DESIGN PATENT FUNCTIONALITY
AFTER EGYPTIAN GODDESS AND RICHARDSON:
THE ASSUMPTION OF CLAIM CONSTRUCTION DYSFUNCTION AND GUMPTION

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The Federal Circuit’s decisions in Egyptian Goddess v. Swisa and Richardson v. Stanley Works have afforded district courts considerable discretion regarding how to assess functional features of claimed designs in the context of infringement. Setting aside the threshold question of whether such evaluations are proper in the context of claim construction (versus being affirmative defenses), a matter which has been discussed extensively, the lack of clear signposts through the functionality thicket is injecting significant uncertainty into design patent litigation.

To make matters more complicated, the signposts that do exist are not always pointing in the same directions. Indeed, Richardson’s use of varied language to describe how to consider functional elements in design patents, words such as “ignoring” and “factoring out,” present further uncertainty. Indeed, it seems conceivable within the purview of Richardson that a court—armed with wide discretion—could completely “ignore” functional features and erase them from a claim, or it could merely “disregard” them.

Looking at post-Egyptian Goddess and Richardson case law, the net result is a patchwork of opportunistic battles—for patentees and alleged infringers—fought on several fronts. Courts are the arbiters of these new fronts, and they are making variable choices about functional aspects of designs. For now, practitioners should evaluate the various tests and advocate for the tests that most favor their clients. To the extent the foothold of Egyptian Goddess in claim construction can be challenged, returning functionality to a defense to validity would likely create more certainty. Doing so not only would reverse the reliance on dicta, but it would also be more efficient, it would inject more certainty into the process, and it also would avoid any element-by-element parsing on the design patent claim, which is something that is clearly not permitted.

I. BACKGROUND OF DESIGN PATENT FUNCTIONALITY

As design patents protect “new and ornamental articles of manufacture,” everybody seems to agree that “[a] design patent only protects the novel, ornamental features of the patented design.”¹ The flip side of protecting ornamentality is not protecting functionality, and everybody also seems to agree that at least some functional aspects of claimed designs are not protectable. Conversely, not every functional aspect is excluded from protection.

This is because design patents only relate to articles of manufacture, and every article of manufacture has some function, for example, to dig, to hold liquid, to entertain, or to depict

something else. So it can’t be that any function precludes design patent protection. From there things begin to deviate. But let’s pause for a moment and consider the context of functionality first.

II. THE TRADITIONAL CONTEXT FOR CONSIDERING FUNCTIONALITY

The traditional context for considering design patent functionality was as an affirmative defense to infringement akin to invalidity based on, e.g., anticipation and obviousness. The US Patent and Trademark Office also has long rejected design patent applications for “lack of ornamentality.”

When a functionality issue arises, the threshold question is how it should be handled. The traditional context for functionality was as an affirmative defense, premised upon the notion that a design is not patentable unless it is ornamental, and that a design is not ornamental if it is functional, in the same way that a utility invention is not patentable unless it is useful.

An example of functionality being applied in the affirmative defense context is Best Lock v. Ilco. In Best Lock, the Federal Circuit affirmed the invalidation of US Des. Pat. No. D327636 titled “Portion of a Key Blade Blank” on the ground that “the key blade must be designed as shown in order to perform its intended function—to fit into its corresponding lock's keyway. An attempt to create a key blade with a different design would necessarily fail because no alternative blank key blade would fit the corresponding lock. In fact, Best Lock admitted that no other shaped key blade would fit into the corresponding keyway, and it presented no evidence to the contrary. Therefore, we find no clear error in the court's finding that the claimed key blade design was dictated solely by the key blade's function. Any aesthetic appeal of the key blade design shown in the ‘636 patent is the inevitable result of having a shape that is dictated solely by functional concerns.”:

\[\text{Figs. 1, 2 and 5 of D327,636 in Best Lock}\]

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2 See, e.g., In re Carletti, 328 F.2d 1020, 1021 (C.C.P.A. 1964) (affirming rejection that “the differences between appellants’ gasket and the prior art, to which differences we must look in deciding whether patentable invention exists, are \textit{dictated by functional requirements, i.e., to make the article fit the place where it is to be used and to increase the functional utility thereof rather than to appeal to the esthetic sense.”}).

3 See Best Lock Corp. v. Ilco Unican Corp., 40 USPQ2d 1048 (Fed. Cir. 1996)
Best Lock is the only Federal Circuit case ever to hold a design patent invalid on functionality grounds in the context of an affirmative defense. Indeed, as with other types of validity, the burden must be proved by clear and convincing evidence. Even then, it was a close call. Judge Newman, in dissent, stated that “[i]n 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 Section 171 simply because in use it interacts with an article of complementary design.”

III. THE INTRODUCTION OF FUNCTIONALITY TO CLAIM CONSTRUCTION

The utility patent infringement case of Markman v. Westview Instruments gave rise to claim construction and claim interpretation being a matter of law. Courts thereafter began to construe design patent claims.

The first design patent case to apply Markman was Alan Tracy v. Trans Globe Imports. In Alan Tracy v. Trans Globe Imports, an unreported case, the Federal Circuit considered design patent drawings for broken lines showing indeterminate length to cover a U-shaped accused device, when the U-shape would have been in the article portion not shown:

![Fig. 14 of D312,511 in Alan Tracy](image)

<table>
<thead>
<tr>
<th>Special Description from ‘511 Patent</th>
<th>Written Claim Construction</th>
</tr>
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<tbody>
<tr>
<td>“FIG. 14 is a fragmentary front elevation view of a sixth embodiment of my design, the figure being broken away to indicate indeterminate length …”</td>
<td>“The patent claim is for a lens panel of indeterminate length. This claim is supported by drawings which indicate a break in the lens panel. Nothing in the claim restricts this break to straight, as opposed to curved, extensions.”</td>
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The Elmer case followed, where a litigant sought to exclude “functional” features of his design, apparently for the purpose of making his design patent more like the infringers. He wasn’t allowed to do so—the court said that the features were claimed (i.e., they weren’t in dotted lines) and thus they were part of the claim. So here the patentee was not allowed to exclude functional features from the design.

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4 Best Lock, 40 USPQ2d at 1052.
7 Elmer v. ICC Fabricating, Inc., 36 USPQ2d 1417 (Fed. Cir. 1995).
In *OddzOn Prods. v. Just Toys*, the court stated that “Where a design contains both functional and non-functional elements, the scope of the claim must be construed in order to identify the non-functional aspects of the design as shown in the patent.”\(^8\) This was quite a change, as the language “must” necessitates claim construction for functional features. Presumably, this meant more than just checking the box and issuing a construction that simply referred back to the drawings as shown and described. Indeed, OddzOn issued a lengthy verbal construction as shown below:

![Fig. 1 from the '620 Patent](pertinent parts circled)  
**Alleged Infringement**  
**Exemplary Prior Art**

The next case of significance in this area was *Egyptian Goddess v. Swisa*. Although Egyptian Goddess is best known for eliminating the “point of novelty” test for infringement, the Federal Circuit also opined on claim construction. The district court issued the following construction:

A hollow tubular frame of generally square cross section, where the square has sides of length S, the frame has a length of approximately 3S and the frame has a thickness of

\(^8\) *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1405 (Fed. Cir. 1997).
approximately $T$ equals 0.1S; the corners of the cross section are rounded, with the outer corner of the cross section rounded on a 90 degree radius of approximately 1.25$T$, and the inner corner of the cross section rounded on a 90 degree radius of approximately 0.25$T$; and with rectangular abrasive pads of thickness $T$ affixed to three of the sides of the frame, covering the flat portion of the sides while leaving the curved radius uncovered, with the fourth side of the frame bare.9

The Federal Circuit didn’t like this claim construction and struck it, noting that “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 claim language.”10 The court reasoned that “a design is better represented by an illustration ‘than it could be by any description and a description would probably not be intelligible without the illustration.’”11 This is the proverbial “a picture is worth a thousand words.”

At the same time, however, the Federal Circuit acknowledged some scenarios for ensuring design patent claim construction would be helpful to a jury:

1. describing the role of particular conventions in design patent drafting, such as the role of broken lines;
2. assessing and describing the effect of any representations made in the course of the prosecution history; and (most importantly here)
3. distinguishing between those features of the claimed design that are ornamental and those that are purely functional.12

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10 *Egyptian Goddess, Inc. v. Swisa, Inc.*, 88 USPQ2d 1658, 1669 (Fed. Cir. 2008) (*en banc*).
11 Id. (quoting Dobson v. Dorman, 118 U.S. 10, 14 (1886)).
12 Id. (citing *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1405 (Fed.Cir.1997) (“Where a design contains both functional and non-functional elements, the scope of the claim must be construed in order to identify the non-functional aspects of the design”).

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Falley Buffer Block  
Nailco Patent
As mentioned previously, every article of manufacture has functional features, and thus
#3 has the possibility to swallow the whole rule, especially as infringers hungry for verbalized
claim constructions seek to omit “purely,” meaning that any functional aspect—and not just de
jure functional aspects, e.g., aspects that make the design dictated by function—might be fodder
for a verbalized claim construction. The next case made this easier than ever to do.

From the Egyptian Goddess line of scrimmage, Richardson v. Stanley Works took the
OddzOn ball and ran with it. In Richardson, the plaintiff asserted U.S. Des. Pat. No. D507,167
against Stanley Works’ “fubar” product:

On appeal, the Federal Circuit reaffirmed the viability of the OddzOn practice of
“separating the functional and ornamental aspects” during claim construction, noting that it was
“not persuaded by Richardson’s argument that our holding in Egyptian Goddess mandates a
different result here.”13 In doing so, Richardson acknowledged that “the distinction between the
functional and ornamental aspects of a design” is one of “a number of claim scope issues on
which a court’s guidance would be useful to the fact finder.”14

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14 Id.
So we are now at a stage where consideration of design patent functionality outside of just as an affirmative defense (e.g., in claim construction) seems here to stay. The problem is that there is no clear guidance on how to handle functionality in these contexts.

So the court encouraged district courts to “address” issues such as functionality, but then said it wouldn’t “guide that process in detail . . . .” Yet it cited OddzOn in the same passage, suggesting that maybe claim construction is the best approach. District courts are understandably confused. In DePaoli v. Daisy, the district court commented that:

It is not entirely apparent from this passage whether the Federal Circuit advocates resolving prosecution history and functionality issues through formal Markman claim construction, jury instructions, or some other means. On the one hand, the court refers to “guid[ing] the finder of fact” in a manner “[a]part from attempting to provide a verbal description of the design,” id., which suggests jury instructions may be the best avenue. On the other hand, the court’s parenthetical quotation from OddzOn suggests that these issues, or at least the question of functionality, may properly be addressed during claim construction. One thing that does seem clear from Egyptian Goddess is that district courts have considerable discretion for resolving this type of question.15

As will be shown below, this is resulting in widely varying perspectives and decisions on design patent functionality. The variance has all but destroyed the ability of even the most skilled design patent litigation practitioners to foresee the strengths and weaknesses of their cases, which is increasing the amount of well-meaning but unnecessary litigation in the field.

A. DYSFUNCTION #1: DIFFERENT COMPONENTS V. WHOLE THING: YOU NEVER KNOW WHAT YOU’RE GOING TO GET

First, Richardson supports the hacking up of designs into various component functions, and allows each function to “suck away” from the claimed design. In Richardson, the hacking occurred with each part of the multi-tool, as it was assessed for functionality rather than the entire combination. This practice has been sharply criticized.

Some cases are proceeding with an analysis of functionality that could be seen as element by element. In Carson Cheng v. AIM Sports, for example, Defendants argued that “each of the tools within the multifunction tool have separate functions.”16 Plaintiff agreed that the tools within the multifunction tool had separate functions, but also “offer[ed] evidence that each of the individual tools within the multifunction tool could have been designed differently with no adverse affect [sic] on the utility of the whole and its component parts.”17 Noting other evidence from the plaintiff that “[t]he patented tool looks like a mobile flip phone when closed and opens like a clam shell, while the other tool looks like a pocket knife,” the court concluded that “the designs of the tools within the multifunction tool and the design of the multifunction tool itself are not ‘dictated by the use or purpose of the article’ and can be altered without adversely

17 Daisy, Op. at 1 (emphasis added).
affecting the article’s utility.”

Accordingly, the court declined to incorporate these functions into the construction.

However, the court did decide that “the design feature of having to remove the various individual tools from the housing of the multifunction tool in order to make use of each individual tool is ‘dictated by the use or purpose of the article’ …”

Another concerning flavor of feature-by-feature functionality displayed in *Cheng* is the use of prior art to isolate functional features.

Here, the Court agreed that the “close resemblance of the patented article in this case to the prior art [namely D548,552] suggests that design is indeed dictated by function.”

**B.  DYSFUNCTION #2: VARYING TESTS FOR DESIGN PATENT FUNCTIONALITY**

Even if examining functionality on an element-by-element is appropriate, varying functionality tests exist.

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18 Id.
19 Id.
20 Id.
Early functionality analyses tended to be couched in the context of novelty. In *In re Garbo*, for example, the Court of Customs and Patent Appeals affirmed an administrative appeal board affirmance of an obviousness rejection of a design patent application relating to a car simulator arrangement, stating that “the design must have an unobvious appearance distinct from that dictated solely by functional considerations.”

Gradually, functionality arose as a prominent, independent hurdle to patentability—premised on the “ornamental” requirement for statutory subject matter for design patents under 35 USC § 171—and a formal “Dictated by” test emerged. For example, in *Best Lock v. Ilco*, the Federal Circuit stated that “if the design claimed in a design patent is dictated solely by the function of the article of manufacture, the patent is invalid because the design is not ornamental.” To the extent alternative designs exist that perform the same function, then the “Dictated by” test is generally not satisfied.

But then the Federal Circuit made things more complicated in *Berry Sterling*. There, the Federal Circuit reversed a grant summary judgment of invalidity for functionality, noting that the district court “apparently did not consider the alternative designs important in deciding whether the [patent-in-suit] is invalid for functionality.” The Federal Circuit then stated that failing to “give dispositive effect to the existence of alternative designs in its validity analysis is not error,” instead favoring a test comprising considering alternative designs and other “appropriate considerations” heretofore not identified in design patent jurisprudence (but perhaps deriving from similar considerations in trade dress jurisprudence). Thus, the *Berry Sterling* test considers:

- whether alternative designs exist;
- “whether the protected design represents the best design;”
- “whether alternative designs would adversely affect the utility of the specified article;”
- “whether there are any concomitant utility patents;”
- “whether the advertising touts particular features of the design as having specific utility;” and
- “whether there are any elements in the design or an overall appearance clearly not dictated by function.”

A third variant appeared in *Amini Innovation v. Anthony California*, which stated that a claimed aspect is functional if “it is essential to the use or purpose of the article or if it affects the cost or quality of the article.”

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21 See *In re Garbo*, 129 USPQ 72, 73 (C.C.P.A. 1961).
22 *Best Lock Corp. v. Ilco Unican Corp.*, 40 USPQ2d 1048, 1049 (Fed. Cir. 1996) (citing *dicta* from *Bonita Boats, Inc. v. Thunder Craft Boats, Inc.*, 9 USPQ2d 1847, 1851 (1989) (“To qualify for protection, a design must present an aesthetically pleasing appearance that is not dictated by function alone, and must satisfy the other criteria of patentability.”) (other citations omitted)).
23 See, e.g., *Avia Group Int’l v. L.A. Gear California Inc.*, 7 USPQ2d 1548, 1553 (Fed. Cir. 1988) (noting that every identified function of claimed design aspects “could be and has been achieved by different components. And that is a very persuasive rationale for the holding that the design overall is not primarily functional.”).
24 See, e.g., *In re Morton Norwich Prods.*, Inc. 213 USPQ 9 (C.C.P.A. 1982).
So the concern is whether the existence of alternative designs is dispositive in itself, and if not, whether the factors of the *Berry Sterling* test or the *Amini* “cost and quality” assessment should be considered. Depending on the design, all three tests could lead to different results.

C. DYSFUNCTION #3: THE VARYING VERBIAGE OF *RICHARDSON*

Even if an element-by-element functionality analysis is permissible, and there are no inconsistencies among the functionality tests for those elements, the language of *Richardson* is not very precise and thus leaves the manner of how to handle each functional element very open. For example, compare the following quotes from Richardson relating to how to handle functional elements during claim construction:

<table>
<thead>
<tr>
<th>Richardson Statement</th>
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<tbody>
<tr>
<td>“The district court here properly <strong>factored out</strong> the functional aspects of Richardson's design as part of its claim construction.” <em>Richardson, 93 USPQ2d 1937</em> at 1939.</td>
</tr>
<tr>
<td>“In its order, the [district] court first distinguished, as part of its claim construction, the ornamental aspects from the functional aspects of Richardson's design and then determined that an ordinary observer, after <strong>discounting</strong> the functional elements of Richardson's design, would not be deceived into thinking that any of the Fubar tools were the same as Richardson's Stepclaw.” (“Because the court correctly construed the claim at issue … we affirm”). <em>Id.</em></td>
</tr>
<tr>
<td>“We also agree that, <strong>ignoring</strong> the functional elements of the tools, the two designs are indeed different.” <em>Id.</em> at 1941.</td>
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As an aside, any of the above seem to contradict *Elmer*, which prohibited the patentee from “factoring out,” “discounting” and/or “ignoring” functional elements during claim construction. The cover for doing so now, of course, is *Egyptian Goddess*—an *en banc* Federal Circuit decision but Egyptian Goddess never explicitly mentioned that it would overrule *Elmer*.

To make matters worse, perhaps due to a lack of clear guidance, cases are unknowingly continuing to diffuse the verbiage used when assessing functionality. In *Munchkin v. Luv N' Care*, for example, the Patent Trial and Appeal Board instituted *Inter Partes* review for U.S. Des. Pat. No. D617,465 on April 25, 2013:26

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Before assessing the merit of the petitioner’s request to institute inter partes review, which was premised on obviousness grounds, the PTAB construed the claim of the ‘465 patent. In assessing the petitioner’s argument that “the vessel and collar do not form part of the claim because ‘they are functional,’” the PTAB characterized the argument as stating “[i]n other words, Petitioners argue that the claim only covers the spout.” Although the PTAB declined to accept Petitioner’s argument, the PTAB’s assumption that the petitioner’s argument should be read to mean that the claim “only covers the spout” is worrisome.

In the author’s opinion, the “worst case” scenario would be for a district court to latch onto the “ignoring” language and completely remove functional elements from a claim. So for Richardson, where the court stated that “Richardson’s multi-function tool comprises several elements that are driven purely by utility” including “elements such as the handle, the hammerhead, the jaw, and the crowbar . . . .” If these elements are “ignored,” one could envision the construed claim appearing (at the very least in the minds of fact finders) as follows:

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27 Id. at *12.
28 Richardson, 93 USPQ2d at 1944.
This “ignoring” example is admittedly silly—among other things, it is tantamount to redrawing the figures—but yet there is no clear obstacle to it, especially given the discretion that has been given to district courts on functionality, and that a dearth of design patent case law sometimes leads to *dicta* like the “ignoring” language in *Richardson* being given more weight than it otherwise would. It might also be less silly—but no less incorrect—if a district court selected only certain functional elements (as in *Chang*) so that the resulting shape was not just a presumptively invalid claim to a square metal bar as shown above.

**D. DYSFUNCTION #4: VARIABLE TIMING AND METHODOLOGY FOR EVALUATING FUNCTIONALITY**

The cherry on top of these three dysfunctions is variable timing and the fact that consideration of functionality can be a moving target—substantively and procedurally. Quite simply, cases like *Egyptian Goddess* have empowered district courts with discretion to evaluate design patent functionality pretty much at any time and in any context, or at least courts—such as *Daisy* expressly admitted—are not able to discern clear direction from relevant Federal Circuit opinions about when design patent functionality should be evaluated. Possible options include during Markman proceedings, at the close of fact and/or expert discovery, at summary judgment (or after legal issues are fully briefed) or at trial (via jury instructions).

In *180s v. Gordini U.S.A.*, the court “refrain[ed]” from distinguishing functional characteristics during claim construction even though functionality issues were raised. The court decided that it could “wait until a later stage of the litigation” to distinguish ornamental and functional characteristics. The court found that, unlike the situation present in *Richardson*, the case before it had not yet advanced to the stage where addressing functionality was appropriate.

Claim construction is also not static. In *Apple v. Samsung*, the district court considered functionality in the context of evaluating the preliminary injunction factor of likelihood of success on the merits, finding that, for claim construction purposes, the patents-in-suit contained aspects that were “dictated by” functionality. As a footnoted caveat to its construction, which reflected these functional aspects, the district court stated that “[t]his claim construction occurs before a complete record has been established. It may be that expert testimony, prosecution history, and a full briefing on the issue may provide additional data points from which to draw a different conclusion. Based on the limited evidence in the record, however, this is the most reasonable claim construction . . . .” Thus, the timing of construction can be moved, and it is not necessarily a fixed target.

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30 *Id.* at 729.
31 *Id.* at 729-30.
33 *Id.* at n. 10.
34 *See also Colgate-Palmolive Co. v. Ranir L.L.C.*, 2007 U.S. Dist. LEXIS 55258 (D. Del. 2007).
IV. Yearning for Clarity

*Egyptian Goddess* was well-meaning in that it sought to give district courts discretion to tailor the handling of functional features to the facts of each case. But the resulting decisions are a statistical random spattering along the lines of what’s been mentioned above.

Given all the things above, litigants have very little guidance on anything with functionality. So a practitioner advising his or her client as to the strength of a case cannot provide clear guidance on what will be viewed as the design, how, which test, and when. It doesn’t help that so few design patent cases exist, meaning that many judges are encountering them for the first time. This is a major problem and the law yearns for clarity.

So what is a better result? Although *Egyptian Goddess* eliminated the point of novelty test, it still qualified the ordinary observer test as being considered with prior art. It’s difficult to conceive of a situation where—if a claimed design is purely functional—the prior art will not reflect the function. This return to the basics invokes the common element of all the functionality test variants too which all have in common the touchstone that if alternative designs are available then the design is not dictated by function. In the interest of still providing discretion to a district court, jury instructions could guard against reaching too far one way or the other.

Third, Richardson provides such wide latitude as to whether and when functionality should be considered that litigants have little to no guidance as far as how to proceed. So a prospective litigant faces the uncertain road of litigating for or against a design patent without knowing what the claim scope will be, will it include functional elements, will functionality be decided by jury instructions etc.

And if for whatever reason the prior art doesn’t reflect a purely functional design, the alleged infringer would still have the opportunity to contest functionality as an affirmative defense.

So if, for example, the Cheng court stuck with the ordinary observer test, it could have nested the consideration of infringement within the prior art, e.g., the “commercially available multifunction tool that resembles a pocketknife,” and the finder of fact could consider it in that context. Instead, we had a situation where the patent-in-suit was construed “to exclude the design feature of having to remove the individual tools from the housing of the multifunction tool.” Even if feature-by-feature functionality is appropriate, the problem with this construction is that feature form and feature function are not so mutually exclusive as to reveal a clear, objective answer.

A Supreme Court case (or another *en banc* case) relating to design patent functionality might answer this question. Absent that, practitioners need to assess the best tests and courses of action for their clients and act accordingly.