Menell eds., 2019) (discussing systematic judicial procedures for determining copyright scope); *Harbor Software v. Applied Sys.*, 925 F. Supp. 1042, 1046 (S.D.N.Y. 1996) (observing that copyright "filtration analysis is a matter of law for the Court, rather than for the jury" based on an analogy to *Markman v. Westview Instruments*, 517 U.S. 370 (1996)).

81. See *Baker v. Hughes-Evans Co.*, 270 F. 97, 99 (2d Cir. 1920) (explaining that "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.").

82. See *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293 (Fed. Cir. 2010); *Unidynamics Corp. v. Automatic Prods. Int'l*, 157 F.3d 1311, 1323–24 (Fed. Cir. 1998); *OddzOn Prods. v. Just Toys*, 122 F.3d 1396, 1405 (Fed. Cir. 1997); *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 825 (Fed. Cir. 1992); *Lee v. Dayton-Hudson Corp.*, 838 F.2d 1186, 1188 (Fed. Cir. 1988).

83. See *Applied Arts Corp. v. Grand Rapids Metalcraft Corp.*, 67 F.2d 428, 430 (6th Cir. 1933) ("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." (emphasis added)); *Theodore W. Foster & Bro. Co. v. Tilden-Thurber Co.*, 200 F. 54, 56 (1st Cir. 1912) (noting 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*" (citation omitted)).

84. See *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 670 (2008).

85. See *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

At the Symposium, Mr. Carani and Mr. Saidman contended that using a filtration framework would be out of step with design protection standards.⁸⁶ However, as Professor Estelle Derclaye pointed out⁸⁷ and as explicated in Mr. Carani's edited book about functionality in design rights,⁸⁸ European Union design law applies filtration to designs that include unprotectable functional features. Moreover, Recital 10 of the European Union Community Designs Regulation specifically instructs:

Technological innovation should not be hampered by granting design protection to features dictated solely by a technical function. It is understood that this does not entail that a design must have an aesthetic quality. Likewise, the interoperability of products of different makes should not be hindered by extending protection to the design of mechanical fittings. *Consequently, those features of a design which are excluded from protection for those reasons should not be taken into consideration for the purpose of assessing whether other features of the design fulfil the requirements for protection.*⁸⁹

Thus, the European Union considers filtration to be an appropriate, indeed essential, part of a balanced design protection regime.⁹⁰

Mr. Carani also contended that filtration would run against the need to look at the design “as a whole.” He argued that designs should not be dissected, as all parts of a given design participate in the visual end result.⁹¹ We

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, 812 (9th Cir. 2003); *Apple Comput., Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1446 (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, 205 (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 *Worth v. Selchow & Rughter Co.*, 827 F.2d 569, 573 (9th Cir. 1987))); *Data 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).

86. See Practitioners and Comparative Law Panel, e.g., from 00:15:15 to 00:15:48 (Mr. Carani) and from 00:11:50 to 00:13:30 (Mr. Saidman).

87. See Practitioners and Comparative Law Panel, from 1:04:48 to 1:12:26, and Professor Estelle Derclaye's slides, at slide 7.

88. See Susie P. Arnesen, *European Union, in DESIGN RIGHTS: FUNCTIONALITY AND SCOPE OF PROTECTION* 53–82 (Christopher V. Carani ed., 2017).

89. See Council Regulation (EC) No 6/2002 of 12 December 2001 on Community Designs (OJ 2002 L 3, p. 1), Recital 10 (emphasis added).

90. See *supra* text accompanying notes 61–68.

91. See Carani, *supra* note 43, at 217 (“But the concern over the inclusion of individual features having appearances that are driven partially, or even wholly, by functional

disagree for several reasons. First, Section 171 does not restrict the ornamentality/non-functionality examination.

Second, design patents are often obtained for *a specific part, component, or feature* of a design for an article of manufacture, and therefore often do not represent the whole design of such an article.⁹² Many designs, by virtue of including claimed and unclaimed parts, protect distinct features and not whole designs. There is no point in treating partial designs as “whole.”⁹³

Third, when conducting a novelty or non-obviousness examination, the design patent examiner or the court considers distinct features of previous designs as prior art and does not merely look at previous designs “as a whole.” Since a novelty or non-obviousness examination is in essence a backward-looking infringement examination, infringement analysis should follow a similar logic. In other words, just as a patent examiner or an accused device maker can raise Section 102 or 103 arguments against a design patent applicant or design patentee seeking to monopolize a design, the accused device maker ought to be able to dissect the claimed design into relevant and non-relevant elements as part of its infringement defense. Although the Federal Circuit rejected the “point of novelty” test and instructed lower courts to view design

consideration is often the cited reasoning for engaging in the wrongful filtration practice. It cannot be overemphasized that the ‘right to exclude’ afforded by a design patent claim extends, and only extends, to the design *as a whole*, as claimed; the design patent claim does not provide any independent protection for individual visual features thereof. Accordingly, no individual visual features of the overall claim should be filtered out. A design patent claim rises and falls on its overall appearance. All or nothing at all.” (emphasis in original)).

92. See, e.g., Ms. Elizabeth Ferill’s comment in the Practitioners and Comparative Law Panel, starting on 11:13:45; see also *In re Zahn*, 617 F.2d 261, 268 (C.C.P.A. 1980).

93. See Sarah Burstein, *Whole Designs*, 92 U. Colo. L. Rev. 182, 191 (2021) (“Importantly, for both continuation and other applications, neither the USPTO nor the Federal Circuit limit fragment claims to important, distinctive, or salient design features. So it is not unusual for applicants to claim very small or visually insignificant fragments of a larger design.”). Professor Sarah Burstein points out that this is problematic for ever-greening reasons. See *id.* at 191–92; Sarah Burstein, *How Design Patent Law Lost Its Shape*, 41 Cardozo L. Rev. 555, 603–04 (2019) (“One limit on continuation and divisional applications is that they are not supposed to contain any ‘new matter.’ According to the USPTO, changing a solid line to a broken line or vice versa in a design patent drawing does not constitute the addition of ‘new matter.’ Therefore, an applicant can significantly alter the scope of their claims over time by filing a string of related applications with different lines—or parts thereof—shown in solid and broken lines. This ‘daisy-chain’ technique allows design patent applicants to claim basically whatever they want, whenever they want. They can even go back to the USPTO and capture competing products that were introduced after the first design patent application was filed—even if those competing products did not infringe the original patent claim.”(citations and some quotation marks omitted)).

patents as a whole in *Egyptian Goddess*,⁹⁴ the court recognized and endorsed the use of filtration in infringement analysis.⁹⁵

Fourth, and most importantly, when form and function merge—whether it happens in a partial or a whole design—protecting the form *is* protecting the function. Thus, unless such design meets the higher threshold of utility patents, design patent protection would constitute a “surprise and a fraud upon the public”⁹⁶ and undermine legitimate free market competition.

The design patent practitioners also contend that filtration analysis leads to broader claim scope by recognizing protection for components of overall designs and undermines the statutory presumption of validity.⁹⁷ Neither assertion holds water if courts faithfully conduct their analysis. Filtering out elements that should not have been granted protection in the first place is not a problem. Similarly, claim construction does not undermine the presumption of validity. It is an essential part of faithfully implementing patent law.

94. See *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 672–79 (Fed. Cir. 2008) (en banc).

95. See *Identity Crisis*, *supra* note 1, at 82; *Egyptian Goddess, Inc.*, 543 F.3d at 680 (“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 (emphasis added)).

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

97. For the argument that filtration leads to broader claim scope, see, for example, Carani, *supra* note 43, at 216–17 (“Filtering out visual elements leads to unwanted and unintended consequences such as broadening the design patent claim beyond that which the patentee created, and that which the [USPTO] examined and granted.”), and at 228 (“Feature filtration leads to an unwanted, post hoc, *broadening* of the design patent claim.”); Saidman, *supra* note 43, at 151 (“[T]he scope of the patent is broader if utilitarian elements are not part of the claim; conversely, the more utilitarian elements that are included in the claim the more narrow is the claim, having the effect of limiting the universe of products that might infringe it.”). Mr. Saidman and Mr. Carani offer similar comments on the Practitioners and Comparative Law Panel, from 1:12:40 to 1:13:23. For the argument that filtration undermines the statutory presumption of validity, see Carani, *supra* note 43, at 226 (“[T]he presumption of validity and its underpinnings easily fall apart under the feature filtration approach because a judicially construed claim (with portions of the whole ‘factored out’) can be *fundamentally* different from the claim examined and issued by the USPTO.”), and Ms. Ferill’s and Mr. Carani’s comments in the Practitioners and Comparative Law Panel, from 1:13:24 to 1:15:44.

B. PROFESSOR MCKENNA'S CRITIQUE OF THE LESSONS FROM
COPYRIGHT AND TRADEMARK LAW AND APPARENT DEFENSE OF
DESIGN PATENT PROTECTION FOR FUNCTIONALITY

Although Professor McKenna agrees with much of our analysis, we disagree with aspects of his commentary. At several places he substitutes inaccurate characterizations for our position, as we explain below. To the extent that Professor McKenna contends that the 1902 Act, the regional case law pre-Federal Circuit, or *Baker v. Selden* support or enable affording protection for functionality under design patent law, we strongly disagree. Furthermore, we are skeptical that extending design protection to encompass functionality, as Professor McKenna seems to suggest, would be sound intellectual property policy.

Professor McKenna begins his commentary by asserting that the design patent regime is not copyright-based, suggesting we claim that design patents *today* are really, positively, a *form* of copyright protection.⁹⁸ To be clear, we fully recognize that design patents are governed by Title 35 and not Title 17 of the U.S. Code, but for purposes of the functionality inquiry, it is a distinction without a difference. Appearances, labels, and U.S. Code designations can be deceptive. That is the reason for our reference to design patent law's *identity crisis*. Our article presents two principal lines of analysis, one historical and one substantive. As regards history, the design patent statute was modeled after the English design copyright statute and in its early draft proposed a "sole and exclusive copy-right" for the proprietor of any "new and original design" for specified articles of manufacture.⁹⁹ The 1902 Act, as faithfully interpreted by regional circuit courts, implemented a parsimonious approach to design patent protection that respected the utility patent supremacy principle. Unfortunately, the Federal Circuit ignored and misread the statute and that jurisprudence. As regards the substance (design patent subject matter), the design patent regime is far closer in character and prudential concerns about eligibility to the copyright regime than it is to utility patents. Professor McKenna appears to agree with us on both lines of analysis.

Professor McKenna defends design patent protection for functionality. He supports this position by contending that the central problem in intellectual property law's treatment of design is the perception that ornamentality and functionality are opposites.¹⁰⁰ Just to be clear, we did not suggest ornamentality and functionality are inherently opposite. Professor McKenna acknowledges

98. See McKenna, *supra* note 45, at 195.

99. See *Identity Crisis*, *supra* note 1, at 9.

100. See McKenna, *supra* note 45, at 197.

that ornamentality and functionality can be antipodal and offers little explanation for why this distinction is of great significance for design patent law. Based on other aspects of design patent law and the history surrounding the ornamentality/non-functionality issue, we are skeptical that renewed focus on ornamentality as an aesthetic requirement is worth the candle for the following reasons.

As we explain in the lead paper, judges shifted their focus from assessing ornamentality to non-functionality relatively soon after the passage of the 1902 Act for the pragmatic reason that they were ill-equipped by training to assess art.¹⁰¹ Justice Oliver Wendell Holmes warned the same in a contemporaneous copyright case: “[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.”¹⁰² Professor McKenna suggests that courts once treated ornamentality as a meaningful concept distinct from non-functionality,¹⁰³ but the cases he invokes do not support this point. In one case the court pointed out that there are articles so clearly functional that their design could not ever be considered ornamental.¹⁰⁴ Other cases exemplify how the ornamentality rubric, when detached from non-functionality, becomes empty and useless.¹⁰⁵ Furthermore, if ornamentality meant simply having a visual effect on an observer,¹⁰⁶ then it is a low threshold and overlaps with the originality requirement. It is also reminiscent of the matter of concern doctrine, which equates ornamentality with mere visibility.¹⁰⁷ Professor McKenna does not explain why

101. See *Identity Crisis*, *supra* note 1, at 30–31.

102. *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 251 (1903).

103. See McKenna, *supra* note 45, at 198–99.

104. See *id.* at 198 n.17 and accompanying text. At footnote 17, Professor McKenna cites *Theodore W. Foster & Bro. Co. v. Tilden-Thurber Co.*, 200 F. 54, 56 (1st Cir. 1912), where the court says, after giving a list of examples for such type of articles, that “[t]he shape or configuration of such articles can have value only in so far as it may make them more *useful*.” *Id.* (emphasis added).

105. See McKenna, *supra* note 45, at 199 nn. 18–19 and accompanying text. The question of whether the appearance of the article drove its sales was quickly abandoned by courts, and it is unclear that it was ever a good or feasible distinction or how it brought meaning to the ornamental rubric. And requiring that designs be “not ugly” is both an extremely low bar and the sort of art assessment that judges did not feel comfortable making, as we explain above.

106. See McKenna, *supra* note 45, at 198–99 nn. 17–19 and accompanying text.

107. See *In re Stevens*, 173 F.2d 1015, 1016 (CCPA 1949) (noting that “that articles which are concealed or obscure in normal use are not proper subjects for design patents, since their appearance cannot be a matter of concern”); *Bradley v. Eccles*, 126 F. 945, 949 (2d Cir. 1903) (invalidating the coupling washer because it “is not intended for display, but for an obscure use”); Jason J. Du Mont & Mark D. Janis, *Functionality in Design Protection Systems*, 19 J. INTELL. PROP. L. 261, 269–71 (2012) (tracing the history of the doctrine and noting that “several

acknowledging that ornamentality and functionality need not be opposites adds much to the clarification or interpretation of design patent law. Nor does he address the legislative intent behind the addition of the ornamentality requirement, which aimed at drawing a fundamental line between utility patent protection and design patent eligibility.¹⁰⁸

In our view, it continues to make sense to view ornamentality principally as a channeling doctrine that excludes functionality and maintains utility patent supremacy. That was Commissioner Allen’s intention in advocating what became the 1902 Act.

Surprisingly, Professor McKenna argues that the “ornamentality” and “functionality” inquiries are comparably subjective as a central pillar of his critique.¹⁰⁹ While we believe that the courts can better elucidate some functionality questions, we do not find Professor McKenna’s argument persuasive. Sometimes at the margins functionality questions can be context-dependent or a matter of intellectual property policy, but functionality is hardly as subjective as ornamentality. Functionality principally relates to mechanical engineering, whereas ornamentality relates to aesthetics. It is comparatively easy to recognize functionality, as is also evident in the anecdotal cases Professor McKenna presents.¹¹⁰ On the contrary, recognizing ornamentality (in the sense of beauty or art, and not in the sense of non-functionality) is a subjective task which makes it incoherent and difficult to apply, as reflected in judges’ disinclination to assess artistic expression or aesthetics.¹¹¹ The focus on functionality aligns with the 1902 Act. Courts can and should develop a clearer interpretation of functionality, but the perfect ought not be the enemy of the good¹¹² and the utility patent supremacy principle illuminates the path.

decades of effort to wrest legal standards from the ornamentality rubric has yielded little progress. Construed as a referendum on visual aesthetics, ornamentality fails because it is too subjective.”).

108. See *Identity Crisis*, *supra* note 1, at Part III.

109. See McKenna, *supra* note 45, at 199–206.

110. See *id.*

111. In this regard, the Supreme Court’s recent decision in *Google LLC v. Oracle America, Inc.*, 141 S. Ct. 1183 (2021), illustrates the difference. Although it might have been better for the Court to have held categorically that interface declarations are ineligible for copyright protection, the Court emphasizes a wide range of evidence bearing on the functionality of the Java declarations in ruling that Google’s copying of the declarations constituted fair use. See Peter S. Menell, Google v. Oracle and the Grateful (API) Dead: What a Long Strange Trip It’s Been, 127 S.F. DAILY JOURNAL No 69, at 1 (Apr. 21, 2021).

112. Scholars have long recognized the difficulty of providing a “perfect” definition of functionality, but that is not a persuasive reason to abandon the effort. Drawing on the lessons of copyright and trade dress jurisprudence, we identify numerous tools and approaches for promoting coherence. Somewhat like Judge Learned Hand’s seminal observation about the

As we discussed above,¹¹³ the European Union regime has a similar approach. As directed in Recital 10 of the European Union Community Design Regulation, “[t]echnological innovation should not be hampered by granting design protection to features dictated solely by a technical function. It is understood that this does not entail that a design must have an aesthetic quality.”¹¹⁴

Much of Professor McKenna’s response discusses a few flawed copyright and trade dress cases to imply that our endorsement of the utility patent supremacy channeling principle jurisprudence¹¹⁵ will founder. Professor

idea expression dichotomy, “[n]obody has ever been able to fix that boundary, and nobody ever can.” *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930).

113. See *supra* text accompanying notes 61–67.

114. Council Regulation (EC) No 6/2002 of 12 December 2001 on Community Designs (OJ 2002 L 3, p. 1), Recital 10.

115. See *Google LLC v. Oracle America, Inc.*, 141 S. Ct. 1183, 1201, 1202 (2021) (finding that Google’s copying of the Java API declarations was fair use significantly because they are “inextricably bound together with a general system, the division of computing tasks,” “idea of organizing tasks into what we have called cabinets, drawers, and files,” and “the use of specific commands known to programmers”); observing that “the declaring code is, if copyrightable at all, further than are most computer programs (such as the implementing code) from the core of copyright”); *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”); *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”); *Lotus Development Corp. v. Borland Int’l, Inc.*, 49 F. 3d 807, 815–19 (1st Cir. 1995) (holding a menu command hierarchy is an uncopyrightable method of operation), *aff’d by an equally divided court*, 516 U.S. 233 (1996); *Comput. Assocs. Int’l v. Altai, Inc.*, 982 F.2d 693, 709–10 (2d Cir. 1992) (holding that copyright protection did not extend to “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”); *Sega Enters. v. Accolade, Inc.*, 977 F.2d 1510, 1522 (9th Cir. 1993) (ruling that the “functional requirements for compatibility with the Genesis [video game console are] aspects of Sega’s programs that are not protected by copyright” (citing 17 U.S.C. § 102(b))); *Baker v. Selden*, 101 U.S. 99, 102 (1879) (“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 [utility] patent, not of copyright. The claim to an invention or discovery of an art or manufacture must be subjected to the examination of the [utility division of the] Patent Office before an exclusive right therein can be obtained; and it can only be secured by a patent from the government.”).

McKenna overlooks the most authoritative cases¹¹⁶ and our criticism of copyright and trade dress cases that diverge from that principle. Just to be clear, we do not endorse the Supreme Court's *Star Athletica* decision¹¹⁷ and are not suggesting that design patent law follow its confusing analysis. That decision also offers little if any purchase on three-dimensional designs. Importantly though, Professor McKenna agrees with our critique of the alternative design test.¹¹⁸

Professor McKenna devotes the remainder of his response to arguing for a lower threshold for design patent eligibility than that reflected in the copyright and trade dress regimes as a gap filler. The key difference between our views is that Professor McKenna thinks that design patent law, in contrast to copyright law and trade dress law, fills a product configuration gap.¹¹⁹ But Professor McKenna is not dealing with the actual law, but a post hoc rationalization for design patent law.¹²⁰

As our article explains, the 1842 Act was originally modeled after copyright law, not utility patent law. It was meant to fill a gap in copyright protection at that point in history with a copyright-type design protection regime. Although copyright and trademark law later expanded to cover design, Congress never amended design patent law to encompass functionality. To the contrary, the 1902 Act is where Congress last confronted functionality in the context of the design patent regime. Regional appellate courts interpreted the 1902 Act faithfully to exclude functionality for 80 years. Congress has thus far declined efforts to expand such protection. The fact that design patent, copyright, and

116. *See id.*

117. 137 S. Ct. 1002 (2017).

118. *See* McKenna, *supra* note 45, at 206–10.

119. *See* McKenna, *supra* note 45, at 209 (asserting that “it’s notable that configuration has always been design patent subject matter, and the drafters of the original design patent statute believed that form of protection filled a gap precisely because configuration was *not* copyright or trademark subject matter”); *id.* at 210 (“Design patent law was created to fill a perceived gap—to offer protection for designs that were not protected by utility patent, copyright, or trademark law.”).

120. *See* Peter S. Menell & Daniel Yablon, *Star Athletica’s Fissure in the Intellectual Property Functionality Landscape*, 166 U. PA. L. REV. ONLINE 155, 158–61(2017) (explaining that Professor McKenna mistakenly argued that “the union of form and function can readily be protected through the law of design patent, as Congress intended” and citing Brief Amicus Curiae on Behalf of Intellectual Property Professors in Support of Petitioner at 4–6, *Star Athletica, LLC v. Varsity Brands, Inc.*, 137 S. Ct. 1005 (2017) (No. 15-866), 2016 WL 8118845, at 15 (citing Mark P. McKenna & Katherine J. Strandburg, *Progress and Competition in Design*, 17 STAN. TECH. L. REV. 1, 48–51 (2013) (emphasis added)). Note that Professors McKenna and Strandburg do not claim in their article that design patent protection as currently interpreted covers functional features. Rather they advocate that such protection would promote “integration of form and function.” McKenna & Standburg, *id.* at 48–51.

trade dress overlap does not justify courts affording design patent protection for functional designs in direct conflict with the 1902 Act and the utility patent supremacy principle. Rather, the Federal Circuit should apply the channeling principle, as regional circuit courts and the Supreme Court have done when creators have sought to protect functionality through copyright or trade dress law. Implementing such guardrails in the design patent regime is essential to restoring coherence and balance to the intellectual property system.

Professor McKenna offers two policy justifications for a permissive design patent functionality doctrine. First is that “the availability of design patents, with their limited duration and narrow scope, partly justifies limitations on trade dress protection for product designs,” citing the Supreme Court’s *Samara* decision.¹²¹ The reference to *Samara* is hardly support for this proposition. The pertinent passage from *Samara* explains:

It is true, of course, that the person seeking to exclude new entrants would have to establish the nonfunctionality of the design feature . . . Competition is deterred, however, not merely by successful suit but by the plausible threat of successful suit, and given the unlikelihood of inherently source-identifying design, the game of allowing suit based upon alleged inherent distinctiveness seems to us not worth the candle. That is especially so since the producer can ordinarily obtain protection for a design that is inherently source identifying (if any such exists), but that does not yet have secondary meaning, by securing a design patent or a copyright for the design—as, indeed, respondent did for certain elements of the designs in this case. . . .¹²²

The Supreme Court’s reference to the availability of *copyright* protection for nonfunctional designs contradicts Professor McKenna’s point; the *Samara* court did not suggest that copyright—or design patents—protect functional features, and as for limited duration, life of the designer plus 70 years is not very limited.

Professor McKenna’s second justification for a more permissive design patent functionality doctrine is that “modern designers often affirmatively seek to integrate form and function, and aggressively disqualifying features that play any role in the function of an article would eliminate design patent protection for all such designs.”¹²³ It is not surprising that designers advocate for broad protection for their works, just as other creators and inventors have advocated

121. See McKenna, *supra* note 45, at 210 n. 72 (“[*Wal-Mart Stores, Inc. v. Samara Bros., Inc.*] not[es] that the availability of design patent protection for product designs ameliorates any unfairness in refusing protection for any designs that lack secondary meaning[.]”).

122. *Wal-Mart Stores, Inc. v. Samara Bros., Inc.*, 529 U.S. 205, 214 (2000).

123. McKenna, *supra* note 45, at 209.

for longer and broader protection for their works. Designers' arguments have repeatedly been brought to Congress's attention, as have the contentions of consumers, competing manufacturers, and insurers opposing expanding design protections.¹²⁴

Professor McKenna suggests our view is an extreme position, tantamount to rejecting design protection for "configuration (save, perhaps, busts and statues)."¹²⁵ As reflected in Figure 6, there are many product configurations beyond busts and statues for which the ornamental features are separable from the functional elements.¹²⁶

124. See Steven Wilf, *The Making of the Post-War Paradigm in American Intellectual Property Law*, 31 COLUM. J.L. & ARTS 139, 184–90 (2008) (chronicling the failed efforts to expand design protection through legislation and private cartels during the early to mid-twentieth century); Goldenberg, *supra* note 48 (cataloging dozens of failed design protection bills dating the beginning of the 20th century).

125. See McKenna, *supra* note 45, at 210.

126. See, e.g., House of Antique Hardware, Decorative Door Knobs, <https://www.houseofantiquehardware.com/decorative-metal-door-knobs> (last visited Nov. 14, 2021); Metal Mosaic Outdoor Furniture, https://www.lakeside.com/atalog/productDetailPage.jsp?productId=prod4080102&_requestid=8289086 (last visited Nov. 14, 2021).

Figure 6: Ornamental, Nonfunctional Chair Design



And there are numerous sculptures that are not functional, even though they have functional components.¹²⁷ Furthermore, and critically, utility patent law is available to protect aspects of articles of manufacture that combine form and function in novel and non-obvious ways. If a designer cannot meet those requirements for inseparable features, then the designer must face free market

127. *See, e.g.*, Alexander Calder, *Mobile* (1932), <https://www.tate.org.uk/art/artworks/calder-mobile-l01686> (last visited Nov. 14, 2021); Jean Tinguely, *La Tour* (Bern Zytglogge) (1960), <https://aestheticmagazine.com/jean-tinguely-hauser-wirth-frieze-masters-london-2/> (last visited Nov. 14, 2021).

competition. First-mover advantage and reputation can provide an edge, but the designer cannot leverage design patent protection to bar competition for separable or inseparable functional elements. As our article reveals, it was the creation of the Federal Circuit, with exclusive appellate jurisdiction over patents, that vastly expanded design patent protection into the realm of functionality, not legislative change nor a sudden interpretive realization at the Federal Circuit or the Supreme Court. While Professor McKenna acknowledges the utility patent supremacy principle, his suggestions operate in the opposite direction and effectively nudge design patent law over the functionality line.

The proper approach is to interpret intellectual property laws faithfully—i.e., to exclude protection for functional features outside of the utility patent regime. Neither design patent law, trade dress law, nor copyright law protect functional elements of designs. The fact that they have different durations does not alter the essential utility patent supremacy principle needed for a coherent intellectual property system. Until Congress takes up design protection reform, courts should apply the law as written. The Federal Circuit’s lack of appreciation for the statutory basis for design patent protection and the rich regional circuit jurisprudence ought to be corrected, not condoned.

Professor McKenna’s implication at the end of his commentary that it is copyright protection, and not design patent protection, that is the real overprotection culprit in the design field does not bear scrutiny and undermines his central line of argument against aligning design patent functionality doctrine with copyright’s useful article doctrine. First, the *Compendium of U.S. Copyright Practices*,¹²⁸ in contrast to the *Manual of Patent Examining Procedure*,¹²⁹ implements limiting doctrines in relatively clear and concise terms. As regards originality, the *Compendium* states that copyright law does not protect “words and short phrases,”¹³⁰ “familiar symbols and designs,”¹³¹ “mere variations of coloring,”¹³² spatial format and layout design,¹³³ blank forms,¹³⁴ and common geometric shapes, “either in two-dimensional or

128. See U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT PRACTICES (Jan. 2021), <https://www.copyright.gov/comp3/> (hereinafter “COMPENDIUM”).

129. See U.S. PATENT AND TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE (June 2020), <https://www.uspto.gov/web/offices/pac/mpep/index.html>.

130. See COMPENDIUM, *supra* note 128, at § 313.4(C).

131. *Id.* at § 313.4(J).

132. *Id.* at § 313.4(K).

133. *Id.* at § 906.5.

134. *Id.* at § 906.6.

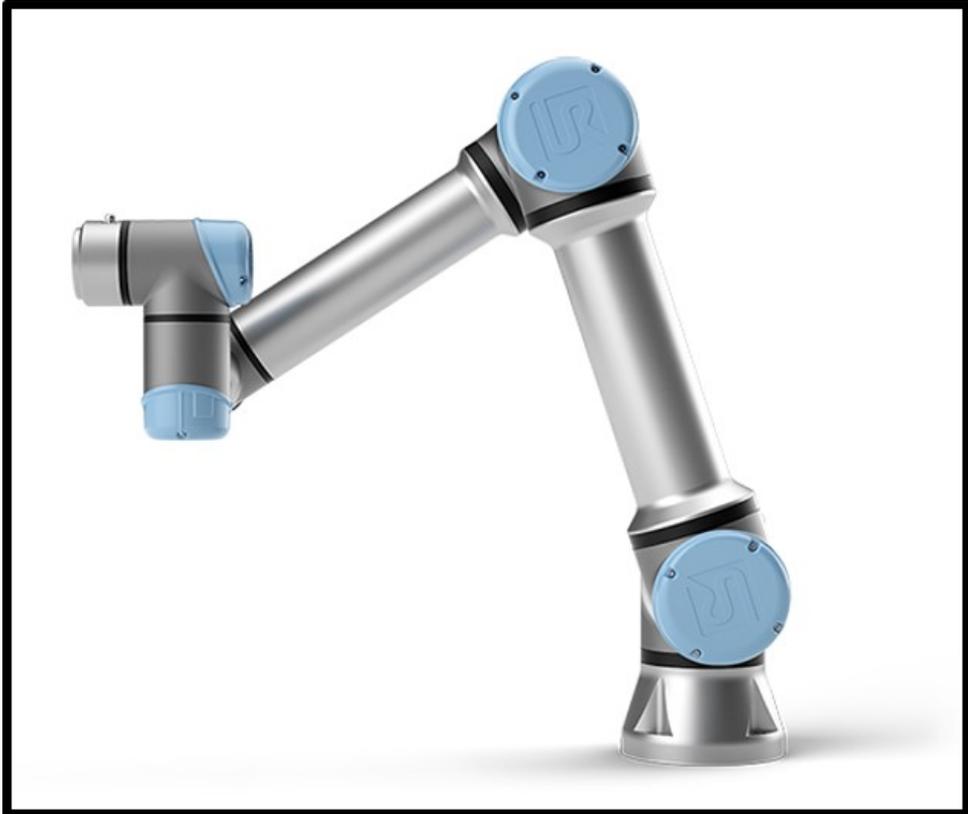
three-dimensional form.”¹³⁵ As Figures 4 and 5 illustrate, the Patent Office applies no such limitations, notwithstanding that the design patent statute specifically requires that articles of manufacture be original to obtain design patent protection. Furthermore, the *Compendium* also sets forth guidelines for assessing separability.¹³⁶

Second, the Patent Office has shown far greater propensity to protect functionality through design patent grants than has the Copyright Office through its registration system. Recent examples illustrate this point. In 2015, Universal Robots (UR) sought to register its “UR5” robot arm as a sculptural work.

135. *Id.* at § 906.1 (noting that “[t]here are numerous common geometric shapes, including, without limitation, straight or curved lines, circles, ovals, spheres, triangles, cones, squares, cubes, rectangles, diamonds, trapezoids, parallelograms, pentagons, hexagons, heptagons, octagons, and decagons”).

136. *Id.* at §§ 924–25.

Figure 7: Universal Robot “UR5” Robot Arm



The Copyright Office refused registration on the ground that UR5 “is a ‘useful article’ which does not contain any separable authorship.”¹³⁷ Universal Robots appealed the decision to the Copyright Office in April 2016, arguing that the UR5 contains conceptually separable artistic elements that are not necessary to its performance of its utilitarian function, namely its “raised circular caps containing the stylized ‘UR’ design,” and the “‘T’ shaped, modular interlocking wrist.”¹³⁸ The Copyright Office affirmed its rejection, explaining that the UR5 “does not contain any separable, copyrightable features” because “the caps and wrist of the arm are both integrated parts of

137. See Letter from Larisa Pastuchiv, Registration Specialist, to Cynthia Walden (Jan. 5, 2016), quoted in Catherine Rowland, Copyright Office Review Board, Re: Second Request for Reconsideration for Refusal to Register UR5; Correspondence ID: 1-1SJKBAB; SR # 1-2982365095 (Oct. 23, 2017) at 2, <https://www.copyright.gov/rulings-filings/review-board/docs/ur5.pdf>.

138. See *id.*

the ‘overall shape’ of the arm.”¹³⁹ In September 2016, Universal Robots filed a second appeal for reconsideration, in which it contended that since the blue caps are “capable of being physically removed from the robotic arm without altering the useful aspects of the article” and “are not necessary to the utilitarian functioning of the device,” they are “conceptually separable, artistic and protectable.”¹⁴⁰ Universal Robots also asserted that the T-shaped piece was “designed to achieve a sleek, modern and aesthetically pleasing appearance,” is “not necessary to the utilitarian function of the article,” and could have been designed in many other ways, rendering this part protectable as well. Universal Robots claimed that these elements of the Work “embody more than the mere ‘modicum’ of creativity that is required for copyright registration,” highlighting that the designers are Danish and inspired by the Danish Modern movement.¹⁴¹

In rejecting the second appeal, the Copyright Office concluded, based on the Supreme Court’s *Star Athletica* decision, “that the elements Universal Robots identifies as expressive—namely the plastic caps and the T-shaped piece—could be visualized as works of authorship separate and independent from the Work’s utility.”¹⁴² And that “[e]ven if those features could be deemed separable, however, they simply are not sufficiently original to warrant copyright protection.”¹⁴³

Minding a gap that should not exist, Universal Robots filed a design application for the UR5 in January 2020.¹⁴⁴ The Patent Office granted the design patent in April 2021.¹⁴⁵

139. See Letter from Stephanie Mason, Attorney-Advisor, to Cynthia Johnson Walden (Aug. 12, 2016), quoted in *id.* The Copyright Office also noted that the UR logo “does not reflect a sufficient amount of original and creative authorship to support a copyright registration” because it consists only of the stylized letters “U” and “R” centered within a square, and “typographic ornamentation [and] lettering” are not copyrightable. *Id.*

140. See *id.*

141. See *id.*

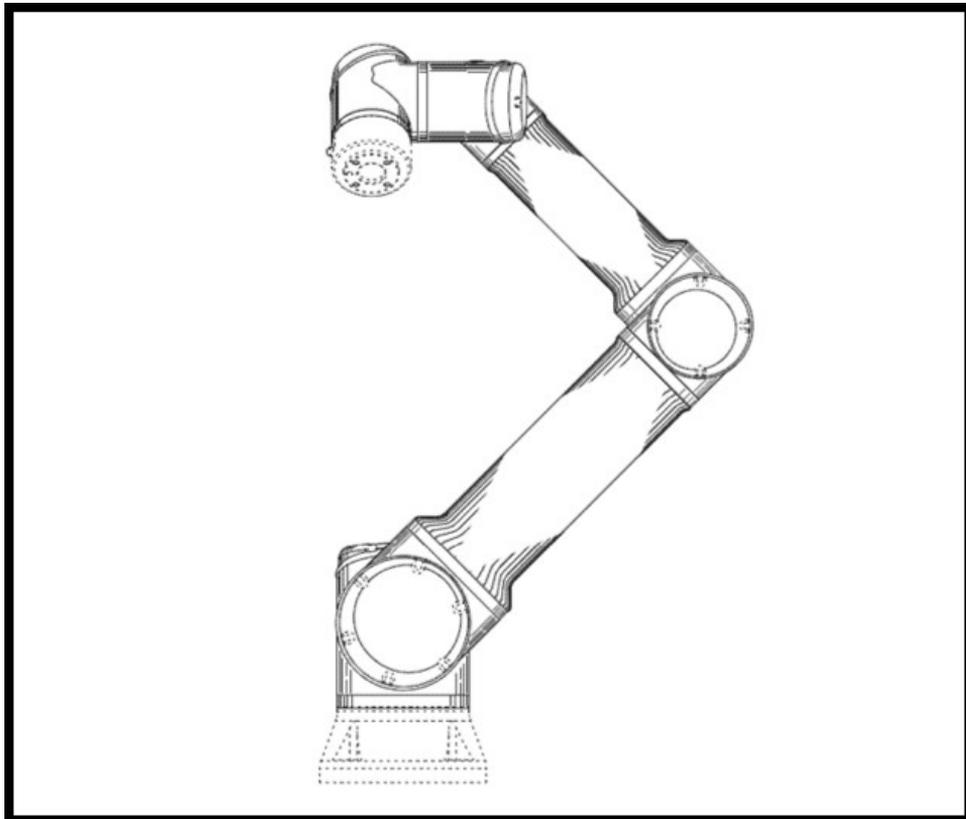
142. *Id.* at 5.

143. *Id.*

144. See U.S. Design Patent No. D915,487 (Apr. 6, 2021).

145. See *id.*

Figure 8: Universal Robot Design Patent



Robotic arms with similar functional configuration have long been the subject of utility patents.¹⁴⁶

This pattern of copyright registration refusal/design patent grant is, unfortunately, a common occurrence. Figure 9 shows six other designs that were refused copyright registration on functionality grounds and granted design patent protection in recent years: an oil filter change device (funnel),¹⁴⁷

146. *See, e.g.*, U.S. Patent No. 4,273,506 (Jun. 16, 1981) (“Industrial Manipulator for Placing Articles in Close Proximity to Adjacent Articles”).

147. *See* Copyright Review Board Decision, Second Request for Reconsideration for Refusal to Register Filter Funnel (SR 1-7786584619) and Plier Pro (SR 1-7648505741); Correspondence ID: 1-3X5PEX1 (May 18, 2021) (affirming refusal to register an orange funnel with a broad, U-shaped body that narrows into a spout; finding that the device’s “shapes, curvatures, lengths, and angles allow it to fit in place around a motorcycle filter and guide fluid into a single point for draining and refilling liquid” and that the device “has straight and curved lines, many of which are symmetrical while others are consistent with the shape of a funnel”), <https://www.copyright.gov/rulings-filings/review-board/docs/filter-funnel-plier-pro.pdf>; U.S. Design Patent D697,539 (Jan. 14, 2014).

a vehicle light,¹⁴⁸ a hub cap/wheel design,¹⁴⁹ a tool storage rack,¹⁵⁰ a shipping box,¹⁵¹ and a pillow.¹⁵²

148. See Second Request for Reconsideration for Refusal to Register D SERIES, SR # 1-7651878481; D SERIES FLUSH MOUNT, SR # 1-7651972429; Correspondence ID: 1-3RESXKF (Oct. 20, 2020) (explaining that the Board “is skeptical that the Works contain separable elements”; noting that “the shape of the lights’ outer casing is useful in that it protects the mirror, bulbs, and wiring. Similarly, the six screws, which ‘attach the faceplate to the body of the lamp,’ . . . serve the useful function of attaching the face to the body and holding the lights together. The Works’ fins also appear to serve the useful purpose of allowing heat to escape from the body to cool the bulbs. Because of the elements’ clear utilitarian functions, the Board is doubtful that they have ‘the capacity to exist apart from the utilitarian aspects’ of the light and stand ‘on [their] own’ ” (quoting *Star Athletica*, 137 S. Ct. at 1010); concluding that the Works do not “possess more than a *de minimis* quantum of creativity”; and further concluding that the Works, viewed as a whole, lack sufficient originality in the “selection, coordination, and arrangement of the elements”), <https://www.copyright.gov/rulings-filings/review-board/docs/d-series.pdf>; U.S. Design Patent 704,364 (May 6, 2014) (“Vehicle Light with Flanges”).

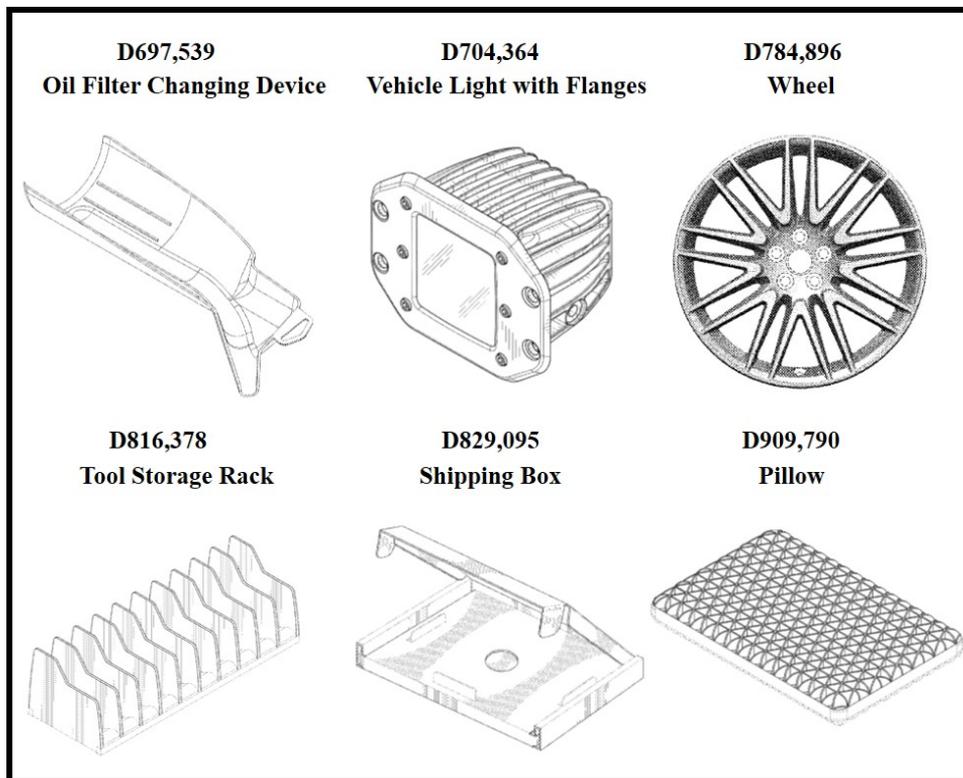
149. See Copyright Review Board Decision, Second Request for Reconsideration for Refusal to Register Vortex; Correspondence ID: 1-JT9UJ9 (Apr. 26, 2016) (affirming refusal to register a hub cap design consisting of a “hub” where the Work can be connected to a vehicle using five bolts, a starburst-like feature that surrounds and connects to the “hub,” and seven “V” shaped spokes that connect from the Work’s outer rim to the starburst design that surrounds the “hub”; noting that the design is “so intertwined with the basic functioning of a standard vehicle wheel cover that it is impossible to imagine a way to physically or conceptually separate these elements from the wheel cover without destroying its basic function”) (citing *Mazer v. Stein*, 347 U.S. 201 (1954)), <https://www.copyright.gov/rulings-filings/review-board/docs/vortex.pdf>; U.S. Design Patent D784,896 (Apr. 25, 2017) (“Wheel”).

150. See Copyright Review Board Decision, Second Request for Reconsideration for Refusal to Register Filter Funnel (SR 1-7786584619) and Plier Pro (SR 1-7648505741); Correspondence ID: 1-3X5PEX1 (May 18, 2021) (affirming refusal to register a device used for sorting, separating, and storing tools; observing that “the curvature, the spacing of elements, the lengths, [and] the angles” “are not merely artistic features” but are “useful features, dictated and constrained by the functional purpose of the article”; and that the device has “has a predictable pattern of identical, evenly spaced and symmetrical panels,” indicating that it does not possess more than a *de minimis* quantum of creativity”), <https://www.copyright.gov/rulings-filings/review-board/docs/filter-funnel-plier-pro.pdf>; U.S. Design Patent D816,378 (May 1, 2018) (“Tool Storage Rack”).

151. See Second Request for Reconsideration for Refusal to Register Box Design I; Correspondence ID: 1-2WE3Z9Z; SR 1-4915853861 (Jan. 8, 2019) (finding that the circle within the box is conceptually separable, but lacking sufficient creativity to meet the originality standard), <https://www.copyright.gov/rulings-filings/review-board/docs/box-design.pdf>; U.S. Design Patent D829,095 (Sept. 25, 2018) (“Shipping Box”).

152. See Second Request for Reconsideration for Refusal to Register Pillow Sculpture, SR # 1-7297601341; Correspondence ID: 1-3L2SVS6 (Jun. 26, 2020) (finding that the overall shape is not protectable and “the interior grid of hollow triangles is also incapable of conceptual separation from the useful article. The triangles have an “intrinsic utilitarian function” and thus are useful articles themselves”; noting that Purple’s marketing materials make “clear that these triangles are wholly utilitarian,” including that the Work’s “hundreds of little triangles . . . give the core of the pillow lateral strength so it retains its oh-so supportive,

Figure 9: Copyright Registration Refused/Design Patent Granted



These minimalist designs raise serious functionality and originality concerns. They reinforce the rubber stamp quality of the Patent Office and place Professor McKenna's conjecture about "minding the gap" in actual context. There should not be a gap when it comes to the utility patent supremacy principle.

As these examples indicate, the design patent system as currently administered results in significant overprotection of functional features and designs. And even though design patents have "only" 15 years of duration,

head-cradling comfort all night" and emphasizing the word 'SCIENCE!' in all capital letters; and "[e]ven if the grid of triangular prisms was not functional, however, it would not be a basis for copyrightability. "The Copyright Act does not protect common geometric shapes" including triangular prisms." (citing COMPENDIUM (THIRD) § 906.1; 37 C.F.R. § 202.1(a)), <https://www.copyright.gov/rulings-filings/review-board/docs/pillow-sculpture.pdf>; U.S. Design Patent 909,790 (Feb. 9, 2021) ("Pillow"). The patentee continues to emphasize the ergonomic advantages of its pillow design. *See* <https://purple.com/pillows> (last visited Nov. 14, 2021) ("Unique to the Purple Harmony Pillow, the Deluxe Hex Grid is specially formulated and engineered for head and neck support. The soft hexagon-shaped air channels optimize the dynamic response and airflow for unbelievable comfort.").

that length of time can be an eternity in some design markets and substantially diminish competition. It is important to note that the utility patent supremacy/channeling principle is about preserving competition in exactly the same way as trademark's functionality doctrine¹⁵³—the channeling of functionality protection exclusively to utility patents is meant to subject all other, not sufficiently innovative, functional features to unimpeded market competition. The suggestion to “mind the gap” is neither a faithful interpretation of intellectual property statutes nor good intellectual property policy. Courts, the Patent and Trademark Office, and the Copyright Office should interpret the intellectual property statutes faithfully and implement the utility patent supremacy principle. As highlighted earlier, both the intertwining of form and function and the hierarchical logic of the intellectual property system are long-standing. Courts should not remake that logic without legislative change.

IV. CONCLUSION

We are grateful to the practitioners and scholars who participated in the BCLT/BTLJ design patent symposium. Although we did not achieve consensus on rectifying the design patent muddle, we confirmed that the Federal Circuit has ignored the 1902 Act's intent, misinterpreted 80 years of regional circuit jurisprudence, and flipped design patent eligibility on its head. The symposium also more fully revealed the role of design patent advocates in and the political economy surrounding the design patent muddle.

It is ironic that design advocates who celebrate the logic of industrial design would fail to recognize the logic and need for coherent design of the intellectual property system itself. As the Supreme Court recognized 140 years ago, “[t]he claim to an invention or discovery of an art of 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.”¹⁵⁴ The Court obviously meant *utility patent* examination and protection. It did not want to see graphical functional designs rubber stamped through the backdoor. The Copyright Office is applying a more stringent threshold for design protectability than the Patent Office.¹⁵⁵ The 1902 Act, which reformed and clarified design protection, codified this basic principle as applied to ornamental designs. As Justice Brennan observed just forty years

153. *Cf.* McKenna, *supra* note 45, at 207 (“Here it’s important to emphasize that the reason courts focus on alternatives in the trademark context is that those courts believe that functionality is fundamentally concerned with competitive necessity to copy and not with channeling protection of useful features to utility patent.”).

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

155. *See supra* notes 136–153.

ago, “[t]he patent laws attempt to reconcile th[e] Nation’s deep-seated antipathy to monopolies with the need to encourage progress.”¹⁵⁶

For more than a century, Congress has steadfastly declined to expand design protection to reach novel functional advances.¹⁵⁷ As our research has demonstrated, the Federal Circuit, perhaps unwittingly, has drastically expanded design patent protection with unfortunate results for competition and legal clarity. Its undermining of the utility patent supremacy principle destabilizes the intellectual property system. The time is ripe for the Federal Circuit or the Supreme Court to implement and reinforce guardrails aimed at restoring the coherence of the intellectual property system. In addition, Congress should examine the design protection muddle and explore ways of harmonizing intellectual property protection.

156. *Diamond v. Chakrabarty*, 447 U.S. 303, 319 (1980) (Brennan, J., dissenting).

157. *See* Wilf, *supra* note 124, at 184–90; Goldenberg, *supra* note 48 (cataloging dozens of failed design protection bills dating the beginning of the 20th century).

