

THE DEMISE OF THE FUNCTIONALITY DOCTRINE IN DESIGN PATENT LAW

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INTRODUCTION

The so-called doctrine of functionality arises in both design patent validity and infringement analyses. Broadly stated, the doctrine seeks to ensure that design patents do not monopolize that which should only be monopolized with utility patents.¹ In general, a utility patent protects utilitarian concepts embodied in a product, while a design patent protects only the specific visual embodiment of such concepts, i.e., the product’s appearance.²

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1 DONALD S. CHISUM, CHISUM ON PATENTS § 23.03[4] (2006).

2 *Id.* § 23.01.

In establishing the scope of a design patent during *Markman* claim construction,³ the functionality doctrine has proven to be unworkable—and is in fact unnecessary—as a precursor to determining infringement. In considering design patent validity, the so-called doctrine of functionality no longer plays any meaningful role.

On the infringement side, lower courts during *Markman* have rather consistently tried to “factor out” elements of the design that appear to be “functional,” a meaningless exercise that if pursued to its natural end will wind up with a claim to nothing.⁴ Recent decisions from the Federal Circuit have recognized this reality.⁵ Concerns about claimed utilitarian features that may comprise an industry standard or an essential component are taken into account during normal infringement analysis.

On the validity side, the lower courts remain somewhat confused as to how to determine whether a claimed design is impermissibly “functional.” Most courts lose sight of the fact that a design can both have utilitarian features and also have an overall appearance that is protectable. Currently, the go-to validity test for functionality is whether there are alternative designs to the one claimed in the design patent-in-suit that perform substantially the same function; if there are, the design patent is said not to monopolize that function.⁶ Recent Federal Circuit cases affirm the primacy of the alternative designs test, but omit analysis of the critically important and outcome-determinative word: “function.”⁷ This Essay will explore ramifications of the definition of “function.”

There have been significant developments since my earlier article⁸ on design patent functionality. This Essay will discuss these developments, and present my perhaps startling conclusion: the doctrine of functionality, in both the validity and infringement contexts, has outlived its usefulness, and analyzing it is a waste of litigants’ and judicial resources.⁹

I. LANGUAGE MATTERS

One problem that runs throughout the cases is the confusing use of the words “ornamental” and “functional.” The former is a requirement for a

3 See generally *Markman v. Westview Instruments Inc.*, 517 U.S. 370 (1996) (establishing that patent claims must be construed as a matter of law prior to a jury trial in an infringement case).

4 See, e.g., *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293 (Fed. Cir. 2010).

5 See, e.g., *Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316 (Fed. Cir. 2016).

6 See, e.g., *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1566 (Fed. Cir. 1996).

7 See, e.g., *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1329–30 (Fed. Cir. 2015).

8 Perry J. Saidman, *Functionality and Design Patent Validity and Infringement*, 91 J. PAT. & TRADEMARK OFF. SOC’Y 313 (2009).

9 An earlier version of the thesis of this Essay was presented by the author at Design Law 2014, George Washington University Law School (Nov. 21, 2014).

design to constitute statutory subject matter under 35 U.S.C. § 171,¹⁰ while the latter is a creation of the caselaw.¹¹

It is challenging to understand what these terms mean when using them to define each other. It is not helpful, for example, to say that a design that is functional is not ornamental, or that a design that is ornamental is not functional.

The word “functional” in particular is problematic because it has two meanings. It can mean either de facto functional, i.e., a design or element that performs a function, or de jure functional, i.e., a design that is impermissibly legally functional.¹² Courts tend to use both meanings interchangeably, which has led to quite a bit of confusion.

The same is true for the word “ornamental.” Since it is a statutory requirement, it is not helpful to say things such as “the overall ornamental appearance of the claimed design,” and similar phrases that are frequently found in the caselaw.¹³

In an attempt to address these difficulties, wherever possible in this Essay the word “appearance” will be used rather than “ornamental” in instances other than where de jure ornamental is meant. Likewise, the word “utilitarian” shall be used rather than “functional” to connote de facto functional features in instances other than where de jure functional is meant. Of course, no quotes from the caselaw will be altered.

II. FUNCTIONALITY AND INFRINGEMENT

A. Egyptian Goddess

The seminal 2008 *Egyptian Goddess* decision¹⁴ had a profound effect on the test for design patent infringement, particularly on how the scope of a design patent claim is determined during *Markman* claim construction, as well as on the subsequent comparison of the construed design patent claim to the accused product when conducting the test for infringement.

1. *Markman* Claim Construction

One of the questions presented for en banc review in the *Egyptian Goddess* case was whether claim construction should apply to design patents and, if so, what role it should play in the infringement analysis.¹⁵

10 35 U.S.C. § 171 (2012) (“Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor . . .”).

11 See Saidman, *supra* note 8, at 317–18.

12 See *In re Morton-Norwich Prods., Inc.*, 671 F.2d 1332, 1337 (C.C.P.A. 1982) (recognizing this language difficulty and providing the de facto and de jure definitions, which very unfortunately were not adopted in subsequent court decisions).

13 See, e.g., *Elmer v. ICC Fabricating, Inc.*, 67 F.3d 1571, 1578 (Fed. Cir. 1995) (emphasis omitted).

14 *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665 (Fed. Cir. 2008) (en banc).

15 *Egyptian Goddess, Inc. v. Swisa, Inc.*, 256 F. App'x 357, 357–58 (Fed. Cir. 2007) (en banc) (per curiam).

Up until the time of that case, lower courts routinely construed design patent claims by drafting extensive verbal descriptions of what was shown in the design patent drawings.¹⁶ This greatly advantaged accused infringers.¹⁷ The Federal Circuit in *Egyptian Goddess* effectively put the practice to rest, stating: “Given the recognized difficulties entailed in trying to describe a design in words, the preferable course ordinarily will be for a district court not to attempt to ‘construe’ a design patent claim by providing a detailed verbal description of the claimed design.”¹⁸

At the same time, the court, in discussing claim construction for a design patent, stated that “a trial court can usefully guide the finder of fact by addressing a number of . . . issues that bear on the scope of the claim. Those include . . . distinguishing between those features of the claimed design that are ornamental and those that are purely functional.”¹⁹ Unfortunately, there was no guidance as to how this should be done.

2. The New Test for Infringement

In *Egyptian Goddess*, the court also dispensed with the point of novelty infringement test, which had been another refuge for accused infringers.²⁰ The court found that the sole test for determining whether a design patent has been infringed is the “ordinary observer” test of *Gorham Co. v. White*²¹:

[I]f, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other.²²

At the same time, the court also tweaked the ordinary observer test: “[T]he ordinary observer is deemed to view the differences between the patented design and the accused product *in the context of the prior art*.”²³

Thus, a comparison of the claimed design, the accused product, and the prior art became central to design patent infringement determinations.

The court provided the following guidelines on how to apply the new *Egyptian Goddess* infringement test (i.e., how to take the prior art into account). These guidelines have an indirect bearing on the doctrine of functionality, as will be discussed below.²⁴

16 See Perry J. Saidman & Allison Singh, *The Death of Gorham Co. v. White: Killing It Softly with Markman*, 86 J. PAT. & TRADEMARK OFF. SOC’Y 792, 793 (2004).

17 See *id.*

18 *Egyptian Goddess*, 543 F.3d at 679.

19 *Id.* at 680.

20 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, 407–08 (2008).

21 81 U.S. (14 Wall.) 511 (1871).

22 *Id.* at 528.

23 *Egyptian Goddess*, 543 F.3d at 676 (emphasis added).

24 See *infra* Section II.C.

- “[W]hen the claimed design is close to the prior art designs, small differences between the accused design and the claimed design are likely to be important to the eye of the hypothetical ordinary observer.”²⁵
- “If the accused design has copied a particular feature of the claimed design that departs conspicuously from the prior art, the accused design is naturally more likely to be regarded as deceptively similar to the claimed design, and thus infringing.”²⁶
- “If the claimed design consists of a combination of old features that creates an appearance deceptively similar to the accused design, even to an observer familiar with similar prior art designs, a finding of infringement would be justified.”²⁷
- “Where there are many examples of similar prior art designs . . . , differences between the claimed and accused designs that might not be noticeable in the abstract can become significant to the hypothetical ordinary observer who is conversant with the prior art.”²⁸
- “In some instances, the claimed design and the accused design will be sufficiently distinct that it will be clear without more that the patentee has not met its burden of proving the two designs would appear ‘substantially the same’ to the ordinary observer”²⁹

B. Claim Construction, Scope, and Functionality

As explored in my earlier paper, the 1992 decision of *Read Corp. v. Portec, Inc.*, is perhaps the earliest case to use the utilitarian features of a patented design as a factor in analyzing design patent infringement.³⁰ In discussing the spoon and fork handles of *Gorham Co. v. White*, the *Read* court stated:

[A]ll elements forming the claimed design were ornamental. Where this is not the case, that is, [when] a design is composed of functional as well as ornamental features, to prove infringement a patent owner must establish that an ordinary person would be deceived by reason of the common features in the claimed and accused designs which are ornamental.³¹

The *Read* case created the misbegotten notion that non-utilitarian and utilitarian features of a patented design need to be identified so that the subsequent infringement comparison occurs only between the appearance of non-utilitarian features.³²

This parsing analysis was carried forward through several cases including, as noted above, the *Egyptian Goddess* case.³³

25 *Egyptian Goddess*, 543 F.3d at 676.

26 *Id.* at 677.

27 *Id.* at 677–78.

28 *Id.* at 678.

29 *Id.* (quoting *Gorham Co. v. White*, 81 U.S. (14 Wall.) 511, 513 (1871)).

30 See Saidman, *supra* note 8, at 325–29.

31 *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 825 (Fed. Cir. 1992). This is an excellent example of the confusing use of the words “functional” and “ornamental.” See *supra* Part I.

32 See *Read*, 970 F.2d at 825–26.

33 See *Egyptian Goddess*, 543 F.3d at 665; see also *supra* subsection II.A.1.

The nadir of this thinking occurred in *Richardson v. Stanley Works, Inc.*, involving a design patent on a construction tool combining the utilitarian features of a hammerhead, crowbar, jaw, and handle.³⁴ The Federal Circuit made the following statement that created a bit of chaos in the subsequent caselaw: “The district court here properly factored out the functional aspects of Richardson’s design as part of its claim construction.”³⁵

In my 2009 article, I explored the underlying rationale of the “factoring out” exercise when analyzing infringement and concluded that it is the same as in validity analysis: you cannot use a design patent as a utility patent to protect utilitarian ideas.³⁶ This is very likely what Mr. Richardson tried to do: enforce his relatively narrow design patent claim against Stanley Works who had simply used the broad utilitarian concepts of Richardson’s product, but not its design (appearance). The use of the broad utilitarian concepts of Richardson’s claimed design by Stanley Works, and the conclusion that the latter did not infringe the former, is almost immediately apparent by simply looking at the plainly dissimilar designs:³⁷

FIGURE 1



Absent a utility patent claiming the combination of the handle, hammerhead, jaw, and crowbar, those utilitarian features are in the public domain and may be used by anyone, including Stanley Works.³⁹ The design patent law simply says that Stanley Works’ tool cannot look substantially the same in overall appearance as Richardson’s, which it did not.⁴⁰ No infringement.⁴¹ End of story.

Although the Federal Circuit came down with the right decision on infringement, its statement that “functional” features need to be factored out before determining infringement did not sit well with design patentees, and became a handy weapon for accused infringers.⁴²

34 See *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1290–91 (Fed. Cir. 2010).

35 *Id.* at 1293.

36 See Saidman, *supra* note 8, at 326–36.

37 See *Richardson*, 597 F.3d at 1291–92. These designs are sufficiently distinct such that consideration of the prior art is unnecessary. See *supra* subsection IIA.2.e.

38 *Richardson*, 597 F.3d at 1291–92.

39 See *id.* at 1293.

40 *Id.* at 1293–95.

41 *Id.* at 1296.

42 Saidman, *supra* note 8, at 328. See generally Christopher V. Carani, *Design Patent Functionality: A Sensible Solution*, 7 *LANDSLIDE* 19 (2014).

After using the unfortunate “factoring out” language, the Federal Circuit in *Richardson* correctly concluded:

By definition, the patented design is for a multi-function tool that has several functional components, and we have made clear that a design patent, unlike a utility patent, limits protection to the ornamental design of the article. If the patented design is primarily functional rather than ornamental, the patent is invalid. However, when the design also contains ornamental aspects, it is entitled to a design patent whose scope is limited to those aspects alone and does not extend to any functional elements of the claimed article. . . .

. . . .

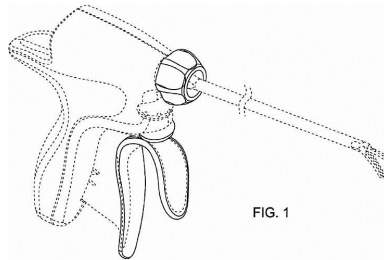
Richardson’s argument that the court erred in separating out functional aspects of his design essentially is an argument for a claim scope that includes the utilitarian elements of his multi-function tool. We agree with the district court that it would indeed be improper to allow Richardson to do so. The ’167 patent specifically claims “the ornamental design” for the multi-function tool shown in the drawings. A claim to a design containing numerous functional elements, such as here, necessarily mandates a narrow construction. Nothing in our *en banc Egyptian Goddess* opinion compels a different outcome.⁴³

C. Recent Significant Caselaw

The demise of the “factoring out” exercise has been made quite clear in recent Federal Circuit caselaw, particularly the 2015 and 2016 *Ethicon* and *Sport Dimension* cases.⁴⁴

*Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*⁴⁵ involved the design of an ultrasonic surgical device. One of the design patents at issue, D661,804, claimed the combination of three elements: a U-shaped trigger, fluted torque knob, and rounded activation button⁴⁶:

FIGURE 2



43 *Richardson*, 597 F.3d at 1293–94 (citations omitted) (first citing *Lee v. Dayton-Hudson Corp.*, 838 F.2d 1186, 1188 (Fed. Cir. 1988); and then citing *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993)). The confusing use of “functional” and “ornamental” is self-evident. See also *supra* Part I.

44 See *Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316 (Fed. Cir. 2016); *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312 (Fed. Cir. 2015).

45 796 F.3d 1312 (Fed. Cir. 2015).

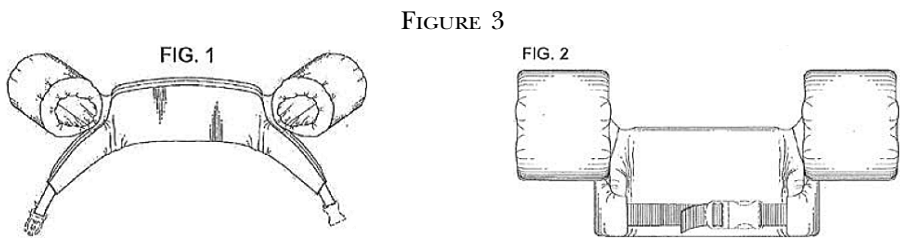
46 *Id.* at 1314, 1327.

The lower court during claim construction “factored out” each of these so-called “functional” elements, concluding therefore that the ’804 design patent covered “nothing.”⁴⁷ The Federal Circuit reversed, saying that the lower court failed to account for the particular appearance of the admittedly utilitarian elements: “the district court ignored the facts that the trigger has a particular curved design, the torque knob has a particular flat-front shape, and the activation button has a particular rounded appearance.”⁴⁸

The Federal Circuit solidified its thinking from *Richardson*, namely that it is only the broad underlying concepts that cannot be protected—i.e., need to be “factored out” of a design patent claim—in order to avoid using the design patent as a utility patent.⁴⁹ One is always left with the appearance aspects of those same utilitarian features to compare to the accused product in determining infringement.

This is a very significant analytical approach in determining the scope of a design patent claim prior to determining infringement. Namely, all utilitarian elements have a particular appearance. And no matter how visually significant the utilitarian element is, it is its particular appearance, in combination with the appearance of all other claimed elements, that is compared to the accused product in determining infringement. In other words, the appearance aspects of all claimed elements, whether utilitarian or not, are taken into account in determining infringement.

A short while later, this approach was confirmed by the Federal Circuit. *Sport Dimension, Inc. v. Coleman Co.*⁵⁰ involved a design for a flotation device that had several utilitarian features, including two armbands and a tapered torso⁵¹:



In discussing its earlier cases, the court stated⁵²:

[The functional elements of the patented design in *Richardson*] were well known in the art, and their basic design was dictated by their respective functional purposes. But there were nevertheless ornamental aspects of the design of those elements . . . [T]he [lower] court’s construction properly

47 *Id.* at 1328, 1332–33.

48 *Id.* at 1334.

49 See Saidman, *supra* note 8, at 326–36.

50 820 F.3d 1316 (Fed. Cir. 2016).

51 *Id.* at 1318.

52 One must forgive, again, the court’s confusing use of “functional” and “ornamental.” See *supra* Part I.

ensured that the claim provided protection, albeit narrow, over those aspects of the tool that were ornamental.⁵³

In discussing *Ethicon*, decided the preceding year, the *Sport Dimension* court noted: “While we agreed that certain elements of the [Ethicon] device were functional, their functionality did not preclude those elements from having protectable ornamentation.”⁵⁴

The court, using somewhat convoluted language, correctly concluded:

In *OddzOn*, *Richardson*, and *Ethicon*, we construed design patent claims so as to assist a finder of fact in distinguishing between functional and ornamental features. But in no case did we entirely eliminate a structural element from the claimed ornamental design, even though that element also served a functional purpose.⁵⁵

It cannot be overemphasized. All designs by their very nature include utilitarian features, the presence of which does not disqualify the design from being protected by a design patent. Such utilitarian features are not protected as utilitarian features. Rather, it is the design, the associated appearance, of those utilitarian features that are properly protected by a design patent and are to be compared to an accused product when analyzing infringement.

Thus, the statement in *Egyptian Goddess* that a court during claim construction could be helpful to the fact-finder by identifying “functional” features that need to be distinguished from “ornamental” features prior to determining infringement was simply a very inelegant way of saying that a design patent does not protect the utility of utilitarian features, only their particular appearance. Thus, utilitarian features do not need to be identified or “factored out” during *Markman* claim construction.

Omitting consideration of utilitarian features during claim construction, as advocated in this Essay, will not result in monopolization of the utilitarian aspects of such features, it will only result in the inability of competitors to use substantially the same appearance as the combination of claimed utilitarian features in their products.

D. Industry Standard Utilitarian Features

If a particular design is dominated by a utilitarian feature that is either an industry standard, i.e., in the prior art, or necessary for a product to operate at all, then the regular tests used to determine design patent infringement will take such concerns into account. Recall that in *Egyptian Goddess*, the Court *inter alia* provided the following guidelines⁵⁶:

53 *Sport Dimension*, 820 F.3d at 1321 (citations omitted).

54 *Id.*

55 *Id.*

56 *See supra* subsection II.A.2.

- “[W]hen the claimed design is close to the prior art designs, small differences between the accused design and the claimed design are likely to be important to the eye of the hypothetical ordinary observer.”⁵⁷
- “Where there are many examples of similar prior art designs . . . , differences between the claimed and accused designs that might not be noticeable in the abstract can become significant to the hypothetical ordinary observer who is conversant with the prior art.”⁵⁸

Since all elements of a design, whether utilitarian or not, have an associated appearance, if that appearance happens to be dominated by utilitarian elements that are industry standards, i.e., of necessity similar to prior art designs, then small differences between a claimed design and an accused product which are normally not very noticeable will become visually more significant, assuming greater importance to a hypothetical ordinary observer. In other words, if a design is dominated by an industry standard utilitarian feature, a competitor need only worry about making sure that other visual elements of his product are sufficiently different from those of the claimed design in order to avoid infringement.

Although a detailed comparison with functionality doctrines applied in the EU’s Registered Community Design regime is beyond the scope of this paper, the U.S. approach of taking functionality concerns into account—albeit indirectly—during infringement analysis is similar to the approach in Europe. As noted by one commentary, the EU’s degree of freedom rule is a good tool for dealing with functionality concerns.⁵⁹ The degree of freedom analysis essentially says that where utilitarian considerations do not leave designers with much freedom to change the appearance of a product from prior art products, then minor differences between a registered design and an accused product may be sufficient to avoid infringement.⁶⁰ In contrast, when the designer is not faced with utilitarian constraints, then the scope of the registered design is broader, such that a competitor’s product needs to be visually more different to avoid infringement. This approach in the EU is quite similar to that mandated by *Egyptian Goddess* in its infringement guidelines discussed above.

III. FUNCTIONALITY AND VALIDITY

Statutory subject matter for design patents is governed by 35 U.S.C. § 171: “Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title.”⁶¹

57 *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 676 (Fed. Cir. 2008) (en banc).

58 *Id.* at 678.

59 See Jason J. Du Mont & Mark D. Janis, *Functionality in U.S. Design Patent & Community Design Law* (Ind. Univ. Maurer Sch. of Law, Research Paper No. 342, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2773070.

60 See, e.g., Case T-41/14, *Argo Dev. & Mfg. Ltd v. Clapbanner Ltd*, 2015 E.C.R. R 981/2012-3 ¶ 37–48.

61 35 U.S.C. § 171 (2012).

In order to be patentable, therefore, a design must be “ornamental.” Today, the common understanding is that a design which is “functional” cannot be “ornamental.”⁶² Therefore, a brief exploration of the origin of these terms may be helpful.

A. *Development of “Ornamental” and “Functional”*

The first design patent statute, the 1842 Patent Act, defined the subject matter of a valid design patent to be “any new and original design for a manufacture . . . , or any new and original impression or ornament . . . , or any new and original shape or configuration of any article of manufacture.”⁶³ The meaning of the term “ornament” was therefore not the same as the meaning of the term “shape or configuration”; they were distinctly different qualities.⁶⁴

This distinction between ornament and shape/configuration of a product began to fade with the Patent Act of 1902 wherein the qualifying language to obtain a design patent was condensed from several categories of new and original designs to an “ornamental” design for an article of manufacture.⁶⁵ Significantly, the word “useful” from the 1842 Act disappeared from the 1902 Act in favor of “ornamental.”⁶⁶

When “ornamental” became a requirement for design patentability under the 1902 Act, a series of subsequent cases endeavored to define it. More often than not, it was used to connote an aesthetic quality.

Typical of these cases was *Rose Manufacturing Co. v. E. A. Whitehouse Manufacturing Co.*, where, in a case involving the design of a license plate holder, the court held that a design is ornamental if it “appeals to the aesthetic faculty of the observer.”⁶⁷

Judge Learned Hand of the Second Circuit went a bit further in holding that “ornamental” means that a design “has at least a rudimentary aesthetic appeal.”⁶⁸ Thus, the quality of being “ornamental” presented a relatively low bar for a product to qualify for a design patent.⁶⁹

62 See U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 1504.01(c) (9th ed., rev. Nov. 2015).

63 Act of August 29, 1842, ch. 263, § 3, 5 Stat. 543, 543–44.

64 See *Gorham Co. v. White*, 81 U.S. (41 Wall.) 511, 525 (1871) (Designs patentable include “a new or original . . . ornament to be placed on any article of manufacture . . . or a new and original shape or configuration of any article of manufacture—it is one or all of these that the law has in view.”).

65 See Act of May 9, 1902, ch. 783, 32 Stat. 193.

66 Compare § 3, 5 Stat. at 543–44, with 32 Stat. at 193 (amending Revised Statutes, tit. LX, ch. 1, § 4929 (1874)).

67 201 F. 926, 929 (D.N.J. 1913) (first citing *Rowe v. Blodgett & Clapp Co.*, 112 F. 61 (2d Cir. 1901) (per curiam); and then citing *Williams Calk Co. v. Kemmerer*, 145 F. 928 (3d Cir. 1906)); see also *Majestic Elec. Dev. Co. v. Westinghouse Elec. & Mfg. Co.*, 276 F. 676 (9th Cir. 1921).

68 *H.C. White Co. v. Morton E. Converse & Son Co.*, 20 F.2d 311, 312 (2d Cir. 1927).

69 This is similar to the standard for determining whether a work is sufficiently “original” to qualify for copyright protection: “[T]he originality requirement [in copyright law]

Other cases attempted to evaluate the aesthetic qualities of a product design, and some began to compare it to the product's utilitarian qualities.

There is no evidence that [the] form [of the product] appeals in any way to the eye, or serves to commend it to purchasers and users as a thing of beauty. There is not a scintilla of evidence that the sale of a single [product] was ever induced by reason of any attractiveness in its appearance. Functional utility entitled the patentee to the mechanical patent already discussed, but mere functional utility did not entitle him to a design patent for the same article.⁷⁰

Over the years it has been recognized that when it comes to designs, courts are rather poor arbiters of aesthetic qualities.⁷¹

A 1920 case involving the design for a wall-mounted holder for soap articulated an early rationale for the functionality doctrine. “[T]he same device or article may exhibit patentable mechanical invention and a patentable design; but it is not true that the design can ever be used to appropriate (per se) the mechanical function.”⁷²

The caselaw began to develop the notion that a design that was “functional” was not “ornamental” and thus not entitled to a design patent. “The appearance of the patent in suit is due to functional features entirely and does not amount to patentable ornamental design.”⁷³

The terms “ornamental” and “functional” became opposite sides of the same coin.⁷⁴

is not particularly stringent.” *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 358 (1991). The work must possess “at least some minimal degree of creativity.” *Id.* at 345. The “creativity” element sets an extremely low bar that is cleared quite easily. It requires only that a work “possess some creative spark, ‘no matter how crude, humble or obvious’ it might be.” *Id.* (quoting 1 M. NIMMER & D. NIMMER, COPYRIGHT § 1.08[C][1] (1990)).

70 *Williams v. Syracuse & S.R. Co.*, 161 F. 571, 574 (C.C.N.D.N.Y. 1908) (quoting *Bradley v. Eccles*, 126 F. 945, 949 (2d Cir. 1903)).

71 *See* GRAEME B. DINWOODIE & MARK D. JANIS, TRADE DRESS AND DESIGN LAW 316–18 (2010) (contrasting copyrights and industrial designs by writing: “design patents are concerned with the industrial arts, not the fine arts” (quoting *Contico Int’l, Inc. v. Rubbermaid Commercial Prods., Inc.*, 665 F.2d 820, 825 (8th Cir. 1981))). The *Contico* court continued: “Perhaps it is too much to expect that a trash-can dolly be beautiful. It is enough for present purposes that it is not ugly, especially when compared to prior designs.” *Contico*, 665 F.2d at 825.

72 *Baker v. Hughes-Evans Co.*, 270 F. 97, 99 (2d Cir. 1920).

73 *Heyer v. Allen Elec. & Equip. Co.*, 37 F. Supp. 455, 457 (W.D. Mich. 1939), *aff’d*, 117 F.2d 739 (6th Cir. 1941) (mem.).

74 *See* *Circle S Prods. Co. v. Powell Prods., Inc.*, 174 F.2d 562, 564 (7th Cir. 1949) (“It has been held that a design patent cannot properly be obtained on the shape of a device which necessarily results from its mechanical parts.”); *id.* (“[I]ts shape and configuration are dictated by mechanical and functional requirements rather than those of design.”); *Smith v. Dental Prods. Co.*, 140 F.2d 140, 153 (7th Cir. 1944) (“It was certainly not the intent of the law to grant monopoly to purely conventional design which is in itself little more than a necessary response to the purpose of the article designed.” (quoting *Applied Arts Corp. v. Grand Rapids Metalcraft Corp.*, 67 F.2d 428, 430 (6th Cir. 1933))); *Conn. Paper Prods., Inc. v. N.Y. Paper Co.*, 39 F. Supp. 127, 134 (D. Md. 1941) (“It is well settled

The stated policy underlying the doctrine of functionality was to draw a bright line between protectable designs and those which impermissibly monopolize the utilitarian features of the design.⁷⁵

This generally accepted policy did not translate immediately into any coherent analytic framework. Some cases said that if a design was “primarily functional” rather than “primarily ornamental,” it did not qualify for design patent protection.⁷⁶ But there was no guidance on how to determine what was “primarily functional” and what was “primarily ornamental.” Other cases said that a claimed design that was “dictated by function,” “dictated by functional considerations,” or “solely dictated by function” was invalid, although again there was little guidance on how to apply those tests.⁷⁷

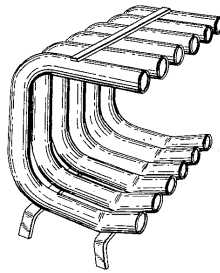
The Supreme Court, specifically addressing design patents, albeit in dicta, agreed: “To qualify for protection, a design must present an aesthetically pleasing appearance that is not dictated by function alone.”⁷⁸

B. *The Alternative Designs Test*

In developing the needed guidance to determine whether a design was “ornamental” or “functional,” several courts latched onto the notion that if a claimed design can be shown to have alternative designs that perform substantially the same function, it was evidence that the claimed design was not monopolizing that function, and therefore “ornamental.”

One of the earliest cases to adopt this methodology was *Bergstrom v. Sears, Roebuck & Co.*,⁷⁹ involving a design patent for a fireplace grate.⁸⁰

FIGURE 4



that design patents should issue only upon ornamental or aesthetic features of a device, and cannot dominate functional or utilitarian features. That is to say, when a design differs from the prior art merely through the addition of some feature placed there for purely functional purposes, such design is not patentable.”), *aff'd in part and rev'd in part*, 127 F.2d 423 (4th Cir. 1942).

⁷⁵ See CHISUM, *supra* note 1, § 23.03[4].

⁷⁶ See, e.g., *Power Controls Corp. v. Hybrinetics, Inc.*, 806 F.2d 234, 239 (Fed. Cir. 1986).

⁷⁷ See Perry J. Saidman & John M. Hintz, *The Doctrine of Functionality in Design Patent Cases*, 19 U. BALT. L. REV. 352, 353–55 (1989).

⁷⁸ *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 148 (1989).

⁷⁹ 496 F. Supp. 476 (D. Minn. 1980).

⁸⁰ *Id.* at 489.

The court said:

The evidence undeniably establishes that there are numerous possible design solutions for tubular fireplace grates which operate on convective heat principles.

. . . Considerations of function may very well dictate the general “C” shape of the tubular fireplace grate. This does not mean that functional objectives invariably dictate the configuration found in the Bergstrom design, or that any tubular fireplace grate operating on convective heat principles will look the same. . . . The myriad of alternatives in terms of the appearance of fireplace grate designs, and the variables which exist in terms of the elements which comprise the overall design, compel the conclusion that the Bergstrom patent is not invalid for functionality.⁸¹

There was also recognition by the courts that just because a design performed a function did not disqualify it for design patent protection.⁸²

While it is true that Butler’s design embodies some functional features, that fact alone does not make the design unpatentable. Here the court finds that the Butler design patent is not dictated solely by function. Other designs could easily fulfill the same function. The evidence at trial of Mr. Kostanecki and Dr. Porter established to the court’s satisfaction that there were a variety of alternative designs available which would have fulfilled the same function as Butler’s design patent.⁸³

The Federal Circuit ran with a pair of sneaker cases both to affirm that all industrial designs have utilitarian features and to adopt the alternative designs test. In the 1988 seminal decision of *Avia Group International, Inc. v. L.A. Gear California, Inc.*,⁸⁴ the court said:

There is no dispute that shoes are functional and that certain features of the shoe designs in issue perform functions. However, a distinction exists between the functionality of an article or features thereof and the functionality of the particular design of such article or features thereof that perform a function. Were that not true, it would not be possible to obtain a design patent on a utilitarian article of manufacture.

. . . “If the functional aspect or purpose could be accomplished in many other ways that [sic] is involved in this very design, that fact is enough to destroy the claim that this design is primarily functional.”⁸⁵

81 *Id.*

82 The USPTO today agrees. “The distinction must be maintained between the ornamental design and the article in which the design is embodied. The design for the article cannot be assumed to lack ornamentality merely because the article of manufacture would seem to be [de facto] primarily functional.” U.S. PATENT & TRADEMARK OFFICE, *supra* note 62, § 1504.01(c).

83 *John O. Butler Co. v. Block Drug Co.*, 620 F. Supp. 771, 777 (N.D. Ill. 1985) (citations omitted).

84 853 F.2d 1557 (Fed. Cir. 1988).

85 *Id.* at 1563 (alteration in original) (internal quotation marks omitted) (quoting *Pensa Inc. v. L.A. Gear Cal. Inc.*, No. CV-86-5549, 1987 WL 125071, at *5 (C.D. Cal. June 15, 1987)).

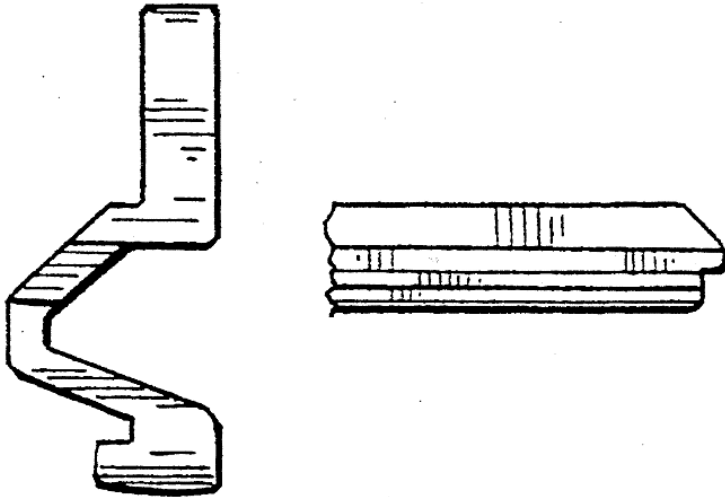
The alternative designs test was affirmed several years later in *L.A. Gear, Inc. v. Thom McAn Shoe Co.*⁸⁶:

The district court remarked on the existence of a myriad of athletic shoe designs in which each of the functions identified by Melville as performed by the '081 design elements was achieved in a way other than by the design of the '081 patent. When there are several ways to achieve the function of an article of manufacture, the design of the article is more likely to serve a primarily ornamental purpose.⁸⁷

The principal case in which the Federal Circuit invalidated a design patent based on functionality is *Best Lock Corp. v. Ilco Unican Corp.*⁸⁸ The patented design was a key blade blank.⁸⁹ The court, after stating the alternative designs test,⁹⁰ concluded that no other shape of this key blade design would fit into its corresponding mating keyway/lock and thus the design patent was invalid.⁹¹

FIGURE 5

United States Patent [19]	[11] Patent Number: Des. 327,636
Best et al.	[45] Date of Patent: ** Jul. 7, 1992
[54] PORTION OF A KEY BLADE BLANK	
[75] Inventors: Walter E. Best; Timothy R. Bjornson, both of Indianapolis; James W. Borgmann, Carmel; Gary R. Jacobs, Indianapolis, all of Ind.	
[73] Assignee: Best Lock Corporation, Indianapolis, Ind.	



86 988 F.2d 1117 (Fed. Cir. 1993).

87 *Id.* at 1123 (citing *Avia*, 853 F.2d at 1563).

88 94 F.3d 1563 (Fed. Cir. 1996).

89 *Id.* at 1564.

90 "A design is not dictated solely by its function when alternative designs for the article of manufacture are available." *Id.* at 1566 (citing *Thom McAn*, 988 F.2d at 1123).

91 *See id.*

Judge Newman's dissent in *Best Lock* pointed out that many products are designed in tandem, to fit with one another, and that should not disqualify them for design patent protection.⁹² She said that the majority lost sight of the difference between the utilitarian features of the product and the functionality of the claimed design:

The parties to this litigation agree that there are myriad possible designs of key profiles. All keys require, of course, mating keyways. In holding that because the key must fit a keyway, the abstract design of the key profile is converted to one solely of function, the court creates an exception to design patent subject matter. An arbitrary design of a useful article is not statutorily excluded from § 171 simply because in use it interacts with an article of complementary design.

. . . . The design of the key profile was not dictated by the design of the keyway, and indeed the two share the same arbitrary design.

In sum, the fact that the key blade is the mate of a keyway does not convert the arbitrary key profile into a primarily functional design. It is not the design of the key profile that is functional, but the key itself.⁹³

The following year the *Berry Sterling* case proposed that the alternative designs test was only one of a number of factors that should be considered in determining whether a design is impermissibly functional.⁹⁴ The factor-based test of *Berry Sterling* has not been widely followed, and recent case law attests to the primacy and importance of the alternative designs test.⁹⁵ In *Ethicon*, the court said: "We have often focused . . . on the availability of alternative designs as an important—if not dispositive—factor in evaluating the legal functionality of a claimed design."⁹⁶

In so holding, it appropriately relegated the *Berry Sterling* list of factors to a back burner: "[W]hile the *Berry Sterling* factors can provide useful guidance, an inquiry into whether a claimed design is primarily functional should begin with an inquiry into the existence of alternative designs."⁹⁷

C. *The Problem with the Alternative Designs Test*

Since the alternative designs test requires consideration of the patented design's function, the question becomes: How does one define "function?"

92 See *id.* at 1569 (Newman, J., dissenting).

93 *Id.* (citations omitted).

94 See *Berry Sterling Corp. v. Pescor Plastics, Inc.*, 122 F.3d 1452, 1456 (Fed. Cir. 1997) ("Consideration of alternative designs, if present, is a useful tool that may allow a court to conclude that a challenged design is not invalid for functionality [A]lternative designs join the list of other appropriate considerations for assessing whether the patented design as a whole—its overall appearance—was dictated by functional considerations.").

95 The similarity between *Berry Sterling's* list of design patent functionality factors and those considered during an analysis of trade dress functionality has been noted. See Saldman, *supra* note 8, at 321–25.

96 *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1329–30 (Fed. Cir. 2015) (emphasis added).

97 *Id.* at 1330.

Surprisingly, no court has addressed that question, even though the definition of “function” in any given case is outcome determinative, as discussed below.

More particularly, does “function” refer to the general function of the claimed design, or the specific function of the claimed design? For example, consider how to define the function of an electrical connector, such as that covered by U.S. Patent No. D440,539, which was asserted in several design patent litigations some years ago.⁹⁸

FIGURE 6⁹⁹

(12) **United States Design Patent** (10) Patent No.: **US D440,539 S**
Montena (45) Date of Patent: **** Apr. 17, 2001**

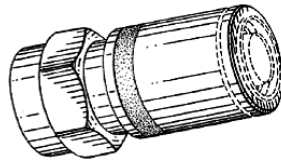
(54) **CLOSED COMPRESSION-TYPE COAXIAL
 CABLE CONNECTOR**

(76) Inventor: **Noah P. Montena, 1505 E. Genesee
 St., Apt. 30, Syracuse, NY (US) 13210**

(**) Term: **14 Years**

(21) Appl. No.: **29/122,505**

(22) Filed: **Apr. 28, 2000**



The design patentee may well describe the claimed design as an electrical connector that conducts electricity from a cable to another connector/cable.

Obviously, this is a broad, general definition of the connector’s function, and it is not difficult to imagine a myriad of alternate connector designs that could perform that function, and that do not look substantially the same as the ’539 claimed design, resulting in a finding of validity.

An accused infringer, on the other hand, would be likely to define the function of the ’539 claimed design more narrowly (as occurred during the various lawsuits involving the ’539 patent), such as:

[A]n electrical connector used to hand-terminate a cable during installation thereof to a TV, the connector conducting electricity from a shielded coaxial cable to a center-pin conductor with a hex tightening nut, where the electrical signal is attenuated no more than 5%, the hex nut occupies no more than 25% of the length of the connector, and the connector is crimped to the cable during installation rather than soldered.¹⁰⁰

This is a very specific, narrow definition of the claimed connector’s function.

With such a narrow definition, the ’539 claimed electrical connector could be found invalid based on functionality, because it is far less likely that there are alternative designs that can perform substantially that same func-

⁹⁸ See, e.g., *John Mezzalingua Assocs., Inc. v. Int’l Trade Comm’n*, 660 F.3d 1322 (Fed. Cir. 2011). I served as an expert witness on behalf of the patentee in some of these litigations.

⁹⁹ U.S. Patent No. D440,539 (filed Apr. 28, 2000).

¹⁰⁰ Saidman, *supra* note 8, at 318.

tion. I took the position in my 2009 paper¹⁰¹ that a specific, narrow definition of the function of a claimed design is improper because there would never be any alternative designs that could perform substantially the same function, and no design patent would then be valid.¹⁰²

However, as noted above for the '539 connector, "function" may refer to the broad, general function of a design.¹⁰³ Yet if the function of a claimed design is defined in general, broad terms, there will always be alternatives that can perform substantially the same function and not look like the patented design. This is true even for the simplest of designs.

The *Best Lock* case from the Federal Circuit frames the issue perfectly.¹⁰⁴ The court invalidated the design patent because it defined its function—without explicitly saying so—very narrowly, namely, a key blade blank that fits within its corresponding keyway of a mating lock.¹⁰⁵ In other words, the length, width, height, shapes, and angles of ridges, valleys, notches, and grooves of the claimed key blade blank had to be formed exactly as shown in the design patent drawings in order to fit within its mating keyway/lock.¹⁰⁶ No other shape will work. This is a logical analysis, yet it is based on a very narrow definition of the function of the claimed key blade blank, namely its specific geometry. On the other hand, if the function of the design was defined broadly, e.g., a key blade that can mate with a keyway in a lock, then there are a large number of alternate key blade designs that would work to perform substantially the same function, as noted in the *Best Lock* dissent,¹⁰⁷ which would result in a holding of validity.

Along the spectrum of definitions of "function" there is a wide range between broad and narrow. The difficulty lies in the fact that there is no "correct" definition of the "function" of a design, and there is no judicial guidance about how to determine it. The ability of a patentee or an accused infringer, respectively, to draft a broad or narrow definition of "function" for any given design, and to have it adopted by the finder of fact, results in an alternative designs test that is not meaningful. In other words, the alternative designs test, thought to be the go-to litmus test for functionality, becomes like a nose of wax, one that can be twisted and turned by litigants to make the

101 See *id.* at 318–21.

102 The narrow definition of the function of the electrical connector may be challenged for another reason: it imports into the design patent limitations of the commercial product that are clearly outside of the four corners of the design patent document. See *PHG Techs., LLC v. St. John Cos.*, 529 F. Supp. 2d 852, 863 (M.D. Tenn. 2007) (citing *Berry Sterling Corp. v. Pescor Plastics, Inc.*, 122 F.3d 1452, 1455 (Fed. Cir. 1997)).

103 See Saidman, *supra* note 8, at 318–21 for additional examples.

104 See *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563 (Fed. Cir. 1996).

105 *Id.* at 1566.

106 The disclosure of the commercial mating lock was outside the four corners of the patent document. See *id.*

107 *Id.* at 1567, 1569 (Newman, J., dissenting) (“[T]here are said to be ‘thousands’ of alternative key blade profiles The parties to this litigation agree that there are myriad possible designs of key profiles.”).

same design patent either valid or invalid, depending upon whose definition of “function” prevails.¹⁰⁸

Since the alternative designs test—thought to be the only objective test that goes to the rationale of the functionality doctrine—is not meaningful, so too is the functionality doctrine that relies on it. In other words, if the alternative design test is meaningless, then its underlying premise—that a doctrine of functionality is necessary to prevent a design patent from being used as a utility patent—is false. Thus, an assessment of the functionality of a design patent serves no purpose and ultimately is a waste of time, money, and judicial resources.

If the doctrine of functionality for design patent validity is dispensed with, the other statutory gateways to patentability nevertheless remain. Namely, a design must still be novel and nonobvious under 35 U.S.C. § 102 and § 103 in order to be patentable.¹⁰⁹ Competitors can still design their own products that function as do patented designs yet do not look like them. There is no necessity for a competitor to copy a patentee’s design in order to compete in the utilitarian aspects of the product.

The dispensation of the functionality doctrine for validity also makes sense because, as noted in the previous sections on infringement, all designs have utilitarian features.¹¹⁰ They must, in order to qualify for design patent protection as an article of manufacture.¹¹¹ *All utilitarian features have an associated appearance.*¹¹² It is the overall appearance of all claimed features—whether utilitarian or not—that matters in prior art validity determinations.

The remaining issue is then how the term “ornamental” should be evaluated under 35 U.S.C. § 171. With due regard to the dangers of putting aesthetic judgments in the hands of the courts, the standard for establishing that a product design is ornamental should be a fairly low bar.¹¹³ It seems to this author that Judge Learned Hand in *H.C. White Co. v. Morton E. Converse &*

108 This is reminiscent of the infirmities of the point of novelty test for infringement, struck down for similar reasons by the Federal Circuit in *Egyptian Goddess*. See *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 671 (Fed. Cir. 2008) (“[T]he point of novelty test has proved more difficult to apply where the claimed design has numerous features that can be considered points of novelty, or where multiple prior art references are in issue and the claimed design consists of a combination of features, each of which could be found in one or more prior art designs . . . [This] has led to disagreement over whether combinations of features, or the overall appearance of a design, can constitute the point of novelty of the claimed design.”).

109 A design must also be “original” to be patentable. 35 U.S.C. § 171 (2012). There is scant case law interpreting “original.” The USPTO rejects designs for lacking originality when inventors claim a naturally occurring article. U.S. PATENT & TRADEMARK OFFICE, *supra* note 62, § 1504.01(d) (citing *In re Smith*, 77 F.2d 514, 515 (C.C.P.A. 1935)).

110 See *supra* Section III.B (discussion of *Avia Group*).

111 See 35 U.S.C. § 171.

112 See *supra* Section II.C (discussions of *Ethicon* and *Sport Dimension*).

113 See *supra* note 69.

Son Co. had it about right: an “ornamental” design is one that “has at least a rudimentary aesthetic appeal.”¹¹⁴

This concept is well accepted in copyright law. The low standard for establishing “originality” is rationally accepted in copyright law; so, too, should a low standard for establishing “ornamentality” be rationally accepted in design patent law.¹¹⁵

CONCLUSION

The doctrine of functionality has outlived its usefulness. Initially, it was created by the case law to guard against using a design patent to protect utilitarian features. When the courts realized that all product designs include utilitarian features, they began to understand that they could not invalidate design patents simply because the claimed design had one or more functions associated with it. The purpose of the doctrine of functionality evolved to mean that one cannot use a design patent to monopolize the utilitarian features of a product—to draw a clear line between design patent subject matter and utility patent subject matter. Over time, the courts realized that utilitarian features of a product design cannot be monopolized by a design patent if alternative designs—products that do not look like the product in question—perform substantially the same function. Those alternative designs were deemed to be proof that the design patent was not monopolizing those utilitarian features—only the particular appearance of one embodiment of those features.

This Essay posits that because it is possible to vary or manipulate the definition of the “function” of a design in the alternative designs test between broad and narrow, the same design patent might be found valid or invalid. Because of that, the alternative designs test itself is made meaningless, and thus the doctrine of functionality that depended on analysis of that test is rendered meaningless.

Regarding design patent infringement, it is now understood that the notion of factoring out utilitarian features during *Markman* claim construction makes no sense. Moreover, conventional tests for design patent infringement require a comparison of the overall claimed design—utilitarian elements included—to the accused product, in light of the prior art. If the prior art products are replete with utilitarian features that of necessity are also found in the claimed design and accused product, i.e., so-called industry standard utilitarian features, then the infringement inquiry will focus on appearance features other than those necessary utilitarian features. The possibility of a design patent claim covering an accused product whose major similarity to the claimed design is a necessary utilitarian feature is thereby minimized.

It is perfectly appropriate that the functionality doctrine for both validity and infringement be buried, since all designs have associated utilitarian fea-

114 *H.C. White Co. v. Morton E. Converse & Son Co.*, 20 F.2d 311, 312 (2d Cir. 1927).

115 *See supra* note 71.

tures incorporated therein, and all utilitarian features have an associated appearance that, if claimed, can and should be taken into account in determining both validity and infringement. Moreover, competitors, as always, are free to design products that use the same utilitarian features as long as they do not look substantially the same as the patented design.

Thus, the doctrine of functionality, in both the realms of validity and infringement, serves no purpose, and continued analysis of that doctrine is a waste of resources.

