A PRIMER ON DESIGN PATENT FUNCTIONALITY

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I. INTRODUCTION

Professor Peter S. Menell and J.S.D. Candidate Ella Corren of the University of California, Berkeley, School of Law have published a paper entitled "DESIGN PATENT LAW'S IDENTITY CRISIS."[1] That paper

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† Design Lawyer, Perry Saidman, LLC. This essay was prepared for the BCLT Design Patent Symposium (February 19, 2021). It is an explanation of some basic design patent law realities drawn from my many years in private practice. The opinions expressed herein are those of the author only and do not necessarily represent those of any client, past or present.

1. Peter S. Menell & Ella Corren, *Design Patent Law's Identity Crisis*, 36 BERKELEY TECH. L.J. 1 (2022).

formed the basis of a conference held February 18, 2021 "Navigating and Rectifying the Design Patent Muddle." Both of which focused on the issue of design patent functionality. In an extensively researched 145-page paper, they describe the "muddle" thusly:

> The [IP] system requires that functional advances meet the higher thresholds of the utility patent system. Affording protection for functional advances short of applying the *utility* patent law's more exacting novelty, non-obviousness, and disclosure requirements would be, as the Supreme Court observed in [*Baker v. Selden*] denying copyright protection for a system of accounting (and the associated lined forms), "a surprise and a fraud upon the public" and undermines free competition.[2]

They concluded:

> [T]he Federal Circuit has allowed the design patent regime to drift into a troubling collision with the utility patent regime. Product designers can now gain protection for functional features without meeting the higher requirements of the utility patent system…
>
> …Design patents should never have been interpreted so broadly as to protect functional features . . . Designers should not be offered a backdoor for protecting functionality.[3]

The foregoing encapsulates the wrong-headed thinking that pervades the paper in that two basic design patent principles were overlooked.

First, a product that has utilitarian features has an associated appearance that, if claimed in a design patent, must be taken into account in determining patentability/validity.[4] It is true that obtaining a design patent on a product that has utilitarian (functional) features prevents others from making, using, or selling a product whose overall appearance is substantially the same as the claimed design. However, it does not prevent someone from making, using, or selling a product having the same utilitarian features. In other words, even though the system removes that one patented design from the universe of

2. *Id.* at 106. In *Baker v. Selden*, 101 U.S. 99, 103–04 (1879), the Court explained that a copyright on the particular manner of expression of a bookkeeping system gives the author the exclusive right to that expression, but it does not give an exclusive right to the underlying idea for protection of which the author would need to obtain a utility patent for that. This is analogous to the design patent/utility patent dichotomy: A design patent protects the particular manner of expression, i.e., the appearance of a design, but not the underlying idea. The designer would need to obtain a utility patent to protect the function embodied in the protected expression.

3. Menell & Corren, *supra* note 1, at 145.

4. For the purpose of clarity, wherever possible the word "appearance" will be used rather than "ornamental," and the word "utilitarian" shall be used rather than "functional."

designs available to a competitor, it does not remove the competitor's ability to use the same utilitarian features among the many choices of designs open to it. Thus, it is misleading and inaccurate to suggest that a design patent somehow protects a design's utilitarian features. It protects only their appearance in combination with all other features.

Second, Menell and Corren's paper advocates that utilitarian features should be "filtered out" of a patented design, i.e., excluded from consideration, before determining infringement, akin to copyright law.[5] This is contrary to the fact that such utilitarian features all have an associated appearance that, if claimed, must be taken into account in infringement analysis. The failure of Menell and Corren's paper to take into account these two basic principles undermines their premise that design patents somehow monopolize utilitarian features of a design.

It is notable that copyright applications are not examined by the Copyright Office, whereas design patent applications undergo a rigorous examination by the U.S. Patent and Trademark Office (USPTO) resulting in a design patent that carries a statutory presumption of validity.[6] In other words, determination of what is copyrightable is left to the courts, while the USPTO determines what is patentable before any court action. This leaves courts in copyright actions to feel free to filter out features that are not novel, too simple, or have solely utilitarian features. In contrast, since a design patent protects the overall appearance of a claimed design, the issued design patent can, and frequently does, consist of features that, when taken alone, are perhaps not novel and/or are simple or utilitarian. It is only when an entire claimed design is not novel or is solely utilitarian will patentability be denied by the USPTO.

Contrary to the assertions in Menell and Corren's paper, the design patent system does not foist a "fraud upon the public,"[7] nor present a "troubling collision with the utility patent regime."[8] Given that design patents protect only the appearance of products and not any utilitarian features that may be part of the overall appearance, any purported conflict with utility patents is illusory. Menell and Corren rely on ancient design patent case law decided long before the courts came to properly analyze so-called functionality. Also, the "filtering out" shibboleth propounded by the paper has been quite properly dealt with by recent Federal Circuit decisions.

The rest of this paper will explore these topics. Section II will set forth the role of utilitarian features in determining design patent validity and explain the

5. Menell & Corren, *supra* note 1, at 37, 132.
6. *See* 35 U.S.C. § 282.
7. Menell & Corren, *supra* note 1, at 6.
8. Menell & Corren, *supra* note 1, at 145.

alternative designs test, now almost universally used to determine design patent functionality. Section III will discuss recent Federal Circuit case law which puts filtration of so-called functional features in its proper place.

II. FUNCTIONALITY AND DESIGN PATENT VALIDITY

This Section first notes that—by statute—design patents must include utilitarian features. It also demonstrates the basic principle that design patents do not protect such utilitarian features, only appearance features. This is because each utilitarian feature has an associated appearance which, if claimed as part of the design patent, is and must be taken into account in determining patentability. Established Federal Circuit case law mandates that a design patent claim be interpreted to include the appearance of every significant feature that is claimed.

In addition, competitors are free to utilize any utilitarian feature claimed in a design patent, as long as their resultant product does not look substantially the same as, i.e., infringes, the patented design.

Only if the overall claimed design is dictated by function will the design patent be invalid.[9] The alternative designs test has been proven to be an objectively determinable, reliable test in determining whether a design is dictated by function and is almost exclusively used by courts considering the issue.

A. BY STATUTE, DESIGNS MUST BE FOR AN "ARTICLE OF MANUFACTURE" WHICH INHERENTLY HAVE UTILITARIAN FEATURES

A design patent can only protect products which are articles of manufacture, i.e., products that have utilitarian features. To get design patent protection, a person has to "invent[] any new, original and ornamental design for an article of manufacture."[10]

Thus, in order to be patentable, a design must be "for an article of manufacture."[11] It cannot be disputed that all articles of manufacture have features that are utilitarian; it is their inherent nature.[12] As aptly stated by the Federal Circuit in *Avia Group International, Inc. v. L.A. Gear California, Inc.*:

> A distinction exists between the [de facto] functionality of an article or features thereof and the [de jure] functionality of the particular design of such article or features thereof that perform a function.

9. *See* L.A. Gear, Inc. v. Thom McAn Shoe Co., 988 F.2d 1117, 1123 (Fed. Cir. 1993).
10. 35 U.S.C. § 171.
11. *Id.*
12. *See* Ethicon Endo-Surgery, Inc. v. Covidien, Inc., 796 F.3d 1312, 1328 (Fed. Cir. 2015) ("Articles of manufacture necessarily serve a utilitarian purpose. . .").

> Were that not true, it would not be possible to obtain a design patent on a utilitarian article of manufacture, or to obtain design and utility patents on the same article.[13]

In other words, the presence of utilitarian features in a design cannot be a basis for denying design patent protection.

B. ALL UTILITARIAN FEATURES HAVE AN ASSOCIATED APPEARANCE

It is evident that all utilitarian features have an associated appearance and that particular appearance can be claimed in a design patent. Examples abound—a desk, a computer keyboard, a cell phone—all have multiple utilitarian attributes. Yet, they also have an appearance, and it is only that appearance that is protected by a design patent in which they are part of the claim.[14]

The scope of a design patent, as with a utility patent, depends on how many elements are in the claim. The fewer elements claimed, the broader the scope; the more elements claimed, the narrower the scope.

Therefore, even though the appearance of utilitarian elements in a claimed design must be taken into account, the scope—either broad or narrow—of the claimed design is necessarily limited by the presence of such elements.[15] In other words, the scope of the patent is broader if utilitarian elements are not part of the claim; conversely, the more utilitarian elements that are included in the claim the more narrow is the claim, having the effect of limiting the universe of products that might infringe it.[16]

It cannot be overemphasized: all claimed features—utilitarian or not—of a design patent contribute to the overall appearance of the design, and all must be taken into account in determining validity and infringement.[17]

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13. 853 F.2d 1557, 1563 (Fed. Cir. 1988).

14. Industrial designers have as their goal the creation of commercially unique designs that ideally blend form and function. *See What Is Industrial Design?*, INDUS. DESIGNERS SOC'Y AM., https://www.idsa.org/what-industrial-design (last visited Apr. 27, 2021); *see also* Brandir Int'l, Inc. v. Cascade Pac. Lumber Co., 834 F.2d 1142, 1145 (2d Cir. 1987). Thus, every industrial design inevitably has utilitarian features.

15. *See* OddzOn Prods., Inc. v. Just Toys, Inc., 122 F.3d 1396, 1406 (Fed. Cir. 1997) ("[T]hese functional characteristics do not invalidate the design patent, but merely limit the scope of the protected subject matter.")

16. *See* Sport Dimension, Inc. v. Coleman Co., 820 F.3d 1316, 1323 (Fed. Cir. 2016) ("Because of the design's many functional elements and its minimal ornamentation, the overall claim scope of the claim is accordingly narrow." (citing *Ethicon*, 796 F.3d at 1334)).

17. *See Ethicon*, 796 F.3d at 1335 ("Where . . . the claimed design includes several elements, the fact finder must . . . compar[e] similarities in overall designs, not similarities of ornamental features in isolation. An element-by-element comparison . . . is procedural error."

As noted previously, if design patents were invalid because they claimed utilitarian features, there would be no design patents, since all designs must by statute be "for an article of manufacture."[18] Although invalid design patents may be the goal of anti-protectionists, it is opposite to the goal of businesses that rely on robust design patent protection to prevent knockoffs from appropriating their unique and valuable visual designs.[19]

C. A DESIGN PATENT DOES NOT PROTECT UTILITARIAN FEATURES

Simply stated: even if a claimed design incorporates utilitarian features, it does not prevent a competitor from using the exact same utilitarian features—as long as the overall appearance of the competitor's product does not look substantially the same as the patented design.

In other words, it is the appearance of whatever is claimed that is protected by a design patent, not the utilitarian features that are part of the claimed design.

Even a simple design—such as a nut for screwing onto a bolt—has appearance features, such as the curvature of the peripheral wrench grips. The function of a nut, such as the threads into which the bolt is screwed, cannot be protected alone by a design patent, only its appearance in combination with other claimed features. Competitors are free to use whatever nut they wish, as long as it does not overall *look like* a nut that is claimed in a design patent.

For example, note the following design patents shown in Figure 1—duly examined for novelty and non-obviousness by the USPTO—that protect appearance features of various nuts:[20]

(citing Richardson v. Stanley Works, Inc., 597 F.3d 1288, 1295 (Fed. Cir. 2010); Crocs, Inc. v. Int'l Trade Comm'n, 598 F.3d 1294, 1303–04 (Fed. Cir. 2010))).

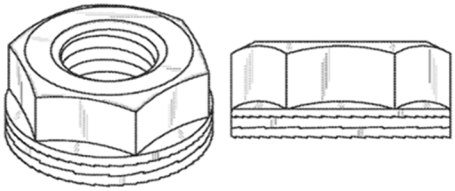
18. 35 U.S.C. § 171.

19. *See* Perry J. Saidman & Theresa Esquerra, *A Manifesto on Industrial Design Protection: Resurrecting the Design Registration League*, 55 J. COPYRIGHT SOC'Y USA 423, 427 (2008).

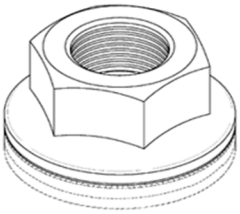
20. U.S. Patent No. D609,999 (filed Feb. 16, 2010); U.S. Patent No. D646,154 (filed Oct. 4, 2011); U.S. Patent No. D582,763 (filed Dec. 16, 2008); U.S. Patent No. D646,153 (filed Oct. 4, 2011); U.S. Patent No. D576,028 (filed Sept. 2, 2008); U.S. Patent No. D371,509 (filed July 9, 1996); U.S. Patent No. D278,029 (filed Mar. 19, 1985); U.S. Patent No. D319,005 (filed Aug. 13, 1991).

Figure 1

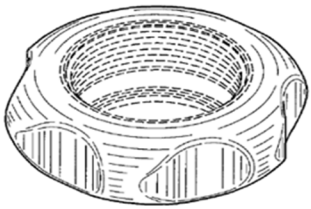
(12) **United States Design Patent** (10) Patent No.: US D609,999 S
Andersson (45) Date of Patent: ** Feb. 16, 2010



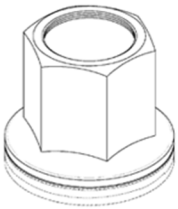
(12) **United States Design Patent** (10) Patent No.: US D646,154 S
Andersson (45) Date of Patent: ** Oct. 4, 2011



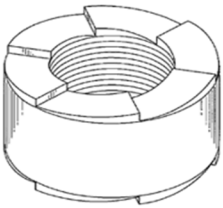
(12) **United States Design Patent** (10) Patent No.: US D582,763 S
Riedel et al. (45) Date of Patent: ** Dec. 16, 2008



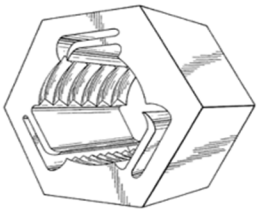
(12) **United States Design Patent** (10) Patent No.: US D646,153 S
Andersson (45) Date of Patent: ** Oct. 4, 2011



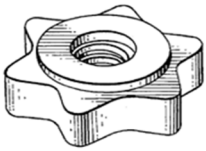
(12) **United States Design Patent** (10) Patent No.: US D576,028 S
Lin (45) Date of Patent: ** Sep. 2, 2008



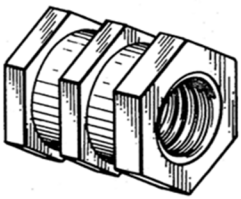
United States Patent [19] [11] Patent Number: Des. 371,509
DiStacio [45] Date of Patent: **Jul. 9, 1996



United States Patent [19] [11] Patent Number: Des. 278,029
Suponitsky [45] Date of Patent: ** Mar. 19, 1985



United States Patent [19] [11] Patent Number: Des. 319,005
Sakayori et al. [45] Date of Patent: ** Aug. 13, 1991

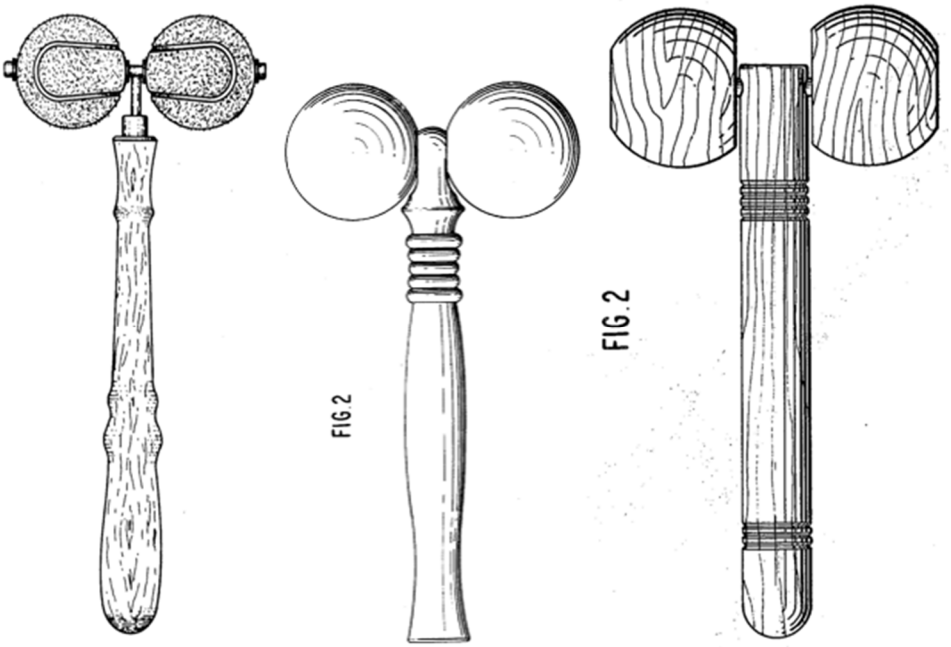


These various designs illustrate how design patents protect the overall appearance of the claimed nuts beyond their utilitarian components. All of these nuts perform substantially the same broad function: they screw onto and thereby fasten a bolt. Yet, they each have a distinctive appearance which is protected by a design patent. Again, a competitor is entitled to use whatever nut it wishes, but it cannot use a nut whose overall appearance is substantially the same as any of these patented nuts. There are an infinite variety of unpatented nuts from which a competitor can choose, or even better, it can design its own.

It is clearly possible for a competitor to incorporate the utilitarian features of a claimed design into its product without infringing the design patent that claims those same features. In *Lee v. Dayton Hudson Corp.*,[21] the patented design, D259,142, is a massage implement having two spherical rollers mounted opposite each other on a rod at one end of a handle, illustrated on the left in Figure 2 below.[22] The two accused designs, illustrated on the right in Figure 2,[23] incorporated exactly those same utilitarian features in products that did not look like the patented design and therefore—and quite properly—were found not to infringe the design patent. The utilitarian features were simply not *per se* protected by the design patent. In other words, the design patent could not be used as a utility patent. Had the patent holder wanted to protect the utilitarian features of his massager, he should have applied for a utility patent.

21. 838 F.2d 1186, 1188 (Fed. Cir. 1988).
22. U.S. Patent No. D259,142 (filed Nov. 24, 1978).
23. *Id.*

Figure 2



D. THE ALTERNATIVE DESIGNS TEST WORKS IN DETERMINING FUNCTIONALITY

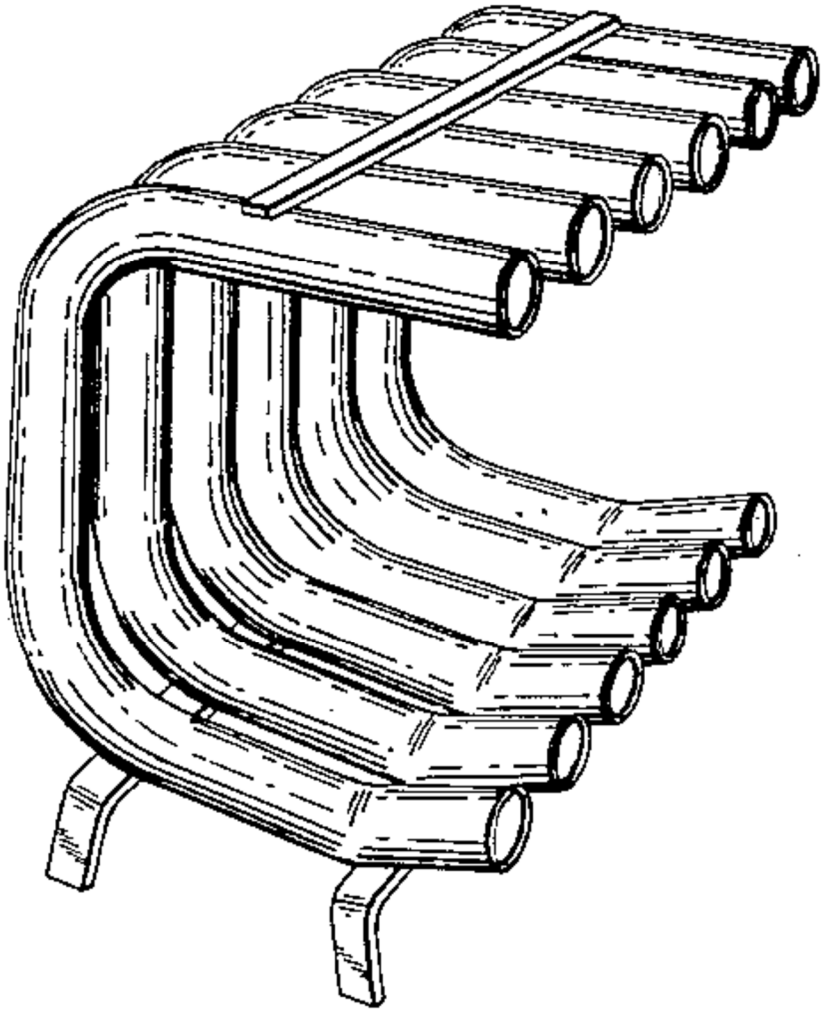
How can a court determine whether a design patent is improperly being used as a utility patent? To assess whether an overall design is impermissibly functional, most courts today have adopted a simple, straightforward, objectively determinable test—the alternative designs test. Namely, if a claimed design has alternative designs that perform substantially the same function, it is solid evidence that the claimed design is not monopolizing that function, maintaining once again the so-called channeling principle.[24]

This is supported by considering the underlying policy of the functionality doctrine: to prevent design patents from monopolizing functional (utilitarian) features that should only be protectable by a utility patent. And the beauty of this alternative designs test is that it is objectively determinable. The patentee simply needs to introduce evidence of such alternative designs.

24. *See* Ethicon Endo-Surgery, Inc. v. Covidien, Inc., 796 F.3d 1312, 1329–30 ("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." (emphasis added)).

One of the earliest cases to adopt the alternative designs test is *Bergstrom v. Sears, Roebuck & Co.*,[25] involving a design patent for a fireplace grate shown in Figure 3.[26]

Figure 3



25. 496 F. Supp. 476, 489 (D. Minn. 1980).
26. U.S. Patent No. D228,728 (filed Dec. 14, 1971).

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.[27]

Courts have also recognized that just because a design performs a function, it does not disqualify it for design patent protection.[28]

There are cases that find design patents invalid because no alternative designs exist for performing substantially the same function as the patented design. One such case is *Best Lock Corp. v. ILCO Unican Corp.*[29] The patented design is a key blade blank, illustrated in Figure 4.[30] The Court, after stating the alternative designs test,[31] concluded that no other shape of this key blade design would fit into its corresponding mating keyway/lock, and thus the design patent was found invalid.

27. *Bergstrom*, 496 F. Supp. at 489.

28. The USPTO 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 primarily functional." MPEP § 1504.01(c) (8th ed. Rev. 7, Sept. 2008) (emphasis in original).

29. 94 F.3d 1563, 1566 (Fed. Cir. 1996).

30. U.S. Patent No. D327,636 (filed July 7, 1992).

31. *Best Lock*, 94 F.3d at 1566 ("A design is not dictated solely by its function when alternative designs for the article of manufacture are available.").

Figure 4

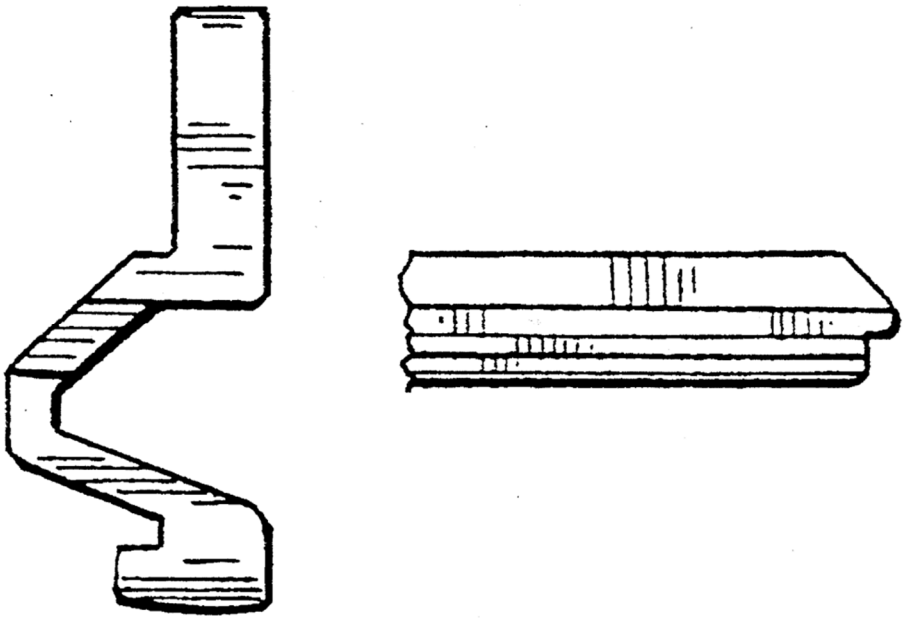
United States Patent [19]
Best et al.

[11] **Patent Number: Des. 327,636**
[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.



Critics may posit that very few visual designs do not have alternatives that perform the same function. This would mean that a vast majority of designs are not legally "functional" within the meaning of 35 U.S.C. § 171.[32] However, this does not contradict the policy objective of channeling protection between the utility and design patent regimes because design patents protect the *appearance* of a product, not the function of utilitarian features that may form part of the claimed design. At the risk of being repetitive, anyone may use any of the utilitarian features of a claimed design so long as the product with which those features are used does not *look like* the patented design. There are an infinite number of choices of product designs available to a competitor with which it may use the same utilitarian features without copying the designer's

32. "Functional" is generally understood to mean not "ornamental," the latter being a statutory requirement for design patentable subject matter.

specific product. A design patent extracts from those infinite choices one design—one—that has been deemed worthy of a design patent granted by the USPTO. And even that one patented design does not protect the utilitarian features whose appearance may be part of the claimed design. Even a design patent claiming a very minimalist design that includes a functional component only protects the appearance of the overall design, not the function of that component.

Moreover, if the alternate designs test for functionality is believed too lax, 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.[33] Competitors can still design their own products that function like a patented design, yet do not look like it. 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 low bar of the functionality doctrine for validity also makes sense because, as previously emphasized, all designs have utilitarian features, which they must in order to qualify for design patent protection as an article of manufacture.[34] *All utilitarian features have an associated appearance*. It is the overall appearance of all claimed features—whether utilitarian or not—that matters in validity determinations.

It is notable that the word "functional" does not appear in the patent statute as a disqualifier for obtaining a design patent. Instead, the word "ornamental" is used.[35] It is well accepted that "functional" is the flip side of "ornamental" (i.e., if a design is "primarily ornamental," it is not "primarily functional"), and the statute is satisfied.[36]

If there is a low bar for functionality, how should the term "ornamental" 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 threshold for establishing that a product design is ornamental should be fairly low. Judge Learned Hand

33. A design must also be "original" to be patentable. 35 U.S.C. § 171(a). There is scant case law interpreting "original." The USPTO rejects designs for lacking originality when they claim a naturally occurring article. *See* MPEP § 1504.01(d) (8th ed. Rev. 7, Sept. 2008) (citing *In re* Smith, 25 U.S.P.Q. (BNA) 359, 360 (C.C.P.A. 1935)).

34. 35 U.S.C. § 171.

35. 35 U.S.C. § 171(a) ("Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title.").

36. "To be patentable, a design must be 'primarily ornamental.' In determining whether a design is *primarily functional* or *primarily ornamental* the claimed design is viewed in its entirety . . . ." MPEP § 1504.01(c) (8th ed. Rev. 7, Sept. 2008) (emphasis in original).

in *HC White Co. v. Morton E. Converse & Son. Co.* had it about right: an "ornamental" design is one that "has at least a rudimentary aesthetic appeal."[37]

Both copyright law and design patent law protect appearance features from being copied. Thus, since the standard for establishing "originality" in copyright law is low,[38] so too should the standard for establishing "ornamentality" in design patent law be low.

III. FUNCTIONALITY AND DESIGN PATENT INFRINGEMENT

The issue of functionality has also come into play in design patent infringement analysis, with some arguing that functional features should be factored out, or filtered, before analyzing infringement. The illogic of this will be demonstrated by comparing it to copyright's filtration analysis. It will also be made clear that recent decisions of the Federal Circuit have finally put this doctrine in its proper place, i.e., the dustbin.

A. FILTRATION OF UTILITARIAN FEATURES IN DESIGN PATENTS IS INAPPROPRIATE

Filtration, i.e., factoring out functional features of a design, is discussed extensively in Menell and Corren's paper with regards to copyright analysis in which courts routinely filter out functional features of a copyrighted work before analyzing infringement. They advocate applying copyright filtration principles to design patent analyses in a misguided effort to prevent a design patent from protecting the function of utilitarian features.

One of the reasons that this is inappropriate is because design patents are examined by the USPTO, while copyrights are merely registered by the Copyright Office without examination. Therefore, it is up to the courts to determine which components of a design are actually copyrightable, while the job of determining patentability has already been done by the USPTO for an issued design patent.

Since the test for copyrightability of a design depends on whether the aesthetic features are separable from the utilitarian features, courts must grapple with the perpetually vexatious issue of separability.[39] In the design

37. 20 F.2d 311, 312 (2d Cir. 1927).

38. *See* Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 358 (1991).

39. "Of the many fine lines that run through the Copyright Act, none is more troublesome than the line between protectable pictorial, graphic and sculptural works and unprotectable utilitarian elements of industrial design." PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 2.5.3, at 2.67 (3d ed. 2020). This copyright separability muddle was attempted

patent realm, the USPTO has already determined that the overall claimed design, whether including utilitarian features or not, is patentable, so contrary to Menell and Corren's thesis, courts need not perform any separability or filtration analysis on an issued design patent. This is also quite logical, since if a court were to filter or factor out utilitarian features of a claimed design, it would convert the patented design to something other than what was examined, allowed, and issued by the USPTO. It would also defeat the public notice function of an issued patent, i.e., to put the public clearly on notice about what was patented.[40]

Following is a discussion of the development of the notion—now discredited—that one needs to "factor out" utilitarian features of a claimed design before determining infringement.

The Federal Circuit in its seminal *Egyptian Goddess* decision[41] affirmed the requirement that a design patent claim must be construed under *Markman*[42] to determine its meaning and scope prior to determining infringement. It held that a verbal description of a claimed design is not necessary, and that it would be preferable for a court to simply refer to the design patent drawings in construing the claim.

At the same time, the court stated:

> [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.[43]

As difficult as it is to attempt to distinguish between "ornamental" and "purely functional" features, this became an oft-used part of *Markman* claim construction of design patents.[44]

Filtering "ornamental" and "functional" features reached its peak in *Richardson v. Stanley Works, Inc.*, involving a design patent on a construction tool

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to be clarified by the Supreme Court in *Star Athletica, L.L.C. v. Varsity Brands, Inc.*, 137 S. Ct. 1002 (2017).

40. "The primary purpose of [the] requirement of definiteness of [what the claim covers] is to ensure that the scope of the claim is clear so the public is informed of the boundaries of what constitutes infringement of the patent." MPEP § 2173 (8th ed. Rev. 7, Sept. 2008).

41. Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 679 (Fed. Cir. 2008).

42. Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996).

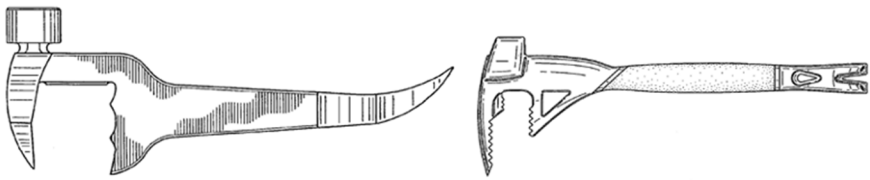
43. *Egyptian Goddess*, 543 F.3d at 680. The origin of this unfortunate statement is discussed in Perry J. Saidman, *The Dysfunctional Read Test: Missing the Mark(man) Regarding the Test for Design Patent Infringement*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 533 (2008).

44. In the Federal Circuit's first case after *Markman*, it held that one cannot avoid infringement by arguing that an accused design is missing functional features claimed in the design patent. *See* Elmer v. ICC Fabricating, Inc., 67 F.3d 1571, 1576–77 (Fed. Cir. 1995).

that combined the utilitarian features of a hammerhead, crowbar, jaw, and handle,[45] illustrated in Figure 5.[46] The Federal Circuit made the following statement that created a bit of chaos in the subsequent case law: "The district court here properly factored out the functional aspects of Richardson's design as part of its claim construction."[47]

The underlying rationale of this "factoring out" exercise when analyzing infringement seems to be the same as in validity analysis, i.e., you cannot use a design patent as a utility patent to protect underlying ideas or concepts. This is what Mr. Richardson essentially was attempting 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).

Figure 5



Richardson's Patented Design **Stanley Works's Accused Design**

The Federal Circuit found that Richardson's multi-function tool consisted of several elements that were "driven purely by utility."[48] The court said, "the handle, the hammer-head, the jaw, and the crowbar are dictated by their functional purpose."[49] Yet, the court found that Stanley Works's product—although incorporating the exact same utilitarian elements—did not infringe the design patent because it simply did not look substantially the same as the patented design.[50] Competitors are free to use the same utilitarian features because the latter had not been protected by a utility patent. Again, the channeling principle was intact. The bright line between utility patent and design patent protection was maintained.

45. 597 F.3d 1288 (Fed. Cir. 2010).
46. U.S. Patent No. D507,167 (filed Jan. 9 ,2004).
47. *Richardson*, 597 F.3d at 1293.
48. *Id.* at 1294.
49. *Id.*
50. *Id.* at 1293–95.

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. Design patent law simply says that Stanley Works's tool cannot look substantially the same in overall appearance as Richardson's, which it does not. No infringement. End of story. Had the Federal Circuit simply said that, much subsequent confusion could have been avoided.

However, the Federal Circuit in its convoluted opinion said that "functional" features need to be factored out before determining infringement, which became a handy weapon for accused infringers. That is, infringers suddenly insisted that courts factor out utilitarian features before determining infringement, leading to an endless waste of court resources in trying to perform this impossible task. It also lost sight of the accepted doctrine that design patent infringement is determined by comparing the overall claimed design to the accused product, not some design that a court has altered by excising various elements.

B. RECENT CASE LAW PUTS SO-CALLED FILTRATION IN ITS PROPER PLACE

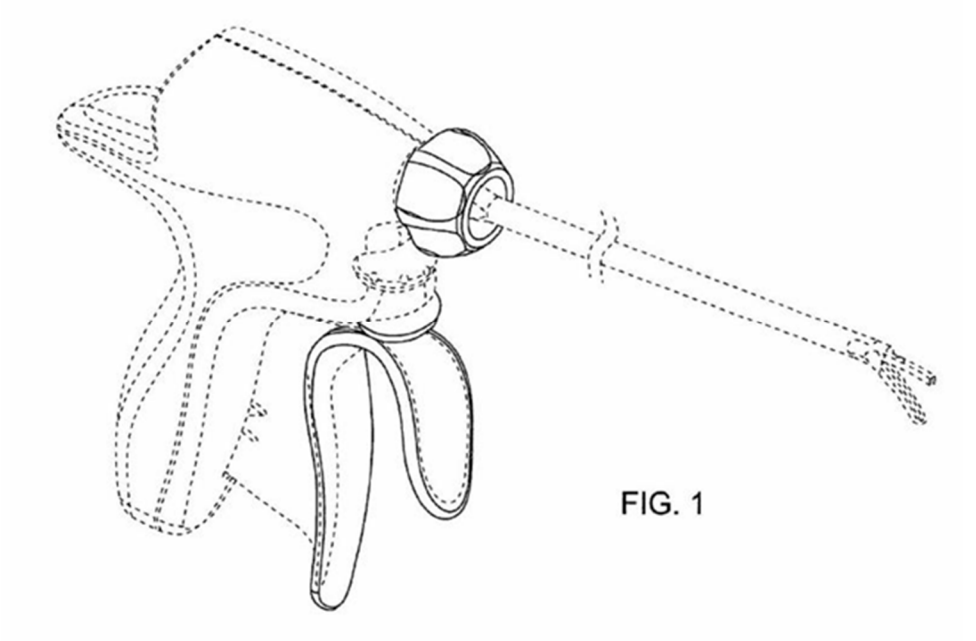
The "factoring out" or filtering exercise of *Richardson* has been logically cabined in recent Federal Circuit case law, particularly the 2015 and 2016 *Ethicon* and *Sport Dimension* cases.[51]

Ethicon involved the design of an ultrasonic surgical device. One of the design patents at issue, D661,804, shown in Figure 6, claimed the combination of three elements: a U-shaped trigger, fluted torque knob, and rounded activation button, shown in the figure below.[52]

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

52. U.S. Patent No. D661,804 (filed June 12, 2012). In a design patent, features shown in solid lines in the patent drawings are claimed as part of the design, while features shown in broken lines are not. MPEP § 1503.02 (8th ed. Rev. 7, Sept. 2008).

Figure 6



The lower court during claim construction "factor[ed] out" each of these so-called "functional" elements, concluding therefore that the '804 design patent covered "nothing."[53] The Federal Circuit reversed, saying that the lower court failed to account for the particular appearance of the admittedly utilitarian elements.[54] "[T]he 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."[55]

Thankfully, the Federal Circuit then clarified what it meant by its "factoring out" language in *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.[56] One is always left with the embellishing appearance aspects of those

53. *Ethicon*, 796 F.3d at 1332–33.

54. *Id.* at 1334.

55. *Id.*

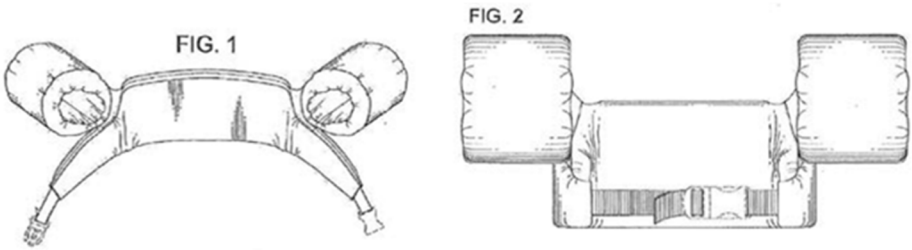
56. *Id.* at 1333 ("[T]he design claim [in *Richardson*] did not broadly protect a multi-function tool with a hammer, crowbar, handle, and claw, but only the specific ornamental aspects of that tool in the depicted configuration.").

same utilitarian features to compare to the accused product in determining design patent infringement.

This is a very significant analytic approach in determining the scope of a design patent claim prior to determining infringement. All utilitarian elements have a particular appearance. And no matter how visually significant the utilitarian element is, it is the element's particular appearance, in combination with the appearance of all other claimed elements, that is compared to the accused product in determining infringement.

This approach was confirmed by the Federal Circuit in *Sport Dimension*, which involved a design shown in Figure 7 for a flotation device that had several utilitarian features, including two armbands and a tapered torso.

Figure 7



Before reaching a conclusion, the court reviewed *Richardson* and *Ethicon*.[57] In discussing *Richardson*, the Court stated that "[the utilitarian elements of the patented design in *Richardson*] were well known in the art, and their basic design was dictated by their respective [utilitarian] purposes. But there were nevertheless [appearance] aspects of the design of those elements . . . the [lower] court's [claim] construction properly ensured that the claim provided protection, albeit narrow, over those aspects of the tool that [had a particular appearance]."[58] In discussing *Ethicon*, decided the preceding year, the *Sport Dimension* court noted that "[w]hile [it] agreed that certain elements of the [Ethicon] device were [utilitarian], their functionality did not preclude those elements from having [a] protectable [appearance]."[59]

Afterwards, the court correctly concluded that, "[i]n . . . *Richardson* and *Ethicon*, [the Court] construed design patent claims so as to assist a finder of fact in distinguishing between [utilitarian] and [appearance] features. But in no

57. Sport Dimension, Inc. v. Coleman Co., 820 F.3d 1316, 1321 (Fed. Cir. 2016).
58. *Id.* (citations omitted).
59. *Id.* (citations omitted).

case did [it] entirely eliminate a structural element from the claimed . . . design, even though that element also served a [utilitarian] purpose."[60]

Critics could argue that omitting the filtration process will give design patent holders monopoly power over the utilitarian aspects of a design, but that concern is unjustified. Omitting filtration of utilitarian features during claim construction will not result in monopolization of the utilitarian aspects of such features; it will only result in the inability of competitors to use in their products substantially the same overall appearance of such features in combination with whatever else is claimed.

Also, critics have suggested that design patents offer designers a "backdoor for protecting functionality."[61] But, as explained above, since design patents only protect appearance features and not utilitarian features of a product, there is no "backdoor" for designers to walk through.

It is apparent from the foregoing that filtration or factoring out of utilitarian features from a claimed design makes little sense. The USPTO's examination process takes into account whether such utilitarian features, along with other features, are patentable as part of an overall claimed design. This is contrasted with copyrights, which are merely registered without examination, requiring a court to figure out in the first instance which portion of the work is indeed copyrightable.

Moreover, the Federal Circuit has now made it abundantly clear that factoring out of functional features is inappropriate in design patent infringement analysis.

IV. CONCLUSION

The doctrine of functionality was created by case law to guard against using a design patent to protect utilitarian features, which is the province of utility patents. When the courts realized that all product designs include utilitarian features, they began to understand that you could not invalidate design patents simply because the claimed design had one or more utilitarian functions associated with it. 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 claimed design—perform substantially the same function. The existence of alternative designs is incontrovertible proof, using objective evidence, that the design patent is not monopolizing utilitarian features, only the particular appearance of the overall design, including the appearance of such utilitarian features.

60. *Id.* (citations omitted).
61. Menell & Corren, *supra* note 1, at 145.

The fact that very few designs do not have alternatives that perform substantially the same function does no harm to the so-called channeling goal. That is because no matter what is claimed in a design patent, it is the appearance of the claimed design that is protected, not the utilitarian functions. The latter are free to be emulated by a competitor as long as it steers clear from making, using, or selling a product that looks substantially the same as the patented design. In other words, a competitor is encouraged to design its own product rather than knock off another's unique and valuable design, thereby promoting the progress of design innovation.

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.

Design patent law with regards to so-called "functionality" is today in relatively good shape, needs no tinkering, and slams shut the illusory backdoor.