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Visual Invention

Sarah Burstein, University of Oklahoma College of Law



VISUAL INVENTION

by Sarah Burstein*

Recently, there has been a renewed interest in design patents and, in particular, in the issue of nonobviousness. Courts and commentators have long struggled with how the nonobviousness requirement should be applied to designs. This Article argues that the Federal Circuit's current test for design patent nonobviousness is flawed and proposes several changes to that test. The approach proposed here will provide muchneeded clarity in an unusually murky area of law and will also better promote the relevant policy goals.

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^{*} Law clerk to the Hon. Robert W. Pratt, United States District Court for the Southern District of Iowa. B.A. Art & Design with Honors and with Distinction, Iowa State University; J.D. University of Chicago. The author thanks Christopher Buccafusco, Douglas Lichtman, Jake Linford, Jonathan Masur, Richard A. Posner, Lior Strahilevitz, and the participants in the 10th Annual Intellectual Property Scholars Conference for their insightful comments and suggestions on earlier drafts of this Article. The author also thanks Daniel Burstein for his extraordinary and invaluable support.

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I. INTRODUCTION

"That there may be as outstanding aesthetic invention as there is mechanical, only barbarians would deny; but it is as difficult to form an opinion whether it has appeared in a given instance in the one case as in the other."

Design patents are an increasingly popular—and increasingly litigated—type of intellectual property protection.² In order to be patentable, a design must, among other things, satisfy the nonobviousness requirement contained in § 103 of the Patent Act.³ The nonobviousness requirement has been called the "[u]ltimate [c]ondition of [p]atentability" and "the final gatekeeper of the patent system." However, courts have struggled to apply the nonobviousness requirement—and its predecessor requirement of "invention"—to designs. Indeed, Judge Rich characterized the application of the nonobviousness requirement to design patents as an "impossible issue."

¹ Belding Heminway Co. v. Future Fashions, Inc., 143 F.2d 216, 217–18 (2d Cir. 1944) (per curiam).

See Graeme B. Dinwoodie & Mark D. Janis, Trade Dress and Design Law, at xviii (2010) ("[T]here has been a contemporary rejuvenation of interest in design patent protection."); Dennis D. Crouch, A Trademark Justification for Design Patent Rights 7 (Û. Mo. Sch. of L. Legal Studies Research Paper No. 2010-17), available at http://ssrn.com /abstract=1656590 (noting a "dramatic rise in the number of design patents being issued"); see also Mircea Tipescu, IP: Design Patents Garner More Attention, INSIDE COUNSEL (June 8, 2010), http://www.insidecounsel.com/2010/06/08/design-patents-garner-moreattention (noting "a growing emphasis on design patents by both patentees and courts").

See 35 U.S.C. §§ 103(a), 171 (2006).

See NONOBVIOUSNESS—THE ULTIMATE CONDITION OF PATENTABILITY (John F. Witherspoon ed., 1980).

Robert P. Merges, Commercial Success and Patent Standards: Economic Perspectives on Innovation, 76 Calif. L. Rev. 803, 812 (1988).

See, e.g., Rains v. Niaqua, Inc., 406 F.2d 275, 278 (2d. Cir. 1969) ("The entire concept of obviousness is, no doubt, 'an elusive one, especially when applied to elements of design." (quoting Hygienic Specialties Co. v. H.G. Salzman, Înc., 302 F.2d 614, 618 (2d Cir. 1962))).

⁷ In re Nalbandian, 661 F.2d 1214, 1219 (C.C.P.A. 1981) (Rich, J., concurring).

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Despite its importance—and perceived difficulty—this issue has received surprisingly little scholarly attention and no in-depth treatment until very recently. And although the Federal Circuit's approach has been criticized, no prior article has proposed a better method for determining whether a claimed design "would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

This Article aims to fill that gap. Part II of the Article provides an overview of design patent law, including the requirements for design patent protection. Part III examines the development of the nonobviousness requirement and its predecessor requirement of "invention" in the context of designs. Part IV critically evaluates the Federal Circuit's current test and proposes several changes to that test. Specifically, this Article proposes changes to: (1) the definition of the scope and content of § 103 prior art; (2) the application of the primary reference requirement; (3) the rules for determining whether a change to a primary reference would be obvious; and (4) the use of "objective evidence" of nonobviousness. This new approach will allow for greater consistency in the application of § 103 in design patent cases. It will also better serve the policy goals of both the nonobviousness requirement and the design patent system.

⁸ See Jason J. Du Mont, A Non-Obvious Design: Rethinking the Origins of the Design Patent Standard, 45 Gonz. L.R. 531, 535 (2010) ("[A] careful review of the history of the early design patent acts suggests that the application of this requirement to design patents was not foreordained, nor does it remain appropriate today."); Janice M. Mueller & Daniel Harris Brean, Overcoming the "Impossible Issue" of Nonobviousness in Design Patents, 99 Ky. L.J. 419, 517, 532 (2011) (arguing that applying § 103 to designs is "inappropriate" but that courts and the Patent Office should take advantage of "previously unrecognized flexibility in how they apply the nonobviousness requirement to designs"); see also Jason J. Du Mont & Mark D. Janis, The Origins of American Design Protection 49 (Ind. Legal Studies Research Paper No. 1862182, June 10, 2011), available at http://ssrn.com/abstract=1862182 (briefly discussing the application of the nonobviousness requirement to designs and opining that "[a]n argument that the entire exercise [of applying § 103 to designs] is conceptually flawed is consistent with the historical record of design patent's non-patent origins").

⁹ 35 U.S.C. § 103(a). Although Mueller and Brean made a number of proposals styled as "recommendations for applying the nonobviousness requirement" to designs, *see* Mueller & Brean, *supra* note 8, at 517, their proposals do not address the issue of whether a claimed design "would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *See* 35 U.S.C. § 103(a). Instead, they argue that § 103 should be interpreted to allow a patent unless the claimed design "would have appeared substantially the same as the prior art design to an ordinary observer at the time the claimed design was made" and make several proposals that would implement that interpretation. *Id.* at 544, 553.

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II. BACKGROUND—DESIGN PATENTS

Unlike utility patents, which protect "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof," design patents protect the ornamental appearance of an "article of manufacture." Specifically, a design patent may cover: (1) a surface design that is applied to an article of manufacture; (2) the shape or configuration of all or part of an article; or (3) a combination of both. ¹²

A. The Purpose of Design Patents

The purpose of design patents is to promote the decorative arts.¹³ The "decorative arts" are "those arts which are made to serve a practical purpose but are nevertheless prized for the quality of their workmanship and the beauty of their appearance." Traditionally, the decorative arts included furniture, metalwork, ceramics, glassware, and jewelry. The decorative arts differ from the fine arts primarily in the constraints imposed upon the designer's creative expression. As the French art critic P. Rioux de Maillou explained in 1895:

¹⁰ 35 U.S.C. § 101 (2006).

¹¹ See id. § 171; Gorham Co. v. White, 81 U.S. (14 Wall.) 511, 525 (1872).

¹² U.S. DEP'T OF COM., U.S. PTO, MANUAL OF PATENT EXAMINING PROCEDURE § 1504.01 (8th ed., rev. 8, Jul. 2010) [hereinafter MPEP]; see also id. § 1502.01 ("The ornamental appearance for an article includes its shape/configuration or surface ornamentation applied to the article, or both."); In re Cho, 813 F.2d 378, 383 (Fed. Cir. 1987) (Newman, J., dissenting) ("Ornamentation may lie in the shape of the article of manufacture, as well as in an arbitrary decoration upon it.").

Gorham, 81 U.S. at 524. But see In re Laverne, 356 F.2d 1003, 1006 (C.C.P.A. 1966) ("[T]he clear purpose of the design patent law is to promote progress in the 'art' of industrial design").

Harold Osborne, *Preface*, THE OXFORD COMPANION TO THE DECORATIVE ARTS, at v (Harold Osborne ed., reprt. 1985); *see also* ISABELLE FRANK, *A Note on the Selection and Organization of the Writings, in* THE THEORY OF DECORATIVE ART: AN ANTHOLOGY OF EUROPEAN & AMERICAN WRITINGS, 1750–1940, at xi (Isabelle Frank ed., 2000) ("The use of the term decorative arts is a shorthand way of referring to all arts that, under various labels from the eighteenth century on, were excluded from the category of the fine arts (music, poetry, architecture, painting, and sculpture) but were nonetheless seen to possess their own distinctive artistic properties. Thus, although the terminology fluctuates by country and by period, it is clear that labels such as *arts decoratifs*, *Angewandtekunst*, applied arts, *Kunstgewerbe*, and *arts mineurs* were all understood to refer to the same category of objects.").

 $^{^{15}}$ See John Heskett, Industrial Design 55 (1980) (listing these as the "traditional areas of European decorative art").

Design 225 (Meredith Dale et al. trans., 2005) ("The design process is often seen [as] a sort of act of creation. It is certainly a creative process. However, design does not take place in a vacuum, with a completely free choice of colors, shapes and materials.").

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If pure art, left to its own devices within such wide limits, may be likened to a plant or tree, then the decorative arts are like espaliered plants. The term *decorative* implies subordination: the need to remain within a preordained framework, in conformity with the nature and character of the object that is to be *adorned*.

Not only are the decorative arts subject to this logical dependency but, as we have said, they are also applied arts; and this imposes an additional constraint, expressed by the other appellation sometimes bestowed on them, that of *industrial arts*.¹⁷

Design patents promote the decorative arts by providing incentives for manufacturers to improve the appearance of their products by rewarding the "ingenious producer[s] of those appearances." However, design patents have historically been subject to abuse by patent "smugglers" who have sought patent protection for minor technical innovations that exhibit minimal, if any, ornamental conception. ¹⁹

B. Design and "Invention"

Design, like engineering, involves problem-solving.²⁰ While the engineer's problem is, essentially, how to make a product work (or work better), the designer's problem is how to make a product look better.²¹ In

¹⁷ P. Rioux de Maillou, *The Decorative Arts and the Machine, in* THE THEORY OF DECORATIVE ART: AN ANTHOLOGY OF EUROPEAN AND AMERICAN WRITINGS, 1750–1940, at 184 (Isabelle Frank ed., David Britt trans., 2000) (1895). Although, as Rioux de Maillou observed, decorative arts have sometimes been referred to as "industrial arts," it is important to note that the term "decorative arts" is not synonymous with the contemporary concept of "industrial design." The term "industrial design," as currently used, refers to a broad range of design activities, including decoration, engineering, material selection, and ergonomics. *See* DESIGN DICTIONARY: PERSPECTIVES ON DESIGN TERMINOLOGY 212 (Michael Erlhoff & Tim Marshall eds., Laura Bruce & Steven Lindberg trans., 2008). Therefore, the type of "design" covered by design patents—namely, ornamental or aesthetic design—is only one aspect of industrial design.

¹⁸ See Gorham, 81 U.S. (14 Wall.) at 525.

¹⁹ See Gerard N. Magliocca, Ornamental Design and Incremental Innovation, 86 MARQ. L. REV. 845, 854–55, 870, 874–80 (2003) (describing this phenomenon and recounting how liberalized Patent Office policies in the nineteenth century led to "rampant patent smuggling").

²⁰ See DAVID PYE, THE NATURE AND AESTHETICS OF DESIGN 91 (1978) (noting that "design nearly always involves problem-solving").

²¹ See 8 Donald S. Chisum, Chisum on Patents § 23.03[6] (stating that, in the context of designs, the problem is "how to make an article that is more ornamental and attractive to the eye"); In re Glavas, 230 F.2d 447, 451 (C.C.P.A. 1956) (describing the designer's problem as "improving the appearance of a device"). However, a designer need not find a solution that is "successful" in improving the appearance of the article in some measurable, objective sense—i.e., no one other than the designer must think that the new design actually does look better than prior designs. While the subject matter of a utility patent must be "useful," a patentable design need only be "ornamental." Compare 35 U.S.C. § 101, with id. § 171. Arguably, a technical invention is not "useful" unless it is, in some objective sense, more useful than prior inventions. By contrast, the term "ornamental" does not carry any such comparative connotation.

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both cases, finding solutions to the problems presented can be described as "invention." However, while the engineer is engaged in technical invention, the designer's process may be referred to as "visual invention."

Because designers working on configurations for different types of products have different opportunities and constraints,²⁴ the designer's problem is a product-specific one.²⁵ Thus, the relevant problem is not how to make any product look better, but how to make *this* product look better. Accordingly, "visual invention" may be conceptualized as the process of consciously²⁶ trying to make a particular product look better.

Therefore, in order to obtain patent protection, a designer does not need to find a solution that is "correct," but one that is "ornamental."

²² It has been suggested that "the jargon of invention" is not really applicable to designs. *See* Matthew Nimetz, *Design Protection*, 15 COPYRIGHT L. SYMP. (ASCAP) 79, 123 (1967). However, the concept of invention is not foreign to the field of design. Indeed, in the nineteenth century, art critics and commentators often used the term "invention" in the context of design. *See, e.g.*, John Ruskin, *Modern Manufacture and Design, in* The Theory of Decorative Art: An Anthology of European and American Writings, 1750–1940, at 47, 51 (Isabelle Frank ed., 2000) (describing ornamentation as something "invented").

²³ In Schumpeterian terms, the creation of a new product would more properly be referred to as an "innovation," not an "invention." *See generally* PAUL STONEMAN, SOFT INNOVATION: ECONOMICS, PRODUCT AESTHETICS, AND THE CREATIVE INDUSTRIES 2–3 (2010) (discussing Schumpeterian economics in the context of aesthetic innovation).

²⁴ See generally Mueller & Brean, supra note 8, at 440 (noting that different products have different "degree[s] of freedom"—that is, they have different "extent[s] to which a designer can modify the aesthetics of a product without interfering with its proper function").

Although design patents may, in theory, be obtained for surface designs, contemporary designers are unlikely to seek design patent protection for designs that consist solely of applied (or surface) designs. Such designs, if sufficiently original to merit design patent protection, would also be automatically (and costlessly) protected by copyright law. See 17 U.S.C. §§ 101, 102(a)(5) (2006) (providing protection for "pictorial, graphic, and sculptural works," a category that includes "applied art"); see also Int'l Seaway Trading Corp. v. Walgreens Corp., 589 F.3d 1233, 1238 (Fed. Cir. 2009) (suggesting that the originality requirement in 35 U.S.C. § 171 is meant "to incorporate the copyright concept of originality"); Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., Inc., 499 U.S. 340, 345–46 (1991) (describing the low standard for originality in copyright). Therefore, it is difficult to imagine a situation in which a rational designer would incur the cost of obtaining a design patent for a design directed solely to surface ornamentation. Thus, while it may be true that "if the problem is merely one of giving an attractive appearance to a surface, it is immaterial whether the surface in question is that of wall paper, an oven door, or a piece of crockery," see In re Glavas, 230 F.2d at 450, that is not really a relevant "problem" in contemporary design patent cases.

While utility patents protect things that are both "invented" and "discovered," design patents only protect designs that are "invented." *Compare* 35 U.S.C. § 101, *with id.* § 171. This implies that, to be patentable, a design must be consciously created. *Cf.* MPEP, *supra* note 12, at § 1504.01(c) ("It is clear that the ornamentality of the article must be the result of a conscious act by the inventor, as 35 U.S.C. [§] 171 requires that a patent for a design be given only to 'whoever *invents* any new, original, and ornamental design for an article of manufacture.").

Visual invention varies in important ways from technical or scientific invention. For example, despite the constraints imposed by the requirements of any specific product, the designer's problem is still a fairly open-ended one, with many possible—and few obvious—solutions.²⁷ Therefore, the standards that have been developed to determine nonobviousness in technical inventions are not necessarily relevant—or even helpful—in the context of visual invention.²⁸

C. Requirements for Design Patent Protection

In order to be patentable, a design must be "new, original and ornamental." It must also satisfy the statutory requirements that are applicable to utility patents, 30 including the related requirements of novelty and nonobviousness. 31

Section 102 of the Patent Act requires that all patentable inventions be novel. ³² In order to be novel, a design cannot be "substantially the same" as a prior design, when viewed by "an ordinary observer, giving such attention as a purchaser usually gives." ³³ If the appearance of the new design "is such as to deceive such an observer, inducing him to purchase [the new design] supposing it to be the other," then the design is not novel. ³⁴

²⁷ Gordon Russell, *Good Design Is Not a Luxury*, DESIGN, Vol. 1, No. 1 (1949), reprinted in IN GOOD SHAPE: STYLE IN INDUSTRIAL PRODUCTS 1900 TO 1960, at 73, 74 (Stephen Bayley ed., 1979) ("To any design problem there are many possible solutions; there is no one perfect solution, and sometimes, as in the design of a flower vase, there are hundreds or even thousands of shapes which would do the job."); see also 8 CHISUM, supra note 21, at § 23.03[6] (stating that the designer's problem is "more open-ended" than that of a technical inventor); PYE, supra note 20, at 70 ("[A]]ll designs for use are arbitrary.").

Additionally, it is by no means clear that all of the judicial glosses that have been applied to § 103 and its predecessor requirement of "invention" in the context of utility patents need to—or should—be applied to design patents. For example, in the utility patent context, nonobviousness has been conceptualized as a measure of "the *technical accomplishment* reflected in an invention." Merges, *supra* note 5, at 812. Therefore, some commentators have reasoned that, in the design context, nonobviousness must measure artistic accomplishment or aesthetic success. *See, e.g.*, Mueller & Brean, *supra* note 8, at 425. There are a number of reasons to question this conceptualization of design patent nonobviousness; however, a full discussion of these issues is beyond the scope of this Article.

²⁹ 35 U.S.C. § 171 (2006).

³⁰ *Id*.

³¹ See id. §§ 102, 103(a).

³² Id. § 102.

 $^{^{\}rm 33}$ Int'l Seaway Trading Corp. v. Walgreens Corp., 589 F.3d 1233, 1239 (Fed. Cir. 2009) (quoting Gorham v. White, 81 U.S. (14 Wall.) 511, 528 (1872)).

³⁴ *Id.* (quoting *Gorham*, 81 U.S. (14 Wall.) at 528). In this analysis, the ordinary observer is "deemed to view the differences between the patented design and the accused product in the context of the prior art." *Id.* (quoting Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 676 (Fed. Cir. 2008) (en banc)).

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Section 103 of the Patent Act requires that a patentable invention go beyond mere novelty; specifically, it provides that:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The nonobviousness requirement is "based on the constitutional command that patents be used to 'promote the Progress of... useful Arts.'"³⁶ The Supreme Court has indicated that the nonobviousness requirement is a "means of weeding out those inventions which would not be disclosed or devised but for the inducement of a patent."³⁷

III. THE DEVELOPMENT OF THE CURRENT TEST

A. Background—From "Invention" to "Nonobviousness"

There was no statutory requirement of nonobviousness for the first 110 years of United States design patent protection. Nonetheless, courts have long required that patentable designs demonstrate something more than mere novelty. This additional requirement, sometimes referred to as "invention" or "inventive genius," was inconsistently described and applied. However, cases decided under the "invention" standard have influenced current thinking about the concept of nonobviousness. Therefore, in order to provide some context, this Part will briefly review

³⁵ U.S.C. § 103(a).

 $^{^{36}}$ Roanwell Corp. v. Plantronics, Inc., 429 U.S. 1004, 1006 (1976) (White, J., dissenting from the denial of certiorari) (alteration in original) (quoting U.S. CONST. art. I, § 8, cl. 8).

³⁷ Graham v. John Deere Co., 383 U.S. 1, 11 (1966).

The first United States design patent statute was enacted in 1842. See Act of Aug. 29, 1842, ch. 263, § 3, 5 Stat. 543, 543–44 (1842). The nonobviousness requirement was not added until 1952. Patent Act of 1952, ch. 950, § 103, 66 Stat. 792, 798 (1952). Notably, however, the early design patent acts did require that a design be the product of the patentee's "genius." See, e.g., Wooster v. Crane, 2 F. Cas. 583 (C.C.S.D.N.Y. 1865) (No. 18,036), reprinted in The LAW OF DESIGN PATENTS 16 (William Edgar Simonds ed., 1874) (applying Act of Mar. 2, 1861, ch. 88, § 11, 12 Stat. 246, 248 (1861)); see also Act of July 8, 1870, ch. 230, § 71, 16 Stat. 198, 210 (1870) (also including "genius" requirement); 60 U.S. REV. STAT. § 4929 (1874) (same).

³⁹ See, e.g., Rowe v. Blodgett & Clapp Co., 103 F. 873, 874 (C.C.D. Conn. 1901).

⁴⁰ See WILLIAM LEONARD SYMONS, THE LAW OF PATENTS FOR DESIGNS 41 (1914) ("What constitutes invention [in designs] is always a question of considerable difficulty."); see also WILLIAM EDGAR SIMONDS, Preface, in THE LAW OF DESIGN PATENTS (1874) ("The decisions in the Patent Office [regarding design patents generally] have been conflicting, and the court cases are not altogether harmonious.").

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the history of the "invention" standard and the transition to the current standard of "nonobviousness."

1. "Invention"

The "invention" requirement is generally traced back to the Supreme Court's opinion in Hotchkiss v. Greenwood. In Hotchkiss, the Court concluded that using clay in an old method of door-knob construction was not sufficient to obtain a utility patent because the substitution—even though technically novel—was "destitute of ingenuity or invention."42 The Court stated that:

[U]nless more ingenuity and skill in applying the old method of fastening the shank and the knob were required in the application of it to the clay or porcelain knob than were possessed by an ordinary mechanic acquainted with the business, there was an absence of that degree of skill and ingenuity which constitute essential elements of every invention. In other words, the improvement is the work of the skilful mechanic, not that of the inventor.

Even though Hotchkiss did not involve a design patent, its distinction between "inventors" and ordinary "mechanics" would be quite influential in future patent cases—including design patent cases.⁴

In the years following Hotchkiss, the requirement of "invention" was applied to design patents as well as utility patents. 45 In 1893, the Supreme Court stated in its opinion in Smith v. Whitman Saddle Co. that "[t]he exercise of the inventive or originative faculty is required" to create a patentable design. 46 By the twentieth century, most courts recognized an "invention" requirement for patentable designs. 47 However, courts and commentators struggled to articulate a test for the requisite "invention." ⁴⁸

⁴¹ 52 U.S. 248 (1850). See Graham, 383 U.S. at 11 ("The language in [Hotchkiss], and in those which followed, gave birth to 'invention' as a word of legal art signifying patentable inventions."). But see Edmund W. Kitch, Graham v. John Deere Co.: New Standards for Patents, 1966 SUP. CT. REV. 293, 309 (1966) (arguing that "an examination of [the Hotchkiss] opinion reveals that despite all the significance that has been attributed to it, it merely reaffirmed the law as it then existed, adding only a minor wrinkle that in context liberalized the standard of invention still further").

⁴² Hotchkiss, 52 U.S. at 266.

⁴³ *Id.* at 267.

⁴⁴ See, e.g., In re Laverne, 356 F.2d 1003, 1006 (C.C.P.A. 1966) ("In the mechanical, chemical, and electrical 'arts' we have distinguished, since Hotchkiss v. Greenwood, ... between the craftsman or routineer on the one hand and the innovator on the other, now, by statute, the innovator who makes unobvious innovations." (citation omitted)).

⁴⁵ See, e.g., Collender v. Griffith, 6 F. Cas. 104, 105 (C.C.S.D.N.Y. 1873) (No. 3,000); Goodyear Dental Vulcanite Co. v. Smith, 10 F. Cas. 743, 743, 748–49 (C.C.D. Mass. 1874) (No. 5,598).

¹⁴⁸ U.S. 674, 679 (1893).

⁴⁷ See, e.g., In re Lobl, 75 F.2d 219, 220 (C.C.P.A. 1935) ("It is elementary that there must be invention to justify the grant of a design patent."). But see Nat Lewis Purses, Inc. v. Carole Bags, Inc., 83 F.2d 475, 476 (2d Cir. 1936) (noting "some vacillation" in the case law about the requirement of invention and observing that

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Some courts tried to define "invention" by setting baseline requirements. For example, one court stated that the design "must rise above the commonplace" and there "must be more than mere mechanical skill." Some courts considered evidence of a design's commercial success to be probative—and, in some cases, conclusive—evidence of invention. Other courts, by contrast, refused to consider evidence of commercial success as an indicator of inventiveness, or at least not as a dispositive one. Perhaps due to the difficulties courts and commentators had in articulating a test for invention, a remarkable number of cases decided during this period contain little or no substantive analysis, simply deeming a given design to be inventive (or not inventive) without saying much—or anything—more. ⁵²

Despite these difficulties, some general patterns and themes can be observed in the cases decided under the "invention" standard. For example, courts often concluded that there was no invention where the patentee only changed the color, the material, or the size of an existing design. ⁵³ Similarly, design patents were repeatedly found invalid where the applicant merely changed the frequency in an existing pattern. ⁵⁴ A number of courts concluded that there was no invention when the differences between the claimed design and the prior art were made for

[&]quot;[s]ome opinions appear to imply that if a design be new and pleasing enough to catch the trade, nothing more is required").

See, e.g., SYMONS, supra note 40, at 43.

 $^{^{\}tiny 49}~$ E.g., Krem-Ko Co. v. R.G. Miller & Sons, Inc., 68 F.2d 872, 873 (2d Cir. 1934).

 $^{^{50}}$ $\it E.g.,$ Glen Raven Knitting Mills, Inc. v. Sanson Hosiery Mills, Inc., 189 F.2d 845, 853 (4th Cir. 1951).

⁵¹ E.g., Phoenix Knitting Works v. Rich, 194 F. 708, 716 (C.C.N.D. Ohio 1911) (refusing to give any weight to evidence of commercial success where the court found that the brisk sales were the result of "very shrewd and extensive advertising"); Payne Metal Enters., Ltd. v. McPhee, 382 F.2d 541, 546 n.7 (9th Cir. 1967) ("Commercial success tends to show that the design was new, original and ornamental But it does not tend to show that the design was nonobvious").

⁵² See, e.g., In re Person, 70 F.2d 841, 842 (C.C.P.A. 1934).

⁵³ See, e.g., In re Mains, 77 F.2d 533 (C.C.P.A. 1935) (affirming denial of a design patent for a horse-collar pad for lack of invention where the applicant conceded that "the only novelty in his design results from coloring the hooks of the pad red"); In re Campbell, 104 F.2d 394 (C.C.P.A. 1939) (affirming the denial of a design patent for "a metal capsule to contain compressed gases" on the basis of lack of invention in light of prior, similarly shaped glass bottles); Nat Lewis Purses, Inc. v. Carole Bags, Inc., 83 F.2d 475 (2d Cir. 1936) (affirming the denial of an injunction and concluding a design patent for a purse was invalid where "no more was really involved than changing the size" of a prior design); see also Symons, supra note 40, at 56 (stating that a "change in color, material or size [is] not invention").

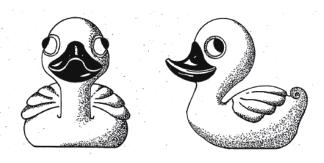
⁵⁴ E.g., In re Barber, 62 F.2d 364, 364 (C.C.P.A. 1932) (affirming the denial of a design patent for a "design for a flash-light tube" where "the only appreciable difference between [the claimed] design and that of [the primary] reference is that, in the reference, there are but three corrugations in each longitudinal stripe, and the intervening smooth portions are comparatively wider," and there was also "a greater number of such stripes in [the primary] reference").

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functional—not aesthetic—reasons.⁵⁵ In a related vein, courts often found designs invalid for lack of invention when the designs at issue were barely, if at all, ornamental,⁵⁶ even when they did not expressly consider the requirement of ornamentality.⁵⁷

But not all cases followed these patterns and themes. A large number of decisions seemed to turn upon the subjective impressions of the judges—specifically, upon whether or not the judge perceived the differences between the claimed design and the prior art to be "slight" or "significant." Therefore, the result of any given validity determination was difficult to predict because it was difficult to know *ex ante* whether a judge would deem a certain visual difference to be slight or significant. For example, in *Knickerbocker Plastic v. Allied Molding*, the Second Circuit considered the validity of a design patent for a plastic duck toy, as shown below ⁵⁹:



⁵⁵ See, e.g., Strause Gas Iron Co. v. William M. Crane Co., 235 F. 126, 131 (2d Cir. 1916) ("The modification of these forms into the design patent does not seem to us to have been dictated by other than utilitarian considerations. To suppose that any inventive effort was necessarily addressed towards pleasing even a most rudimentary aesthetic susceptibility appears to us far-fetched."); In re Eifel, 35 F.2d 70, 71 (C.C.P.A. 1929) (affirming the denial of a design patent where "[t]he general configuration of the wrench of appellant's design [was] substantially the same as that" in the closest reference, and the only changes were some "useful modifications").

 $^{56}\,$ As used in this Article, the term "ornamental" refers to a design that was "created for the purpose of ornamenting." See In re Carletti, 328 F.2d 1020, 1022 (C.C.P.A. 1964).

⁵⁷ See, e.g., In re Campbell, 104 F.2d at 396 (concluding there was no invention in the design of "a metal capsule to contain compressed gases"); Smith v. Dental Prods. Co., 140 F.2d 140, 152–53 (7th Cir. 1944) (concluding that there was no invention present in the design for an ampule).

⁵⁸ E.g., In re Johnson, 175 F.2d 791, 792 (C.C.P.A. 1949) (stating that the requirement of invention "defies definition and resides as a subjective standard in the mind of the judge considered as an 'average observer'"); In re Griffith, 86 F.2d 405, 408 (C.C.P.A. 1936) (affirming denial of design patent for a shelving design where there were only "slight modifications" shown between the claimed design and the prior art); see also In re Harshberger, 67 F.2d 925, 926 (C.C.P.A. 1933) (concluding that a design for roofing was inventive where "[t]he appearance of appellant's design is distinctly different from anything shown or suggested in the references, and, when the shingles of appellant are assembled on a roof, the aesthetic effect produced is substantially different from that shown or suggested by the references").

 $^{^{59}~184~\}mathrm{F.2d}~652$ (2d Cir. 1950); U.S. Des. Patent No. 145,344 figs.2 & 3 (filed Mar. 30, 1946).

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The Second Circuit concluded that the design lacked invention. ⁶⁰ The court's rationale was that the duck looked too much like the Disney characters Donald Duck, Huey, Dewey and Louie. ⁶¹

Putting aside for a moment the issue of whether cartoon characters, considered *qua* cartoon characters, may be properly considered as prior art for toys, this conclusion is still surprising. There are a number of significant visual differences between the claimed toy design and the Disney characters, as can be seen in this comic book cover from 1946⁶²:



As can be seen from this illustration, a number of differences exist between the Disney characters and the claimed design. For example, all of the Disney characters have arms (with hands) and legs, as opposed to the duck shown in the patent drawings, which has stylized, almost cherubic wings and no legs. And in the claimed design, the duck's eyes are located on the sides of the head; by contrast, the Disney characters' eyes are more anthropomorphically located on the front of their heads.

Nonetheless, in the opinion of the Second Circuit, "[t]he bill, the eyes, the body, the wings, and the tail all seem—to the naked judicial eye which may well be thought to approximate that of the infant for whom these toys are made—to be pretty substantially duplicated in one or more of the four Disney ducks." Thus, this case provides a good example of the unpredictability of cases decided under the "slight" or "significant" difference standard.

⁶⁰ Knickerbocker Plastic Co., 184 F.2d at 654.

⁶¹ Id.

⁶² Walt Disney Comics and Stories, Vol. 6, No. 4 (Jan. 1946).

⁶³ Knickerbocker Plastic Co., 184 F.2d at 654. It appears, to borrow from the copyright vernacular, that the court was focused on the similarity of the ideas and not the similarity of the expression.

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2. "Nonobviousness"

In 1952, Congress enacted a "completely rewritten" patent act. ⁶⁴ One of the most important features of the 1952 Patent Act was the addition of § 103. ⁶⁵ The Supreme Court first considered § 103 in its 1966 opinion in *Graham v. John Deere Co.* ⁶⁶ In *Graham*, the Court stated that § 103 did not change "the general level of innovation necessary to sustain patentability," characterizing § 103 as a codification of the principle announced in *Hotchkiss*. ⁶⁷ The Court then set forth a general, three-part test for nonobviousness, stating that "[u]nder § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. ⁶⁸ The Court also stated that "secondary considerations," such as evidence of commercial success, might be relevant to the § 103 inquiry.

Following *Graham*, courts struggled with how exactly to apply § 103 to designs. However, the results in many design patent cases continued the patterns observed in cases applying the "invention" standard. For example, a number of courts concluded that designs were obvious where the differences between the claimed design and the prior art were motivated by utilitarian concerns or where the novel appearance was the result of a manufacturing process. Likewise, courts applying the 1952 act often found that designs were obvious if they were not clearly ornamental. The court of the court

⁶⁴ P.J. Federico, Commentary on the New Patent Act, 75 J. PAT. & TRADEMARK OFF. Soc'y 161, 163 (1993).

⁶⁵ *Id.* at 180 (noting that the Committee Report characterized this as one of the "major changes or innovations" in the revised statute); *see also* Giles S. Rich, *Escaping the Tyranny of Words—Is Evolution in Legal Thinking Impossible*?, 14 FED. CIR. B.J. 193, 206 (2004–2005).

^{66 383} U.S. 1 (1966).

⁶⁷ *Id.* at 3–4.

⁶⁸ *Id.* at 17.

⁹ *Id.* at 17–18.

⁷⁰ See Hadco Prods., Inc. v. Lighting Corp. of Am., Inc., 312 F. Supp. 1173, 1177 (E.D. Pa. 1970) ("Recently the Supreme Court was called upon to interpret the statutory test for nonobviousness in a series of non-design cases. Much of what was said in those cases is difficult to apply in design cases because of the inherent differences between design and non-design patents." (footnote omitted)).

⁷¹ See, e.g., Med. Lab. Automation, Inc. v. Labcon, Inc., 670 F.2d 671, 674 (7th Cir. 1981) (affirming a finding of obviousness where "the only new feature [the design] offers is its inwardly sloping walls" and where the "District Court also noted that plastic molding necessitated sloping sides to permit easy extraction from the mold"); Payne Metal Enters., Ltd. v. McPhee, 382 F.2d 541, 545–46 (9th Cir. 1967) (concluding that a design patent was obvious where one "allegedly unique feature" was added "for ease of construction" and the appearance was simply a byproduct of the die-casting process).

 $^{^{72}}$ See Dale Elecs., Inc. v. R.C.L. Elecs., Inc., 488 F.2d 382, 390 (1st Cir. 1973). But see In re Carletti, 328 F.2d 1020 (C.C.P.A. 1964) (concluding that the claimed design

B. The Jurisprudence of the Federal Circuit

In 1982, Congress created a new Court of Appeals for the Federal Circuit.73 The Federal Circuit was given—and retains to this day nationwide jurisdiction over patent appeals, as well as jurisdiction over appeals from the Patent Office.⁷⁴ This Part will critically examine the development of the Federal Circuit's test for design patent nonobviousness, including key precedent from the Federal Circuit's predecessor court, the Court of Customs and Patent Appeals (C.C.P.A.).

1. Scope and Content of the Prior Art

In the utility patent context, it is well-established that § 103 prior art is limited to "analogous" arts. 16 In other words, a utility patent application cannot be rejected "based on combination of teachings of references from nonanalogous arts."⁷⁷ Therefore, in the utility patent context, the prior art is generally limited to references from the same "field of art" as the claimed invention and to other fields that are "sufficiently analogous to the art with which each patent is concerned that a person with a problem in the latter field would look to the former field to adopt a solution to the problem devised there."78 The analogous-arts rule is based on "the realization that an inventor could not possibly be aware of every teaching in every art," and attempts to limit the scope of the prior art to only those fields that would be "reasonably pertinent to the particular problem with which the inventor is involved."

For design patents, § 103 prior art also includes all "analogous arts." 81 However, in the design patent context, the analogous arts test has developed along a separate path. The seminal case on this issue is the C.C.P.A.'s 1956 opinion in *Glavas*. 82 In *Glavas*, the C.C.P.A. considered an appeal from the Patent Office's rejection of a design for "a swimming

for a gasket was not ornamental but was not obvious because its shape was not suggested by the prior art).

⁷⁵ In its first published opinion, the Federal Circuit adopted the precedents of the C.C.P.A. South Corp. v. United States, 690 F.2d 1368, 1370 (Fed. Cir. 1982) (en banc).

See Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (1982).

Id. § 127.

See Innovention Toys, LLC v. MGA Entm't, Inc., 637 F.3d 1314, 1321 (Fed. Cir. 2011). This is not to say, however, that the proper application of this principle is either well established or easy. See, e.g., 2 CHISUM, supra note 21, at § 5.03[1] ("A longstanding problem with the obviousness test of patentability is the determination of the pertinent art in terms of scope.").

In re Wood, 599 F.2d 1032, 1036 (C.C.P.A. 1979).

Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, 620 (Fed. Cir. 1985); see also In re Klein, 647 F.3d 1343, 1348 (2011) (stating the current version of this test).

⁷⁹ In re Wood, 599 F.2d at 1036.

 $^{^{80}}$ See Innovention Toys, LLC, 637 F.3d at 1321 (quoting In $\it re$ Bigio, 381 F.3d 1320, 1325 (Fed. Cir. 2004)).

See MPEP, supra note 12, § 1504.03(I)(A).

⁸² In re Glavas, 230 F.2d 447 (C.C.P.A. 1956).

float which is adapted to be secured upon the chest of a swimmer." In support of the rejection, the examiner cited patents for a life preserver, a pillow, and a "baby supporter...in the form of a wedge-shaped cushion."

The Board of Appeals of the United States Patent Office (the Board) affirmed, citing additional references disclosing designs for soap, bottles, and a razor blade sharpener. In doing so, the Board stated that it was "not impressed by [the applicant's] argument that the secondary references are taken from a nonanalogous art since it is well established that all arts are analogous in considering the shape of an object."

On appeal, the C.C.P.A. specifically rejected the general proposition that "all arts are analogous so far as designs are concerned." Instead, the C.C.P.A. advocated a more nuanced approach, stating that if "the prior art discloses any [single] article of substantially the same appearance as that of an applicant, it is immaterial what the use of such article is" because "the use to which an article is to be put has no bearing on its patentability as a design." However, "[a]s regards the combination of references in design cases, a different situation is presented." According to the C.C.P.A., "[t]he question in design cases is not whether the references sought to be combined are in analogous arts in the mechanical sense, but whether they are so related that the appearance of certain ornamental features in one would suggest the application of those features to the other."

The C.C.P.A. then distinguished between surface and configuration designs, stating that "if the problem is merely one of giving an attractive appearance to a surface, it is immaterial whether the surface in question is that of wall paper, an oven door, or a piece of crockery." However, in the case of product configuration designs, the C.C.P.A. stated that "the nature of the articles involved is a definite factor in determining whether the proposed change involves invention."

Applying this new test to the design at issue, the C.C.P.A. concluded that the pillow design was properly considered as prior art, accepting as "plausible" the examiner's opinion that "patents for pillows were in an art

⁸³ *Id.* at 448.

⁸⁴ Id. at 448-49.

³⁵ *Id.* at 449.

⁸⁶ *Id*.

⁸⁷ *Id.* at 450.

⁸⁸ *Id*.

⁸⁹ *Id*.

⁹⁰ *Id.* Notably, *Glavas* does not stand for the proposition that if a reference is sufficiently related—if it qualifies as prior art—then it will necessarily "suggest the application of [its] features to" the claimed design. *See id.* at 451 (concluding that the pillow designs were proper secondary references but that they did not "suggest modifying the [prior art design] in such a manner as to produce appellant's design").

⁹¹ *Id.* at 450.

⁹² *Id*.

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related to that of the floats of the appellant . . . for the reason that pillows are sometimes adapted to serve as floats." However, the C.C.P.A. concluded that the Board had erred in considering designs for bottles, soap, and a razor blade sharpener as prior art. According to the C.C.P.A.:

It is evident that a worker seeking ideas for improving the appearance of a device would look first to the similar devices of the prior art for ideas. If his problem were one of designing a float for swimmers, he would not be likely to turn to bottles, soap or razor blade sharpeners for suggestions, as was done by the board here, and accordingly the presence in any of the last-named devices of some particular element of configuration would not normally suggest the adaptation of that element to a float.

The C.C.P.A. did not explain, however, how the presence of a design element in a particular design could "suggest the adaptation of that element" to another design. ⁹⁶ At most, the use of a design feature in a similar product might suggest that it is *possible* to use that feature in a given product, but "possible" is very different than "obvious." ⁹⁷ Likewise, although *Glavas* states that the nature of the products "is a definite factor" when a finding of obviousness is based on a combination of references, the opinion does little to illuminate what type of factor this might be—or how it should be analyzed. ⁹⁸

Perhaps not surprisingly, the *Glavas* test for analogous arts proved difficult for courts—including the C.C.P.A. itself—to apply. For example, in the C.C.P.A.'s 1972 opinion in *Swett*, the main issue that divided the majority and the dissenters was the scope of the prior art. ⁹⁹ In *Swett*, the applicant had filed a patent for a design for a "Storage Container for Lettuce or the Like." ¹⁰⁰ The Patent Office rejected the application for obviousness, citing references disclosing "refrigerator' bowls," cubeshaped "food storage containers" and covers for light bulbs. ¹⁰¹ On appeal, the main source of disagreement between the majority and the dissenting judges was whether any or all of the cited references were sufficiently "related" under the *Glavas* standard. The majority simply concluded—without explanation—that the cited references were not sufficiently related, citing *Glavas*. ¹⁰² Two judges dissented. The first dissenting judge

⁹³ *Id.* at 451.

⁹⁴ *Id*.

⁹⁵ Id.

⁹⁶ See id. Other commentators have found Glavas to be similarly unsatisfying. See Mueller & Brean, supra note 8, at 488–89.

⁹⁷ See generally 35 U.S.C. § 103(a).

⁹⁸ In re Glavas, 230 F.2d at 450.

 $^{^{99}~~}In~re$ Swett, 464 F.2d 1399 (C.C.P.A. 1972).

¹⁰⁰ *Id.* at 1399.

¹⁰¹ *Id.* at 1399–1400.

¹⁰² *Id.* at 1402.

concluded that the claimed design was obvious in light of the refrigerator bowls, suggesting that those bowls were proper references but offering no explanation in support of such a conclusion.¹⁰³ The other dissenting judge agreed that the claimed design was obvious, but described the relevant art as "the package design art" and concluded that refrigerator bowls and light bulb covers were sufficiently related to qualify as prior art.¹⁰⁴

In 1993, the Federal Circuit signaled an intent to move away from the broad scope of analogous arts enunciated in *Glavas*. In an unpublished opinion in *Butera*, the panel majority reversed the rejection of a design patent application for "a combined insect repellent and air freshener." The design was rejected based on a single reference, a design patent for "a metal ball anode." The court reasoned that:

[o]ur predecessor court determined that "one of ordinary skill in the art to which [the] subject matter pertains" in design cases is a "designer of ordinary capability who designs articles of the type presented in the application." The "art to which the subject matter pertains" thus consists of articles of the type claimed. ¹⁰⁷

Thus, *Butera* limited the scope of analogous art to designs for articles of the same type, i.e., designs for items with "the same general use as that claimed in the design patent application." Because a metal ball anode is a different type of product than an insect repellant, the Federal Circuit reasoned that "[o]ne designing a combined insect repellent and air freshener would therefore not have reason to know of or look to a design for a metal ball anode." The Federal Circuit concluded that the cited reference was non-analogous art and could not support a rejection under § 103. ¹¹⁰

A few years after *Butera*, the Federal Circuit announced a similar rule in a published opinion.¹¹¹ In *Hupp v. Siroflex of America, Inc.*, the patent claimed a design for "a mold that is used to make a simulated stone pathway by molding concrete."¹¹² At trial, the jury found the claimed design to be obvious in light of a design for ceramic floor tile.¹¹³ On appeal, Hupp argued that the ceramic floor tile design was not a proper primary reference because: (1) "the ceramic tile is not a mold" and (2)

¹⁰³ Id. at 1402 (Rich, C.J., dissenting).

¹⁰⁴ *Id.* (Maletz, J., dissenting).

¹⁰⁵ In re Butera, No. 93-1041, 1993 WL 185206, at *1 (Fed. Cir. June 1, 1993) (unpublished opinion). One judge dissented without opinion. Id. at *2.

¹⁰⁶ *Id.* at *1 (citing U.S. Patent No. 210,586 (filed Feb. 25, 1966)).

Id. (alteration in original) (citation omitted).

¹⁰⁸ *Id.* at *2.

¹⁰⁹ *Id*.

¹¹⁰ *Id.* at *1.

¹¹¹ See Hupp v. Siroflex of Am., Inc., 122 F.3d 1456, 1462 (Fed. Cir. 1997).

¹¹² *Id.* at 1459.

¹¹³ *Id.* at 1462.

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there was no evidence in the record "to support a conclusion that an ordinary designer of molds for concrete walkways would look to ground coverings such as tile designs." ¹¹⁴

The Federal Circuit agreed with Hupp that the tile design was not a primary reference. The Federal Circuit stated that, for design patents, "[t]he scope of the prior art is not the universe of abstract design and artistic creativity, but designs of the same article of manufacture or of articles sufficiently similar that a person of ordinary skill would look to such articles for their designs." The Federal Circuit did not explain how to determine if an article is "sufficiently similar," but indicated that a proper primary reference should depict a design for "the same or a substantially similar article of manufacture" as the claimed design. Applying this test, the Federal Circuit determined that the ceramic tile design was not a proper primary reference for Hupp's mold. The Federal Circuit noted, in particular, that it had "been directed to no teaching or suggestion to a person of ordinary skill to look to a floor tile construction and convert it into the design of a mold to make a concrete simulated stone outdoor walkway.

2. Teaching, Suggestion, and Motivation

a. The Development of the TSM Test for Designs

The Federal Circuit has frequently expressed concern regarding the possibility for hindsight bias in determinations of obviousness, especially in situations where a finding of obviousness is based on a combination of references. To address these issues, the Federal Circuit developed the "teaching, suggestion, or motivation" (TSM) test. Under the TSM test, "a patent claim is only proved obvious if some motivation or suggestion to combine the prior art teachings can be found in the prior art, the nature of the problem, or the knowledge of a person having ordinary skill in the art."

¹¹⁴ Brief for Appellants at 17, 19, Hupp v. Siroflex of Am., Inc., 122 F.3d 1456 (1997) (Nos. 95-1268, 95-1289).

¹¹⁵ *Hupp*, 122 F.3d at 1462–63.

¹¹⁶ *Id.* at 1462.

¹¹⁷ *Id*.

¹¹⁸ See id. at 1463.

¹¹⁹ *Id*.

¹²⁰ See, e.g., Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 873 (Fed. Cir. 1985) (warning of "the tempting but forbidden zone of hindsight"), overruled on other grounds by Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 1068 (Fed. Cir. 1998).

 $^{^{121}}$ KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 407 (2007); see also In re Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999) (describing the TSM test as "the best defense against the subtle but powerful attraction of a hindsight-based obviousness"), overruled on other grounds by In re Gartside, 203 F.3d 1305, 1316 (Fed. Cir. 2000).

¹²² KSR Int'l Co., 550 U.S. at 407 (internal quotation marks omitted).

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The Federal Circuit has used a version of the TSM test for design patents as well as for utility patents. ¹²³ In the context of designs, however, "it is the overall appearance, the visual effect as a whole of the design, which must be taken into consideration." ¹²⁴ The Federal Circuit has, therefore, attempted to tailor its test to determine whether a design's overall appearance—not just its constituent parts—are taught or suggested by the prior art. ¹²⁵

The first step in the Federal Circuit's TSM test for designs derives from the C.C.P.A. case of *In re Rosen*. In *Rosen*, the C.C.P.A. stated that, in design patent cases, "there must be a reference, a something in existence, the design characteristics of which are basically the same as the claimed design in order to support a holding of obviousness." Building on this primary reference requirement from *Rosen*, the Federal Circuit has stated that two designs are not "basically the same" if "major modifications would be required to make [the prior design] look like the claimed design[]." The Federal Circuit has also clarified that a proper primary reference must be similar to the claimed design in its actual appearance, not just in its design concept.

If a proper primary reference is identified, then "other 'secondary' references 'may be used to modify it to create a design that has the same overall visual appearance as the claimed design." However, "secondary references may only be used to modify the primary reference if they are 'so related [to the primary reference] that the appearance of certain ornamental features in one would suggest the application of those features to the other."

As noted above, this test is designed to determine whether the prior art "suggested the overall appearance of the claimed design" to a person having ordinary skill in the art. ¹³¹ However, the Federal Circuit has never

 $^{^{123}~}$ $\it E.g.,$ L.A. Gear, Inc. v. Thom McAn Shoe Co., 988 F.2d 1117, 1124 (Fed. Cir. 1993).

¹²⁴ In re Rosen, 673 F.2d 388, 390 (C.C.P.A. 1982).

¹²⁵ See In re Cho, 813 F.2d 378, 382 (Fed. Cir. 1987); see also L.A. Gear, Inc., 988 F.2d at 1124 ("A reconstruction of known elements does not invalidate a design patent, absent some basis whereby a designer of ordinary skill would be led to create this particular design.").

¹²⁶ In re Rosen, 673 F.2d at 391.

¹²⁷ In re Harvey, 12 F.3d 1061, 1063 (Fed. Cir. 1993).

¹²⁸ *Id.* at 1064.

 $^{^{129}}$ Titan Tire Corp. v. Case New Holland, Inc., 566 F.3d 1372, 1381 (Fed. Cir. 2009) (quoting Durling v. Spectrum Furniture Co., 101 F.3d 100, 103 (Fed. Cir. 1996)).

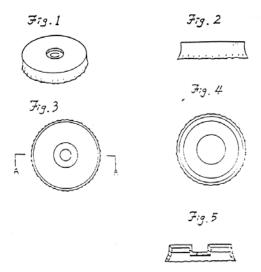
 $[\]stackrel{130}{Durling}$, 101 F.3d at 103 (alteration in original) (quoting In re Borden, 90 F.3d 1570, 1575 (Fed. Cir. 1996); see also Titan Tire Corp., 566 F.3d at 1381.

See In re Cho, 813 F.2d 378, 382 (Fed. Cir. 1987) (citing In re Rosen, 673 F.2d at 390); see also 35 U.S.C. § 103(a) ("A patent may not be obtained... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art...." (emphasis added)). The Federal Circuit recently stated, in dicta and without citation, that "[f]or design patents, the role of one skilled in the art in the obviousness context lies only in determining whether

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clearly explained precisely what the prior art must "suggest" or how it must do so. 132

For example, in *Cho*, the Federal Circuit indicated that in order to support a finding of obviousness, the prior art must suggest an aesthetic—as opposed to utilitarian—reason to combine references. ¹³³ In *Cho*, the applicant claimed a design for a "'crown type' bottle cap" with a centrally-located, cylindrical depression. ¹³⁴ At the bottom of the depression, there was a c-shaped score line that could be pressed in to open the bottle without removing the cap. ¹³⁵ The following illustrations were included with the application ¹³⁶:



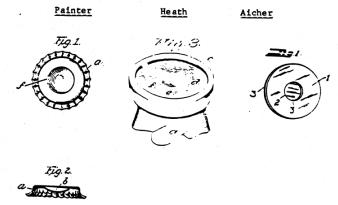
to combine earlier references to arrive at a single piece of art for comparison with the potential design or to modify a single prior art reference. Once that piece of prior art has been constructed, obviousness, like anticipation, requires application of the ordinary observer test, not the view of one skilled in the art." Int'l Seaway Trading Corp. v. Walgreens Corp., 589 F.3d 1233, 1240 (Fed. Cir. 2009) (footnote omitted). Although it is unclear whether the Federal Circuit will treat this passage from *Seaway* as an accurate statement of the law in future cases, at least one district court has already done so. *See* Apple, Inc. v. Samsung Elecs. Co., Ltd., No. 11–cv–1846, 2011 WL 7036077, at *12 (N.D. Cal. Dec. 2, 2011) (slip opinion) (citing *Seaway*, 589 F.3d at 1240).

Other commentators have noticed this doctrinal murkiness. See Mueller & Brean, supra note 8, at 501.

- ¹³³ See In re Cho, 813 F.2d at 382.
- ¹³⁴ *Id.* at 379.
- ¹³⁵ See id.
- ¹³⁶ *Id.* at 380.

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The examiner rejected the design as obvious, relying upon the following illustrations from three utility patents¹³⁷:



The Board affirmed.¹³⁸ The Board perceived the main difference between the claimed design and Painter, the primary reference, to be the addition of a "small centrally located depression." 139 According to the Board, "Heath and Aicher, as well as Figures 12 and 13, for example, of Painter, adequately illustrate that it is conventional to include centrally located cylindrical depressions in bottle caps." Based on these findings, the Board concluded that "it would have been obvious to the designer of ordinary skill in the bottle cap art to place the centrally located flap of Painter at the base of a centrally located depression so as to prevent accidental striking of the flap and unintentional opening of the cap."¹⁴¹

In reaching this conclusion, the Board acknowledged that the references did not "include an express suggestion of the combination proposed by the examiner," but nonetheless found that an ordinary designer "would have been motivated and would have found it obvious to combine the references...to obtain the claimed invention." The Board also stated that the applicant's argument that there was "no aesthetic reason whatsoever to make the combination" was not persuasive because an ordinary designer would have an actual-albeit utilitarianmotivation to add a cylindrical depression to Painter's design and "the resulting modification . . . would inherently include whatever aesthetic value is furnished by said depression." ¹⁴³

Id. at 380–81.

 $^{^{138}}$ Ex parte Cho, No. 657-86 (B.P.A.I. Aug. 13, 1985).

¹³⁹ See id. at 3.

¹⁴⁰ *Id*.

¹⁴¹ Id.

¹⁴² See id.

See id. The Board also stated that "it is not at all clear what aesthetic value [was] furnished" by Cho's contribution—namely, the addition of the cylindrical depression. Id.

On appeal, the Federal Circuit reversed. According to the majority, the Board had erroneously "analyzed Cho's cap as if it were the subject of an application for a utility patent." The majority stated:

Although it may have been obvious, from a utility standpoint, to place cylindrical depressions in crown type caps and to include flaps in the depressions, it does not follow that Cho's design was obvious. The design of every bottle cap having a recessed flap would not necessarily have been obvious because it would have been obvious to construct caps having recessed flaps. 146

While it is certainly true that the usefulness of a given feature would not necessarily invalidate every design in which that feature was used, the Board did not conclude that "every bottle cap having a recessed flap would... have been obvious." Instead, the Board concluded that the addition of a recessed flap was an obvious modification to Painter. ¹⁴⁸

Notably, although the majority cited *Rosen* for the general principle that "the teachings of references must be such as to have suggested the overall appearance of the claimed design," it did not discuss *Rosen*'s primary reference requirement or whether Painter was, in fact, a proper primary reference. The majority did suggest, however, that all of the references—including Painter—differed in material respects from the claimed design, focusing mainly on the relative sizes of the flaps and depressions. But if the differences between the claimed design and Painter were really as significant as the majority suggested—i.e., if Painter did not have "basically the same" design as the claimed design—the majority could have reversed for lack of proper primary reference. In the content of the primary reference.

Instead, the majority stated, in a rather conclusory fashion, that the references did not suggest "the overall appearance of Cho's design," even though some of the design components could be found in the prior art. The majority did not explain, however, how one design might suggest a modification to another design—by itself or in combination with other references. The majority stated is a modification to another design—by itself or in combination with other references.

Additionally, the Federal Circuit has sometimes conflated the issue of the proper scope of the prior art with the issue of whether the prior

¹⁴⁴ In re Cho, 813 F.2d 378, 382 (Fed. Cir. 1987).

 $^{^{145}}$ Id. In her dissent, Judge Newman argued that the Board's rejection was actually based on the design's lack of ornamentality. Id. at 383 (Newman, J., dissenting).

¹⁴⁶ *Id*. at 382.

 $^{^{147}}$ Compare id., with Ex parte Cho, No. 657-86, at 3.

¹⁴⁸ Ex parte Cho, No. 657-86, at 3.

¹⁴⁹ In re Cho, 813 F.2d at 382 (citing In re Rosen, 673 F.2d 388, 390 (C.C.P.A. 1982)).

See id.

¹⁵¹ See id.

 $^{^{\}scriptscriptstyle 152}$ See In re Rosen, 673 F.2d at 391.

¹⁵³ In re Cho, 813 F.2d at 382.

¹⁵⁴ See id.

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art actually suggests a claimed design. ¹⁵⁵ In fact, the Federal Circuit expressly equated *Glavas*' "so related" statement with the suggestion requirement in its 1996 opinion in *Borden*. ¹⁵⁶ The court also found an "implicit suggestion to combine" where the two design features that were missing from the primary reference could be found in similar products. ¹⁵⁷ Notably, however, the Federal Circuit did not identify any reason why a designer would have used those particular design features to modify that primary reference—instead, it appears that the Federal Circuit was satisfied that the requisite suggestion was present because the prior art indicated that it was *possible* to make those modifications. ¹⁵⁸

Likewise, in *Hupp*, the Federal Circuit suggested that the TSM test might be applicable both to the propriety of a primary reference and to the issue of whether any modifications to that primary reference would have been obvious. ¹⁵⁹ Indeed in *Hupp*, the Federal Circuit does not clearly indicate whether its ultimate conclusion—that the challenger had failed to prove that the design was obvious—was based on the lack of proper primary reference, a lack of suggestion in the prior art, or some combination of both. ¹⁶⁰ Thus, by 2007, the formulation of the Federal Circuit's TSM test for designs was well-established, ¹⁶¹ but its meaning and application were far from clear.

 $^{^{155}}$ See, e.g., In re Borden, 90 F.3d 1570, 1574–75 (Fed. Cir. 1996); Swede Indus., Inc. v. Zebco Corp., No. 93-1403, 1994 WL 124024, at *2 (Fed. Cir. Apr. 12, 1994).

See In re Borden, 90 F.3d at 1575–76 ("In order for secondary references to be considered, however, there must be some suggestion in the prior art to modify the basic design with features from the secondary references. That is, the teachings of prior art designs may be combined only when the designs are so related that the appearance of certain ornamental features in one would suggest the application of those features to the other." (internal citations and quotation marks omitted)).

¹⁵⁷ *Id.* at 1576.

¹⁵⁸ It appears that one of the references actually taught that it was possible to make a number of changes to a similar design, including—but presumably not limited to—the changes actually made in the claimed design. *See id.* at 1575–76.

Hupp v. Siroflex of Am., Inc., 122 F.3d 1456, 1462 (Fed. Cir. 1997) (describing a two-part process); *id.* at 1462–63 (apparently applying the TSM analysis to the first step, i.e., to determine whether a particular reference qualified as a proper primary reference).

¹⁶⁰ See id. at 1462–63.

¹⁶¹ *E.g.*, Durling v. Spectrum Furniture Co., 101 F.3d 100, 103 (Fed. Cir. 1996) ("Before one can begin to combine prior art designs, however, one must find a single reference, a something in existence, the design characteristics of which are basically the same as the claimed design. Once this primary reference is found, other references may be used to modify it to create a design that has the same overall visual appearance as the claimed design. These secondary references may only be used to modify the primary reference if they are so related to the primary reference that the appearance of certain ornamental features in one would suggest the application of those features to the other." (citations omitted) (internal quotation marks omitted)).

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b. KSR International Co. v. Teleflex Inc.

The Supreme Court discussed the Federal Circuit's TSM test at length in its 2007 opinion in *KSR International Co. v. Teleflex Inc.*¹⁶² In *KSR*, the patent-in-suit was a utility patent directed "to an adjustable pedal assembly for use with automobiles having engines that are controlled electronically with a device known as an electronic throttle control." The sole claim at issue "broadly disclose[d]... an adjustable pedal assembly." The district court found "little difference between the teachings of the prior art and the claims of the patent-in-suit." Specifically, the district court found that the main reference, Asano, taught "the structure and function of each of the [asserted claim's] limitations, except those relating to an electronic pedal position sensor," that the sensor was "fully disclosed by other prior art references," and that a person with ordinary skill in the art would have been motivated to combine Asano with one of those sensors. Therefore, the district court granted summary judgment on the issue of obviousness.

On appeal, the Federal Circuit vacated and remanded the case. The Federal Circuit stated that the district court had "applied an incomplete teaching-suggestion-motivation test" because the district court granted summary judgment without making "specific findings as to whether there was a suggestion or motivation to combine the teachings of Asano with an electronic control in the particular manner claimed" in the claim at issue. ¹⁶⁹

The Supreme Court granted certiorari and reversed.¹⁷⁰ The Court specifically rejected what it described as "the rigid approach" used by the Federal Circuit.¹⁷¹ The Court stated that although the TSM test "captured a helpful insight," such insights "need not become rigid and mandatory

¹⁶² KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 415 (2007).

 $^{^{163}\,}$ Teleflex, Inc. v. KSR Int'l Co., 119 F. App'x 282, 283 (Fed. Cir. 2005) (footnote omitted).

¹⁶⁴ Teleflex, Inc. v. KSR Int'l Co., 298 F. Supp. 2d 581, 592 (E.D. Mich. 2003).

¹⁶⁵ *Id*.

¹⁶⁶ *Id.* at 592–94.

¹⁶⁷ *Id.* at 596.

¹⁶⁸ *Teleflex*, 119 F. App'x at 283.

¹⁶⁹ *Id.* at 288.

 $^{^{\}scriptscriptstyle 170}~$ KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 407 (2007).

¹⁷¹ *Id.* at 415. Notably, the Court treated the patent at issue in *KSR* as a "combination patent," i.e., a patent "which only unites old elements with no change in their respective functions," and indicated that such patents should be subjected to careful scrutiny. *See id.* at 415–16 (quoting Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp., 340 U.S. 147, 152–53 (1950)). Although a full discussion of this issue is beyond the scope of this Article, there are a number of reasons why design patents should not be treated as combination patents. *See* Mueller & Brean, *supra* note 8, at 517–23 (discussing some of these reasons). Therefore, the Supreme Court's discussion in *KSR* regarding combination patents should not be applied to design patents. *Cf. id.* at 518 ("The Supreme Court's decision in *KSR* has very limited, if any, applicability to design patents.").

formulas; and when it is so applied, the TSM test is incompatible with our precedents."¹⁷² The Court further stated that "[t]he obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents."¹⁷³ The Court emphasized that "[r]igid preventative rules that deny factfinders recourse to common sense . . . are neither necessary under our case law nor consistent with it."¹⁷⁴

The Court stated that the *Graham* framework "continue[s] to define the inquiry that controls" in a § 103 analysis. The Court also instructed lower courts to make their obviousness analyses explicit, but stated that "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." Thus, under *KSR*, "any need or problem known in the field . . . and addressed by the patent can provide a reason for combining [prior art] elements in the manner claimed."

c. Design Patents and the TSM Test, Post-KSR

In *Titan Tire Corp. v. Case New Holland*, the Federal Circuit was presented with—but declined to answer—the question of whether certain parts of *KSR* should be applied to design patents. The Federal Circuit acknowledged that "the application of *KSR* to design patents was new and untested ground" and stated that "it is not obvious that the Supreme Court necessarily intended to exclude design patents from the reach of *KSR*." However, the court did not deem it necessary to decide whether it needed to make any changes to its test for design patent nonobviousness in order to resolve the issues before it. Therefore, the impact of *KSR* upon design patents remains an open issue.

3. Secondary Considerations

As noted above, in *Graham*, the Supreme Court stated that "secondary considerations [such] as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." Following *Graham*, courts have recognized other secondary factors such as simultaneous invention, industry praise, and

 $^{^{\}scriptscriptstyle 172}$ KSR Int'l Co., 550 U.S. at 418–19.

¹⁷³ *Id.* at 419.

¹⁷⁴ *Id.* at 421.

 $^{^{\}scriptscriptstyle 175}$ $\,$ Id. at 407 (referring to Graham v. John Deere Co., 383 U.S. 1, 17–18 (1966)).

¹⁷⁶ *Id.* at 418.

¹⁷⁷ *Id.* at 420.

¹⁷⁸ 566 F.3d 1372 (Fed. Cir. 2009).

¹⁷⁹ *Id.* at 1384–85 (citation omitted) (internal quotation marks omitted).

¹⁸⁰ Id. at 1385

¹⁸¹ Graham v. John Deere Co., 383 U.S. 1, 17–18 (1966).

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copying. 182 Although *Graham* described these considerations as "secondary," the Federal Circuit has held that evidence regarding these considerations "must be considered when present." 183

In the design patent context, two of the secondary considerations—commercial success and copying—have been raised frequently by patent owners. ¹⁸⁴ Therefore, this subpart will briefly explore the Federal Circuit's treatment of these two considerations.

a. Commercial Success

In the utility patent context, it has been said that "the Federal Circuit has transformed commercial success from a tiebreaker to a virtual trump card." However, in the design context, the Federal Circuit has been far more circumspect in its treatment of evidence of commercial success. In its 1984 opinion in *Litton Systems, Inc. v. Whirlpool Corp.*, the Federal Circuit stated that:

[C]ommercial success, while relevant as showing the nonobviousness of an invention, presents a special difficulty in a design patent case. To be of value, evidence of commercial success must clearly establish that the commercial success is attributable to the design, and not to some other factor, such as a better recognized brand name or improved function. ¹⁸⁶

Thus, where the patentee had "good commercial success" but did not provide any evidence attributing that success to the patented design, the Federal Circuit deemed the commercial success to be "of no help" to the patentee. Therefore, design patent owners who wish to rely on evidence of commercial success have the burden of establishing a link, or "nexus," between commercial success and the product's appearance.

By contrast, in utility patent cases, the requisite "nexus may be inferred when 'the patentee shows both that there is commercial success, and that the thing (product or method) that is commercially successful is the invention disclosed and claimed in the patent." The reasons for

 $^{^{\}tiny 182}$ Geo M. Martin Co. v. Alliance Mach. Sys. Int'l LLC, 618 F.3d 1294, 1304–05 (Fed. Cir. 2010).

 $^{^{183}}$ Id. at 1304; see also Sash Controls, Inc. v. Talon, L.L.C., 185 F.3d 882, 1999 WL 110546, at *5–6 (Fed. Cir. 1999) (unpublished table decision) (vacating a judgment holding a design patent invalid for failure to admit and consider evidence regarding the secondary considerations).

¹⁸⁴ See, e.g., Sash Controls, Inc., 1999 WL 110546, at *4–5.

Merges, supra note 5, at 827.

 $^{^{186}}$ 728 F.2d 1423, 1443 (Fed. Cir. 1984), overruled in part on other grounds by Two Pesos Inc. v. Taco Cabana, 505 U.S. 763 (1992), and abrogated in part on other grounds by Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 671 (Fed. Cir. 2008) (en banc).

¹⁸⁷ *Id.* at 1443.

 $^{^{188}}$ See, e.g., Neo-Art, Inc. v. Hawkeye Distilled Prods. Co., No. 88-1464, 1989 WL 80264, at *1 (Fed. Cir. July 21, 1989).

Iron Grip Barbell Co. v. USA Sports, Inc., 392 F.3d 1317, 1324 (Fed. Cir. 2004) (quoting Demaco Corp. v. F. Von Langsdoff Licensing Ltd., 851 F.2d 1387,

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these starkly different burdens are not clear from the case law. Although the Federal Circuit acknowledged in Litton that commercial success may not always be attributable to the patented invention, 190 the same thing could—and indeed has—been said in the context of utility patents. 191 It appears that the Federal Circuit may be making an unstated factual assumption that consumers are primarily motivated to buy products based on their utilitarian attributes, not based on their appearances. 192 If that were true, it would make sense to treat design patents and utility patents differently. However, this factual assumption is highly questionable. While consumers of some products may, in fact, be primarily driven by utilitarian concerns, there are many product markets in which the product's appearance is an equally—if not more important factor in consumer purchasing decisions. 193 For example, a consumer looking for a new microwave might actually be more concerned with whether the microwave fits with his existing décor than whether the microwave is faster, more efficient, or otherwise technically superior to other available models. 194

b. Copying

The Federal Circuit has made it clear that evidence of copying is "relevant to analysis of the obviousness of a design." However, the Federal Circuit has provided little guidance for how and when such evidence should be used. ¹⁹⁶ For example, the Federal Circuit has never squarely addressed the issue of whether a design patent owner must demonstrate a nexus between the claimed design and copying; consequently, it is not surprising that district courts have treated this type of evidence in markedly different manners. ¹⁹⁷

1392 (Fed. Cir. 1988)). The author has been unable to find any cases in which a court has considered the issue of whether this inference should be applied to designs.

¹⁹¹ See, e.g., Kitch, supra note 41, at 332.

See, e.g., Petersen Mfg. Co. v. Central Purchasing, Inc., 740 F.2d 1541, 1549 (Fed. Cir. 1984) ("[T]here is *no evidence* that the acceptance of the tool is due to its ornamental appearance rather than to its filling the need for a quality tool of this type.").

type.").

193 "The importance of perceived aesthetic features and qualities of goods is well recognized by advertisers and within corporate marketing and product management."

BARRY SMART, CONSUMER SOCIETY: CRITICAL ISSUES & ENVIRONMENTAL CONSEQUENCES 94 (2010).

- ¹⁹⁴ Cf. Litton Sys., Inc., 728 F.2d at 1443 (considering a design for a microwave).
- $^{195}~$ E.g., L.A. Gear, Inc. v. Thom McAn Shoe Co., 988 F.2d 1117, 1124 (Fed. Cir. 1993).

See id.; see also Avia Group Int'l, Inc. v. L.A. Gear Cal., Inc., 853 F.2d 1557, 1564 (Fed. Cir. 1988) (stating merely that "[c]opying is additional evidence of nonobviousness"), abrogated in part on other grounds by Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 671 (Fed. Cir. 2008) (en banc).

Compare Tyco Indus., Inc. v. Tiny Love, Ltd., 914 F. Supp. 1068, 1081 (D.N.J. 1996) (requiring a nexus), with Ashley Furniture Indus., Inc. v. Lifestyle Enter., Inc., 574 F. Supp. 2d 920, 932 (W.D. Wis. 2008) (considering evidence of copying without any mention of a nexus requirement).

¹⁹⁰ 728 F.2d at 1443.

Although the Federal Circuit has discussed the issue of copying more often in its utility patent opinions, those opinions provide little guidance in the design patent context because the rationales used in those cases have little applicability in the design context. In utility patent cases, the Federal Circuit has often treated evidence of copying as "corollary and corroborative of the failure of others in the field." The Federal Circuit stated in one of its early cases that "[t]he copying of an invention may constitute evidence that the invention is not an obvious one. This would be particularly true where the copyist had itself attempted for a substantial length of time to design a similar device, and had failed." ¹⁹⁹ In other words, the rationale appears to be "that a competitor engages in such copying only if they need a solution to the problem the invention addresses and they cannot come up with one on their own." However, this "rationale is open to question" because "[a] company may copy an invention not because it had no choice, but because it thought the invention was unpatented or unpatentable and therefore free to be used without need for reinvention." But regardless of the merits of this rationale in the utility patent context, it has little applicability in the design patent context because it is unlikely that a design "copyist had itself attempted for a substantial length of time to design a similar device, and had failed."202

In the utility patent context, it has also been "noted that copying may weigh in favor of nonobviousness with particular force where the field is crowded and the copying is exact." In these cases, "[t]he rationale is that, where many alternatives are available, the fact that the defendant chose to copy the plaintiff's exact contribution to the field, rather than one of the many other prior art options, suggests that there is something particularly important about the claimed advance." Thus it has been argued that "copying... provides direct (though not conclusive) evidence that the invention is perceived by competitors... as a

Sarah A. Geers, Comment, Common Sense and the Fact Finder Without Skill in the Art: The Role of Objective Evidence in Achieving Proper Technology Specificity, 40 SETON HALL L. REV. 225, 254 (2010) (citing Advanced Display Sys. v. Kent State Univ., 212 F.3d 1272, 1285 (Fed. Cir. 2000); Dow Chem. Co. v. Am. Cyanamid Co., 816 F.2d 617, 622 (Fed. Cir. 1987); and Vandenberg v. Dairy Equip. Co., 740 F.2d 1560, 1567 (Fed. Cir. 1984)).

¹⁹⁹ Vandenberg, 740 F.2d at 1567 (citations omitted).

²⁰⁰ Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421, 1429 (2009).

²⁰¹ Id. at 1429 n.33; see also Gregory N. Mandel, Patently Non-Obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational, 67 OHIO ST. L.J. 1391, 1424 (2006) (observing that copying may even "indicate that the copiers believe that the invention is obvious").

²⁰² See Vandenberg, 740 F.2d at 1567.

Jonathan J. Darrow, Secondary Considerations: A Structured Framework for Patent Analysis, 74 Alb. L. Rev. 47, 70 (2011).

 $^{^{204}}$ *Id.* at 70–71 ("The inference of nonobviousness would not apply, however, where copying was motivated by factors other than the merits of the invention.").

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significant contribution." However, this rationale does not necessarily apply to the design context, where evidence of copying is likely more probative on the issue of commercial success than it is on the issue of innovation.²⁰⁶ Therefore, while the Federal Circuit has made it clear that district courts must consider evidence of copying if it is available, ²⁰⁷ it is far from clear why or how such evidence should be used.

IV. IMPROVING THE TEST FOR NONOBVIOUSNESS IN DESIGNS

A. Proposed New Approach

1. Scope and Content of the Prior Art

Under the Federal Circuit's current test, as stated in *Hupp*, § 103 prior art for design patents includes: (1) "designs of the same article of manufacture" and (2) designs "of articles sufficiently similar that a person of ordinary skill would look to such articles for their designs."²⁰⁸ This test generally mirrors the test for analogous arts in the utility patent context.

The general rule announced in *Hupp*—namely, that "[t]he scope of the prior art [for design patents] is not the universe of abstract design and artistic creativity"²¹⁰—is a good one. If Congress wanted to encourage designers to create more attractive concrete-walkway designs, it should

 $^{\tiny 206}$ See generally In re Rosen, 673 F.2d 388, 391 n.6 (C.C.P.A. 1982) (noting that the applicant submitted evidence of copying to "substantiate its claim of commercial success" and stating "that clear-cut imitation is indicative of the commercial appeal of the design of an article and should be given proper consideration").

 $[\]stackrel{\scriptscriptstyle{207}}{\it{See}}$ Sash Controls, Inc. v. Talon, L.L.C., 185 F.3d 882, 1999 WL 110546, at *4–5 (Fed. Cir. 1999) (unpublished table decision).

²⁰⁸ Hupp v. Siroflex of Am., Inc., 122 F.3d 1456, 1462 (Fed. Cir. 1997). The Patent Office, however, interprets the scope of analogous arts much more broadly for representational designs than for nonrepresentational designs. See generally PAUL ZELANSKI & MARY PAT FISHER, DESIGN PRINCIPLES AND PROBLEMS 321 (2d ed. 1996) (defining the term "representational" as referring to "art that depicts objects from the world of our experience," as opposed to "nonrepresentational art," which "does not depict real or natural things in any manner"). Specifically, the MPEP states that "[a]nalogous art can be more broadly interpreted when applied to a claim that is directed to a design with a portion simulating a well known or naturally occurring object or person." MPEP, supra note 12, § 1504.03(II)(A)(1). According to the MPEP, "[t] he simulative nature of that portion of the design is prima facie evidence that art which simulates that portion would be within the level of ordinary skill under 35 U.S.C. 103(a)." Id. (citing no authority). See also id. § 1504.01(d) (stating that "a claim directed to a design for an article which simulates a well known or naturally occurring object or person" may be rejected under § 103 (citing In re Wise, 340 F.2d 982 (C.C.P.A. 1965)). Although a full discussion of this "simulation" issue is beyond the scope of this Article, it is not clear that this heightened scrutiny of representational imagery is necessary to further the goals of the design patent laws.

Compare Hupp, 122 F.3d at 1462, with Innovention Toys, LLC v. MGA Entm't, Inc., 637 F.3d 1314, 1321 (Fed. Cir. 2011).

²¹⁰ *Hupp*, 122 F.3d at 1462.

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not matter if the basic design had been used previously on ceramic tiles. And, as discussed above, those designing different products face essentially different design problems. Therefore, it makes sense to limit the scope of the prior art to "designs of the same article of manufacture."

However, the inclusion of articles that an ordinary designer "would look to" is problematic in the context of designs. Contemporary designers routinely seek inspiration from myriad outside sources, including other product designs. Therefore, contrary to the intuitions of the C.C.P.A. and the Federal Circuit, an ordinary designer might, in fact, look to soap designs when designing a swim float 213 or to metal ball anode designs while designing an insect repellant. Additionally, many designers do not limit themselves to one particular type of product design. Thus, the ordinary designer of insect repellants might, in fact, be a generalist who does have knowledge of designs for other types of products. Therefore, to the extent that the Federal Circuit's current rule depends on what an ordinary designer would, in fact, know or do, it could sweep all arts into the scope of the prior art—the precise result that the Federal Circuit was trying to avoid in *Butera* and *Hupp*. 217

Moreover, the mere fact that designers tend to look at other product designs does not mean that it would be obvious *ex ante* for an ordinary designer to look to any particular product—or type of product—for inspiration. Even if a designer working on a design for a stone walkway might, in fact, tend to look to other flooring designs for inspiration, that does not mean that any specific flooring design "logically would have commended itself to [the designer's] attention in considering his

²¹¹ See id.

See Christian Boucharenc, Design for a Contemporary World: A Textbook on Fundamental Principles 93 (2008) ("[D]esign professionals often turn to nature, culture and other products for sources of inspiration."); see also Mueller & Brean, supra note 8, at 440 ("It is certainly common and useful for designers to consult the same or functionally related products for inspiration. However, designers routinely seek inspiration from designs far beyond those fairly considered 'related' in any functional sense." (footnote omitted)).

See In re Glavas, 230 F.2d 447, 451 (C.C.P.A. 1956) ("If [a designer's] problem were one of designing a float for swimmers, he would not be likely to turn to bottles, soap or razor blade sharpeners for suggestions" (emphasis added)).

See In re Butera, No. 93-1041, 1993 WL 185206, at *2 (Fed. Cir. Jun. 1, 1993) ("One designing a combined insect repellent and air freshener would therefore not have reason to know of or look to a design for a metal ball anode." (emphasis added)).

²¹⁵ See Mueller & Brean, supra note 8, at 444.

²¹⁶ See id.

See In re Butera, 1993 WL 185206, at *1 (rejecting the Board's suggestion that all arts are analogous for designs); Hupp v. Siroflex of Am., Inc., 122 F.3d 1456, 1462 (Fed. Cir. 1997) ("The scope of the prior art is *not* the universe of abstract design and artistic creativity" (emphasis added)).

problem."²¹⁸ Moreover, because different types of products present different design problems, the adaptation of a design concept to a different type of product can be a very creative process.²¹⁹ Thus, barring designers from creatively adapting designs to new types of products would tend to discourage, rather than encourage, the progress of the decorative arts.²²⁰ For all of these reasons, the test for analogous arts should not be based on what an ordinary designer might be expected to "look to."

However, simply dropping the "look to" prong from the *Hupp* test and limiting the prior art to precisely "the same article of manufacture" could, in many cases, lead to an unduly narrow inquiry. Although different products generally present different design problems, there are some instances where technically different products present essentially the same design problem. For example, a plastic lawn bag is not the same product as a paper bag; however, the basic design problem—how to decorate a bag—is essentially the same in both cases. Therefore, the idea that a designer working on a decorative design for a plastic lawn bag would ignore designs for paper bags "makes little sense." After all, "[a] person of ordinary skill is also a person of ordinary creativity, not an automaton."

Additionally, it is not uncommon for designers working on new products to imitate familiar old products.²²³ For example, "[t]he appearance of most early electric appliances had taken the form of the object whose function they most closely followed. Electric cookers looked like gas cookers, which in turn imitated coal ranges, and from early in their history many electric fires had simulated coal or log fires."²²⁴ While electric ranges and gas ranges are technically different products, both

Innovention Toys, LLC, 637 F.3d 1314, 1321 (Fed. Cir. 2011). Additionally, a flooring design would not, in this situation, have "the same purpose as the claimed invention" or "relate to the same [design] goal." See id. at 1321–22.

²¹⁹ *Cf.* Mueller & Brean, *supra* note 8, at 443 (observing that the "borrowing of a basic design concept and adapting it to a device having different functional requirements and limitations is generally viewed to be laudable").

See id. ("The designers we interviewed generally felt that they should be encouraged to borrow, adapt, and combine prior design features in their own original way. In their view, this would lead to new and better designs." (footnote omitted)).

²²¹ Cf. KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 420–21 (2007) ("The idea that a designer hoping to make an adjustable electronic pedal would ignore Asano because Asano was designed to solve the constant ratio problem makes little sense."). But see In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999) (criticizing the Board for rejecting a utility patent application for plastic lawn bags decorated with jack-olantern faces where the prior art disclosed conventional trash bags and paper bags decorated like jack-o-lanterns but did not contain any express suggestion that the paper bag design could be applied to plastic lawn bags), overruled on other grounds by In re Gartside, 203 F.3d 1305, 1316 (Fed. Cir. 2000).

²²² KSR Int'l Co., 550 U.S. at 421.

 $[\]stackrel{\scriptscriptstyle 223}{_{\sim}}$ See Adrian Forty, Objects of Desire 11–12 (1986).

 $^{^{224}}$ *Id.* at 197.

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products occupy the same general product niche. A rule that would exclude designs for gas ranges from the prior art for electric ranges would, therefore, defy common sense.²²⁵

The better approach would be to adopt the *Butera* test and limit the prior art to articles "of the same type"—products with "the same general use as that claimed in the design patent application." This approach would allow for flexibility and the application of common sense, as mandated by *KSR*, ²²⁷ while still appropriately focusing the inquiry on products that present the same essential design problem.

2. Primary Reference Requirement

Under the Federal Circuit's current test, every finding of obviousness must include the identification of a primary reference, i.e., "a something in existence, the design characteristics of which are basically the same as the claimed design." The primary reference requirement performs the valuable function of focusing the nonobviousness inquiry on the design "as a whole." If a new design is so different from other products of its type that no primary reference can be found, that would generally be strong evidence of nonobviousness.

However, it has been argued that the Federal Circuit's primary reference requirement may be too rigid to survive *KSR*. ²³¹ It is true that, in *KSR*, the Court disapproved of "[r]igid preventative rules that deny factfinders recourse to common sense" in evaluating issues of nonobviousness. ²³² But the Court did not disapprove of rigidity, per se; rather, it disapproved of rigidity that "den[ies] factfinders recourse to common sense." ²³³ In many cases, requiring a primary reference will not do so. ²³⁴ Therefore, it is not necessary to wholly abandon the primary reference requirement. And, because it plays such a valuable role in properly focusing the § 103 inquiry, the primary reference requirement should be retained as a general rule.

²²⁵ See KSR Int'l Co., 550 U.S. at 421.

²²⁶ In re Butera, No. 93-1041, 1993 WL 185206, at *1–2 (Fed. Cir. Jun. 1, 1993).

²²⁷ KSR Int'l Co., 550 U.S. at 415, 421.

See Titan Tire Corp. v. Case New Holland, Inc., 566 F.3d 1372, 1381 (Fed. Cir. 2009) (quoting Durling v. Spectrum Furniture Co., 101 F.3d 100, 103 (Fed. Cir. 1996)).

See 35 U.S.C. § 103(a) (referring to "the subject matter as a whole"); see also Titan Tire Corp., 566 F.3d at 1380–81 (explaining that the relevant issue under § 103 is "whether one of ordinary skill would have combined teachings of the prior art to create the same overall visual appearance as the claimed design" (emphasis added) (quoting Durling, 101 F.3d at 103)).

²³⁰ Graham v. John Deere Co., 383 U.S. 1, 17–18 (citing 35 U.S.C. § 103(a)).

See Du Mont, supra note 8, at 609 n.483; see also Panel II: The Global Contours of IP Protection for Trade Dress, Industrial Design, Applied Art, and Product Configuration, 20 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 783, 821 (2010) (comments of Mark Janis).

²³² See KSR Int'l Co., 550 U.S. at 403.

See id.

 $^{^{\}tiny 234}$ See Titan Tire Corp., 566 F.3d at 1381.

Nonetheless, in some situations, there may be evidence that indicates it would have been obvious to give a product a certain appearance despite the primary reference. For example, in the 1876 case of *Bennage v. Phillippi*, the Assistant Commissioner of Patents affirmed a refusal to dissolve an interference relating to several designs that he concluded were not "products of invention." The designs at issue in *Bennage* were various souvenirs made to resemble the 1876 Centennial Exhibition's Memorial Hall: "Phillippi works the design into a 'metallic casting for toy banks, inkstands,' &c. Stewart makes a paper-weight of that form, and Bennage an inkstand."

It appears that the claimants in *Bennage* were the first to create these products in the shape of Memorial Hall.²³⁷ Therefore, there were no pre-existing products that could have served as primary references. Nonetheless, the near-simultaneous creation of various souvenirs in the same shape indicates that the application of that particular design to souvenirs was obvious.²³⁸ Therefore, in cases such as *Bennage*, where there is evidence that some exogenous event has prompted designers to apply a particular design to a particular class of products, the fact that there is no primary reference should not bar a finding of obviousness.²³⁹ In such situations, no design patent incentive is needed, therefore "there is no need to give exclusive rights to the first [designer]."

Likewise, evidence of industry practice or custom may render certain design solutions obvious despite a lack of a primary reference. For example, the patent in *Whitman Saddle* claimed a design for a saddle which, according to the trial court, "united two halves" of previous saddle designs—the Granger saddle and the Jenifer cantle. Therefore, in *Whitman Saddle*, there was arguably no primary reference because neither reference had "basically the same" overall appearance as the claimed design. However, the Court suggested that there was an industry

²⁵⁵ Bennage v. Phillippi, 9 O.G. 1159 (1876), *reprinted in HECTOR T. FENTON*, THE LAW OF PATENTS FOR DESIGNS 287 (1889) [hereinafter Bennage v. Phillippi]. The examiner rejected each of the designs for failing to contain patentable subject matter—specifically, for lack of originality and for lack of invention. *Id.* at 287.

²³⁶ *Id.* at 288. *And see generally* Linda P. Gross & Theresa R. Snyder, PHILADELPHIA'S 1876 CENTENNIAL EXHIBITION 101–02 (2005) (discussing Memorial Hall).

²³⁷ See Bennage v. Phillippi, supra note 235, at 288.

²³⁸ See id

 $^{^{239}}$ See generally KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 418–19 (2007) (recognizing that in some cases, the relevant motivation may not be contained in prior art references).

²⁴⁰ Cf. WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 304 (2003) (observing, in the utility patent context, that "if some exogenous shock gives [an unknown idea] value, it will be discovered more or less simultaneously by a number of those who can exploit it; there is no need to give exclusive rights to the first discoverer").

²⁴¹ Smith v. Whitman Saddle Co., 148 U.S. 674, 680 (1893).

 $^{^{242}}$ See Perry J. Saidman, What Is the Point of the Point of Novelty Test for Design Patent Infringement?, 90 J. Pat. & Trademark Off. Soc'y 401, 419 (2008) ("In Whitman Saddle,

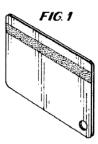
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custom of mixing and matching existing saddle components in predictable ways. ²⁴³ If it were true that, in the saddle industry at that time, "the changes in [the saddle] design... were of a kind in common practice among ordinary workmen in the field," ²⁴⁴ that could indicate that the design concept itself was obvious even if neither of the main references in *Whitman Saddle* qualified as a primary reference. ²⁴⁵

In these types of situations, a strict requirement that a finding of obviousness be supported by the identification of a primary reference would likely be too rigid to survive *KSR*. Therefore, where an examiner or a defendant can produce evidence showing that a particular design was obvious, the Federal Circuit should recognize an exception to the general primary reference requirement.²⁴⁶

The Federal Circuit should also be careful not to interpret the requirement that the primary reference have "basically the same" appearance as the claimed design so strictly as to defy common sense. In the recent case of *Vanguard Identification Systems, Inc. v. Kappos*, the patent at issue claimed a design for a data card, as shown below ²⁴⁷:



as apparent from the illustrated prior art, there is no *Rosen* reference. The Granger is only 50% of the patented design, as is the Jenifer.").

²⁴³ See Whitman Saddle Co., 148 U.S. at 681 ("[I]t was customary for saddlers to vary the shape and appearance of saddle-trees in numerous ways, according to the taste and fancy of the purchaser.").

²⁴⁴ See Fields v. Schuyler, 472 F.2d 1304, 1306 n.3 (D.C. Cir. 1972) (citing Whitman Saddle Co., 148 U.S. at 681).

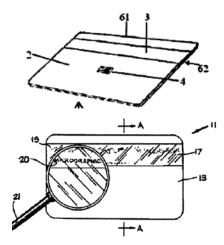
This is not to say, as the Supreme Court suggested in *Whitman Saddle*, that obviousness should be determined by the designer's ability to physically put existing elements together—i.e., because the reduction to practice may have been obvious. *See id.* Because designs for articles of manufacture are, generally, not technologically complex, innovation in design "usually lies in the concept rather than in the reduction to practice." *Cf.* Jeanne C. Fromer, *The Layers of Obviousness in Patent Law*, 22 HARV. J.L. & TECH. 75, 100 (2008) (making this observation of "less complex" inventions such as "mechanical and other traditional inventions"). However, if it were true, as the Supreme Court suggested in *Whitman Saddle*, that there was a mix-and-match custom and the claimed design was a predictable result of this customary design process, that would indicate that the conception of the resulting saddle was obvious.

²⁴⁶ Importantly, this evidence should not be limited to written disclosures in prior art references. *See* KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 419 (2007).

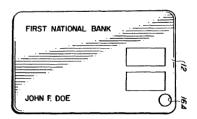
²⁴⁷ See Vanguard Identification Sys., Inc. v. Kappos (*Vanguard III*), 407 F. App'x 479, 480 (Fed. Cir. 2011) (per curiam); U.S. Des. Patent No. D467,247 S (filed May 11, 2001).

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On reexamination, the examiner rejected the design as "obvious based on various alternative combinations of the prior art references." The examiner cited the following references as primary references²⁴⁹:



The examiner also cited secondary references for each primary reference that disclosed holes similar to the one shown in the claimed design. For example, one of the secondary references, a utility patent, disclosed a credit card with a hole punched through it, as shown below 251:



In its specification, this patent disclosed a number of reasons why having a hole would be a useful addition to a credit card. 252

Based on these references, the examiner concluded that it would have been obvious to modify either of the primary references by adding a

Vanguard Identification Sys., Inc. v. Patent of Bank of Am. Corp. Patent Owner ($Vanguard\ I$), No. 2009-2973, 2009 WL 2342053, at *3 (B.P.A.I. July 31, 2009).

²⁴⁹ *Id.* at *2.

²⁵⁰ See id. at *3.

U.S. Patent No. 5,096,228 fig.5 (filed Jan. 10, 1990); see also id. at col.1, l.8 (identifying the card as "credit cards"). Unfortunately, this patent only showed a front view of this particular embodiment, but if this embodiment were turned around, it would probably be substantially identical to the design at issue in *Vanguard*.

²⁵² See id. at col.1–2.

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hole. 253 The Board reversed. 254 The Board determined that neither of the references shown above were proper primary references because the hole was "critical to the overall appearance and the visual effect of the card design claimed" and neither of the cited references had holes. 255 On petition for rehearing, the Board again concluded that the hole was "integral to, and cannot be disassociated from, the visual impression created by the . . . design as a whole" and, thus, both of the references the examiner had identified as primary references were "deficient" and could not support a finding of obviousness. 256 The Federal Circuit affirmed per curiam. 257

Undoubtedly, the hole is "critical to" the claimed design in the sense that it is the feature that distinguishes the design from the prior art. However, the Board clearly erred in finding that the addition of the hole destroyed the overall similarity between the claimed design and the conventional credit card designs cited by the examiner. Even with the addition of the hole, the overall silhouette and focal point²⁵⁸ (the magnetic strip) remained the same. No "major modifications"—conceptually or technically—would be required in order to convert either of the primary references into the claimed design²⁵⁹ and the addition of the hole would not "destroy fundamental characteristics of the [cited] design[s]." Therefore, the cited designs should have qualified as primary references under *Rosen* and *Harvey*.

Moreover, the addition of the hole was clearly not added "for the purpose of ornamenting." Instead, the hole was clearly added to make

 $^{^{253}}$ Vanguard I, 2009 WL 2342053, at *3.

²⁵⁴ *Id.* at *2.

 $^{^{255}}$ Id. at *3 (citing In n Rosen, 673 F.2d 388, 390–91 (C.C.P.A. 1982)).

²⁵⁶ Vanguard Identification Sys., Inc. v. Patent of Bank of Am. Corp. Patent Owner (*Vanguard II*), No. 2009-2973, 2010 WL 1064484, at *3 (B.P.A.I. Mar. 23, 2010).

²⁵⁷ Vanguard Identification Sys., Inc. v. Kappos (*Vanguard III*), 407 F. App'x 479, 480 (Fed. Cir. 2011) (per curiam).

²⁵⁸ See ZELANSKI & FISHER, supra note 208, at 320 (defining "focal point" as "[t]he area toward which the viewer's eye is most compellingly drawn in a composition").

See In re Harvey, 12 F.3d 1061, 1063 (Fed. Cir. 1993) (concluding that the cited primary reference was "not 'basically the same' as the claimed designs" because "major modifications would be required to make [the] prior art vase look like the claimed designs." (quoting In re Rosen, 673 F.2d at 391)).

See In re Rosen, 673 F.2d at 391 (concluding that the cited reference was not a proper primary reference because "[t]he modifications of [that reference] necessary to achieve appellant's table design would destroy fundamental characteristics of the [cited] design").

One leading commentator has interpreted *Rosen*'s "basically the same" requirement as "mean[ing] that the primary prior art or *Rosen* reference in a §103 design case needs to illustrate perhaps 75–80% of the patented design." Saidman, *supra* note 242, at 419. The cited references in *Vanguard* clearly would pass this 75–80% similarity test.

²⁶² See In re Carletti, 328 F.2d 1020, 1022 (C.C.P.A. 1964).

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the credit card more useful by allowing it to be attached to a key ring, as shown in this commercial embodiment ²⁶³:



In other words, the creation of this design did not require—or clearly involve—any visual invention.

In these types of cases, a strict requirement of sameness between the claimed design and the primary reference subverts—rather than promotes—the purpose of § 103. The Supreme Court has stated that the nonobviousness requirement is meant to "weed[] out those inventions which would not be . . . devised but for the inducement of a patent." Companies hardly need an incentive to make existing designs a little more useful and they certainly do not need a *design* patent incentive to do so. Such designs, which are essentially "utility models in disguise," are exactly the type of designs that § 103 should be "weeding out." However, the strict approach used by the Board—and affirmed by the Federal Circuit—in *Vanguard* would not weed these designs out. Instead, it would tend to provide them with an impregnable safe harbor. Therefore, the overly strict approach used in *Vanguard* should be rejected, especially in cases where the contribution made by the designer is clearly a functional—not an aesthetic—one.

²⁶³ See Mini Card, BANK OF AM., http://www.bankofamerica.com/creditcards/index.cfm?template=cc_features_minicard; U.S. Des. Patent No. D467,247 S (filed May 11, 2001) (showing an assignment to Bank of America Corporation).

²⁶⁴ See Graham v. John Deere Co., 383 U.S. 1, 11 (1966).

There is also no reason to believe that the availability of design patent protection for such designs would accelerate their creation by a substantial period of time. *See* Michael Abramowicz & John F. Duffy, *The Inducement Standard of Patentability*, 120 YALE L.J. 1590, 1599, 1627 (2011) ("*Graham*'s inducement standard is best interpreted as requiring patents to cover only those inventions that, but for the inducement of a patent, would not have be[en] disclosed or devised for a substantial period of time.").

See J.H. Reichman, Design Protection and the New Technologies: The United States Experience in a Transnational Perspective, 19 U. Balt. L. Rev. 6, 45 (1989–1990). And see generally Mark D. Janis, Second Tier Patent Protection, 40 Harv. Int'l L.J. 151 (1999) (explaining the concept of utility models and other "second tier patent" regimes).

⁶⁷ See Graham, 383 U.S. at 11.

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3. Modifying Primary References

As discussed above, the Federal Circuit's current rules for modifying primary references are, at best, unclear. For example, it is well established that "[o]nce the primary reference is found, other 'secondary' references may be used to modify it to create a design that has the same overall visual appearance as the claimed design" if those references are "so related [to the primary reference] that the appearance of certain ornamental features in one would suggest the application of those features to the other."²⁶⁸ However, while this language is well established, its meaning is not. Additionally, the Federal Circuit has repeatedly stated that the prior art references themselves must "suggest[] the overall appearance of the claimed design" in order to support a finding of obviousness.²⁷⁰ This strict reliance on written disclosures, which does not allow for consideration of common sense or the particularities of design, cannot stand under KSR.²⁷

Therefore, the Federal Circuit's rules for modifying primary references—using secondary references or otherwise—should be abandoned and new rules should be developed that more logically address the issue of when it would be obvious to modify an existing design in a particular way.

If a designer is actually engaged in visual invention—that is, if he is consciously trying to make a particular product look better-there are few obvious solutions. However, there are some basic changes that a designer could make to any existing design that could be considered obvious changes to an existing design, specifically:

- (1) Changing only the color;
- (2) Changing only the material;
- (3) Scaling the whole design up or down; and
- (4) Changing the orientation, scale, or frequency of a pattern.

These are very basic changes that require minimal aesthetic conception; therefore, they should be considered within the realm of ordinary creativity. ²⁷² So if a design exhibits only one of these changes, without more, it should not be patentable under § 103, regardless of whether any

Titan Tire Corp. v. Case New Holland, Inc., 566 F.3d 1372, 1381 (Fed. Cir. 2009) (alteration in original) (internal quotation marks omitted) (quoting Durling v. Spectrum Furniture Co., 101 F.3d 100, 103 (Fed. Cir. 1996)).

See Mueller & Brean, supra note 8, at 545-46 (describing the "so related" test as "vague and nonsensical").

E.g., In re Cho, 813 F.2d 378, 382 (Fed. Cir. 1987).

 $^{^{271}}$ See KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 419 (2007) (rejecting an "overemphasis on the importance of published articles and the explicit content of issued patents").

See id. at 421 ("A person of ordinary skill is also a person of ordinary creativity, not an automaton.").

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secondary reference demonstrates or in some way "teaches" such a modification. ²⁷³

In cases where a designer has gone beyond simply making such basic visual changes, the person asserting that the design is obvious should still be required to provide evidence that an ordinary designer would have been motivated to modify the primary reference in the manner shown in the claimed design. However, the Federal Circuit's rules regarding this TSM-type approach need to be changed in at least two important respects.

First, contrary to the Federal Circuit's suggestion in cases such as *Borden*, it should be recognized that the mere presence of a design feature in articles of the same type does not provide the requisite "suggestion."²⁷⁴ Such evidence would prove only that it was possible to use that feature, not that it was obvious to do so. For example, the mere fact that a certain style of decorative leg design had been used in the past for chairs does not mean that it would be obvious to use that particular leg on a particular new chair design. Especially in a crowded field where there are multiple existing leg designs that a chair designer could use, "it would have taken more than common sense and knowledge of the prior art" to select one of the pre-existing options to incorporate into a new and distinctive overall chair design.

Second, contrary to the statements made by the Federal Circuit in *Cho*, factfinders should be allowed to consider evidence of non-aesthetic motivations to modify.²⁷⁶ If the designer's only contribution—that is, if the only difference between the new design and the primary reference—is one that makes the product more useful, that fact should be considered evidence that the resulting design was obvious. Likewise, if a producer implements a new, more efficient manufacturing process that produces a slightly different product appearance as a byproduct of the new process, that too should be evidence of obviousness.²⁷⁷ Taking these

This is consistent with a number of cases from the pre-Federal Circuit era in which courts repeatedly concluded that designs were not patentable where the designer's only contribution was to make one of these changes. *See supra* notes 53–57 and accompanying text; *see also* Hawley Prods. Co. v. U.S. Trunk Co., Inc., 259 F.2d 69, 73 (1st Cir. 1958) (concluding that "no exercise of the faculty of invention would be involved in giving the bands [on a suitcase] brightness and contrasting color to make them conspicuous"); *In re* Nalbandian, 661 F.2d 1214, 1215 (C.C.P.A. 1981) (finding that a tweezer design was obvious where the designer merely changed the orientation of a stripe-like pattern on one portion of the handle).

See In re Borden, 90 F.3d 1570, 1575 (Fed. Cir. 1996) (suggesting that the use of a similar feature in a similar product in the past is sufficient to demonstrate the requisite "suggestion").

²⁷⁵ *Cf.* Lucent Techs., Inc. v. Gateway, Inc., 537 F. Supp. 2d 1095, 1102 (S.D. Cal. 2008) (internal quotation marks omitted).

²⁷⁶ See In re Cho, 813 F.2d 378, 382 (Fed. Cir. 1987) (suggesting that it was inappropriate for the examiner to consider non-aesthetic motivations to modify).

²⁷⁷ See, e.g., Westinghouse Elec. & Mfg. Co. v. Triumph Elec. Co., 97 F. 99, 100, 103 (6th Cir. 1899) (concluding that a design for the "configuration of a frame for

types of utilitarian motivations into consideration would not, as suggested by Cho, improperly treat design patents as utility patents.²⁷⁸ Instead, it would ensure that the § 103 inquiry serves its purpose of "weeding out those inventions which would not be disclosed or devised but for the inducement of a patent."²⁷⁹ In both of these types of cases, an ordinary designer would be motivated to create the new design without the inducement of a design patent because producers already have ample incentives to make their products—and manufacturing processes incrementally better.²⁸⁰

Furthermore, granting design patents in such situations would not promote the progress of the decorative arts. Even if the slightly more useful design has some incidental aesthetic value, its contribution would be minimal because, in order to reach this step of the analysis, there would have to be some existing product of the same type with "basically the same" appearance.²⁸¹ Granting design patent protection in these types of cases could actually retard—rather than promote—the progress of the decorative arts by increasing entry costs for producers of new designs.

4. Secondary Considerations

a. Commercial Success and Copying

Commentators have generally been critical of the Federal Circuit's increased emphasis on evidence of commercial success.²⁸² Many of these critiques, though made in discussions of utility patents, are equally applicable to design patents. A commercial embodiment of a design might be commercially successful for any number of reasons, including effective marketing²⁸³ or because its producer has other "assets that contribute to a firm's innovational success, such as a superior distribution system, a uniquely effective organizational structure, or access to more

electric machines" lacked the requisite "inventive genius" where the only difference between the claimed design and the prior art resulted from an improvement in the manufacturing process).

- ²⁷⁸ See In re Cho, 813 F.2d at 382.
- $^{\tiny 279}$ $\,$ See Graham v. John Deere Co., 383 U.S. 1, 11 (1966).
- ²⁸⁰ Additionally, it seems unlikely that firms would make such improvements significantly more quickly if they had a design patent incentive to do so. See supra note 265.
- Additionally, any such incidental aesthetic appeal could, in such cases, be said to have been "discovered" instead of "invented," and thus would not be eligible for design patent protection. See supra note 26.
- See, e.g., Doug Lichtman & Mark A. Lemley, Rethinking Patent Law's Presumption of Validity, 60 STAN. L. REV. 45, 56 n.29 (2007) ("With the exception of Dreyfuss, the commentators cited are critical of the commercial success factor as evidence of nonobviousness, though they agree that other factors are important." (citing generally, inter alia, Merges, supra note 5, and Rochelle Cooper Dreyfuss, The Federal Circuit: A Case Study in Specialized Courts, 64 N.Y.U. L. REV. 1 (1989)); see also LANDES & POSNER, supra note 240, at 305 ("Courts cannot readily disentangle the contribution of the invention to the commercial success that attends its marketing.").
 - See Kitch, supra note 41, at 332.

capital."²⁸⁴ Therefore, as the Federal Circuit recognized in *Litton*, the mere fact that a product embodying a design patent is successful does not necessarily mean that it is successful because of the design.²⁸⁵

But even if "the commercial success [of a product] is attributable to the design,"²⁸⁶ it does not necessarily follow that the design was appealing because it was not obvious.²⁸⁷ When it comes to aesthetics, consumers often prefer the familiar to the avant garde.²⁸⁸ Thus, even evidence that passes the *Litton* test is not necessarily probative of the ultimate issue of nonobviousness. Additionally, as discussed above, in the design context, evidence of copying is likely more probative on the issue of commercial success than it is on the issue of innovation.²⁸⁹

Therefore, neither commercial success nor copying should be considered to be evidence of design patent nonobviousness. If, however, the Federal Circuit insists on retaining these considerations in the context of designs, the design patent owner should bear the burden of proof on causation before relying on such evidence. Specifically, a design patent owner seeking to rely upon evidence of commercial success should have to go beyond the *Litton* test and prove not only that the success (or copying) is due to the design, but that the design was successful because the design was visually innovative. ²⁹⁰ Although this would be a high burden, it is not an undue one in light of the difficulties discussed above.

b. Long-Felt Need and Failure of Others

In the utility patent context, it has been argued that evidence of long-felt need and failure of others to solve the same problem may be

²⁸⁴ See Merges, supra note 5, at 861 ("A success-oriented standard of patentability... tends to reward nontechnological assets that contribute to a firm's innovational success, such as a superior distribution system, a uniquely effective organizational structure, or access to more capital.").

See Litton Sys., Inc. v. Whirlpool Corp., 728 F.2d 1423, 1443 (Fed. Cir. 1984), overruled in part on other grounds by Two Pesos Inc. v. Taco Cabana, 505 U.S. 763 (1992), and abrogated in part on other grounds by Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 671 (Fed. Cir. 2008) (en banc).

²⁸⁶ Litton Sys., Inc., 728 F.2d at 1443.

For example, a design that imitates traditional styles at a lower price point may be very successful, but not innovative. *See, e.g.*, Bush Indus., Inc. v. O'Sullivan Indus., Inc., 772 F. Supp. 1442, 1456 (D. Del. 1991) ("Here, many of the closest prior art examples are traditionally styled setup pieces.... In competing against such traditionally designed setup furniture, however, the success of Bush's models is due to their vastly lower prices, and not to the aesthetics of their designs.").

²⁸⁸ See generally RAYMOND LOEWY, NEVER LEAVE WELL ENOUGH ALONE 277–78 (2002) (explaining that the most advanced designs are not always bestselling designs because consumers are often resistant to aesthetic departures that stray too far "from what they have been conditioned into accepting as the norm").

²⁸⁹ See generally In re Rosen, 673 F.2d 388, 391 n.6 (C.C.P.A. 1982).

²⁹⁰ But see Litton Sys., Inc., 728 F.2d at 1443.

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valuable indicators of nonobviousness.²⁹¹ However, these factors have little meaning in the context of designs. Because the designer's problem is open-ended, it is hard to imagine how evidence would show a long-felt "need" for a given solution or how others could "fail" in any measurable, objective sense. Although there may be rare cases where there is some type of evidence indicating that a designer has found a particular aesthetic solution that has eluded others, these factors are unlikely to play a meaningful role in the majority of design patent cases.

c. Industry Praise

It has also been argued in the utility patent context that "professional approval provides direct (though not conclusive) evidence that the invention is perceived by . . . experts . . . as a significant contribution." It has also been suggested, in the design patent context, that "if the product has won any tradeshow awards for its design this might be strong evidence of nonobviousness."

However, because "[i]ndustry praise must also be linked to the patented invention,"²⁹⁴ a more nuanced approach is needed to evaluate the relevance and weight of evidence of industrial design awards or other forms of praise. Design patents protect only one aspect of industrial design—the ornamental appearance of products.²⁹⁵ Therefore, praise from industrial designers will not always be linked to the patented invention. A product may receive awards or industry praise for its ornamental aspects, but it might also be praised for attributes such as energy efficiency, market performance, or sustainability.²⁹⁶

For example, the Industrial Designers Society of America (IDSA) listed seven separate criteria for judging its "Design of the Decade" contest, only one of which was "[v]isual appeal and appropriate aesthetics." The overall winner of that contest was Target's ClearRx® prescription medication bottle design, ²⁹⁸ a design that has been praised mainly—though not exclusively—for its utilitarian innovations. ²⁹⁹ If, in a

 $^{^{291}}$ See, e.g., Gregory Mandel, The Non-Obvious Problem: How the Indeterminate Nonobviousness Standard Produces Excessive Patent Grants, 42 U.C. Davis L. Rev. 57, 79 (2008).

See Darrow, supra note 203, at 86.

²⁹³ Du Mont, *supra* note 8, at 599 n.408.

 $^{^{\}rm 294}$ Geo M. Martin Co. v. Alliance Mach. Sys. Int'l LLC, 618 F.3d 1294, 1305 (Fed. Cir. 2010).

See supra note 17.

²⁹⁶ See IDSA Design of the Decade: Categories & Judging Criteria, IDSA (July 21, 2010), http://www.idsa.org/content/content1/categories-judging-criteria.

²⁹⁷ See id. (also including a separate category of "[i]nnovation," including design innovation).

²⁹⁸ Target Corp.'s ClearRx Earns Design of the Decade, IDSA (Dec. 8, 2010), http://www.idsa.org/content/content1/target-corp%E2%80%99s-clearrx-earns-design-decade.

²⁹⁹ See, e.g., Sarah Bernard, The Perfect Prescription: How the Pill Bottle Was Remade—Sensibly and Beautifully, NEW YORK, May 21, 2005, available at

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hypothetical future case, Target tried to offer evidence of industry praise for these utilitarian innovations, that evidence would not be relevant to the merits of the claimed invention. However, if the praise addressed the aesthetic value of—or successful integration of aesthetic considerations into—the design, that would be relevant.

d. Simultaneous Invention

In the utility patent context, commentators have argued that evidence of simultaneous invention should be given greater weight in the § 103 analysis. 300 In the design patent context, evidence of simultaneous invention would also be a strong indicator of obviousness. 301 However, in the utility patent context, "[t]he issue of simultaneous invention is directly tied to the knowledge of one skilled in the art." In the design patent context, by contrast, evidence of simultaneous development is more likely to indicate that "some exogenous shock" has given a particular design value and, thus, that no design patent incentive was needed to induce the creation of that design. ³⁰³ For example, the nearsimultaneous invention of several souvenirs in the shape of the 1876 Centennial Exhibition's Memorial Hall³⁰⁴ does not necessarily indicate that making trinkets in the shape of Memorial Hall was within the skill or knowledge of ordinary designers. However, it does suggest that an exogenous shock—namely, the Centennial Exhibition—made that particular design an obvious one for souvenirs.

B. Benefits of Proposed Analysis

This proposed approach offers a number of benefits as compared to the Federal Circuit's current test. ³⁰⁵ The Federal Circuit's current test is

http://nymag.com/nymetro/health/features/11700/. Notably, the ClearRx® bottle design (or portions of it) is already the subject of at least two issued utility patents and two allowed utility patent applications, in addition to four issued design patents. See U.S. Patent No. 7,661,533 B2 (filed Sep. 27, 2007); U.S. Patent No. 7,311,205 B2 (filed Jan. 25, 2005); U.S. Patent Application No. 11/042,739 (filed Jan. 25, 2005); U.S. Patent Application No. 11/042,849 (filed Jan. 25, 2005); U.S. Des. Patent No. D597,841 S (filed Oct. 16, 2008); U.S. Des. Patent No. D594,336 S (filed Mar. 29, 2007); U.S. Des. Patent No. D583,242 S (filed Apr. 2, 2007); U.S. Des. Patent No. D542,661 S (filed Jan. 25, 2005).

- 300 See, e.g., John F. Duffy, A Timing Approach to Patentability, 12 Lewis & Clark L. Rev. 343, 374 (2008).
 - Landes & Posner, *supra* note 240, at 304.
 - ³⁰² Callpod, Inc. v. GN Netcom, Inc., 703 F. Supp. 2d 815, 832 (N.D. Ill. 2010).
 - ³⁰³ See Landes & Posner, supra note 240, at 304.
 - ³⁰⁴ See Bennage v. Phillippi, supra note 235, at 288.
- This Article will not compare the approach suggested here to the approach suggested by Mueller and Brean because, as discussed *supra* at note 9, their proposals are based on an interpretation of § 103 that would essentially read the nonobviousness requirement out of the statute. *See* Mueller & Brean, *supra* note 8, at 544. Therefore, it is not possible to meaningfully compare their approach to the approach suggested here without discussing the larger issue raised by Mueller and

unclear and, in some respects, "nonsensical." It thus provides little helpful guidance to district courts and is not amenable to consistent application. The approach proposed here would add greater logical and analytical clarity to an exceedingly murky area of patent doctrine, thus allowing for greater consistency in the application of § 103 to designs. Of course, this approach "would not remove all indeterminacy" from the application of § 103 to designs, but "[n]o 'expansive and flexible approach' ever could." **

Moreover, the Federal Circuit's current test is not reasonably calculated to serve the policy goals of either § 103 or design patents. As John Duffy has noted, "[p]atent law's 'obviousness' doctrine . . . is generally understood as trying to exclude from patentability those innovations that would have been created and disclosed even without the inducement of patent rights." The Federal Circuit's current test for design patent nonobviousness does not serve this or any other discernible policy goal. The current test is neither thoughtfully conceived nor well suited to "weed[] out those inventions which would not be . . . devised but for the inducement of a patent." The approach proposed here, by contrast, is designed to further this policy goal by excluding designs that would have been produced even without a *design* patent incentive.

The approach proposed here is also better calculated "to give encouragement to the decorative arts." Because it retains the primary reference requirement in most cases, this approach will allow most creative designs to pass the § 103 bar easily. However, it will bar designs that clearly lack any visual invention, thus barring most "utility models in

Brean—namely, whether the nonobviousness requirement should apply to design patents at all—an issue which is beyond the scope of this Article.

See Mueller & Brean, supra note 8, at 545–46 (aptly characterizing "the Glavas test requiring that references be 'so related' as to 'suggest' the combination of design features" as "vague and nonsensical" (quoting In re Glavas, 230 F.2d 447, 450 (C.C.P.A. 1956)).

³⁰⁷ *Cf.* Duffy, *supra* note 300, at 343 ("An ideal test of obviousness would both serve [the] overarching policy goal and be sufficiently definite and clear that the doctrine could be applied with consistency.").

See Mandel, supra note 291, at 126.

³⁰⁹ Duffy, *supra* note 300, at 343.

Perhaps this is not surprising in light of the fact that design patent law suffers from "a dearth of theory." *See* Crouch, *supra* note 2, at 2. Additionally, while there is a well-developed literature of the economics of technical/functional innovation, the economics of aesthetic innovation has "largely been ignored" until recently. *See* STONEMAN, *supra* note 23, at 1.

 $[\]ensuremath{^{311}}$ See Graham v. John Deere Co., 383 U.S. 1, 11 (1966) (internal quotation marks omitted).

See supra notes 279–280 and accompanying text.

³¹³ Gorham Co. v. White, 81 U.S. (14 Wall.) 511, 524 (1872).

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disguise"³¹⁴ from cluttering their respective product fields and creating unnecessary barriers to entry.³¹⁵

V. CONCLUSION

Historically, both courts and commentators have struggled with how to apply § 103 to designs. This Article has identified a number of problems with the Federal Circuit's current test for nonobviousness in the context of designs and proposed a number of changes, arguing that:

- The scope of the prior art should be limited to designs for products of the same type of product.
- The primary reference requirement should be retained as a
 general rule; however, it should be recognized that in some
 cases, there may be compelling evidence of obviousness even
 without a primary reference, e.g., where there is evidence of
 simultaneous invention or a relevant industry custom.
- When considering whether modifications to a primary reference would have been obvious:
 - o Certain basic changes to existing designs, such as changing only the color or material, should be considered to be within the realm of ordinary creativity.
 - The mere fact that a particular design feature has been used in articles of the same type should not be deemed sufficient to show "suggestion" under the Federal Circuit's TSM test.
 - o Courts and examiners should be allowed to consider non-aesthetic motivations to modify existing designs.
- Regarding the secondary factors:
 - o Neither commercial success nor copying should be considered as evidence that a design was nonobvious.
 - o Because design patents protect only one aspect of industrial design, not all industry praise should be given the same weight. Specifically, in considering the relevance of evidence of industry praise, courts and examiners should look closely at which element—or elements—of the design are being praised.

requirements, such as ornamentality.

See Reichman, supra note 266, at 45.

This is not to say that this test will, standing alone, produce an optimal level of design innovation—or that it needs to do so. For example, the ornamentality requirement could be tailored to adjust the overall level of protection. Indeed, for pioneering products—those that create new product genres or sub-genres—there may be no designs that would have been obvious *ex ante*. But that does not necessarily mean that all such designs should be protected. *See generally* Russell, *supra* note 27, at 99 ("Only when systems are no longer novel can they consciously be 'designed."). Any limits on the protectability of such products would have to come from other

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These proposals would ameliorate the problems with the current Federal Circuit test discussed above. They would also bring greater clarity to an unusually murky area of Federal Circuit case law. This approach would also promote the policy goals the Supreme Court has enunciated for design patents and for the nonobviousness requirement by providing protection for most creative product designs, while withholding protection from designs that clearly are not the result of visual invention.