

Functionality in Design Patent Law

Validity, Claim Scope, and the Jury. By Robert G. Oake, Jr. Updated October 2, 2026.

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Overview

These written materials address functionality in design patent law. The governing authority is 35 U.S.C. § 171(a), which grants a patent for a new, original and ornamental design for an article of manufacture; the Supreme Court's decisions in *Gorham Co. v. White*, 81 U.S. (14 Wall.) 511 (1871), and *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141 (1989); the Federal Circuit's decisions in *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117 (Fed. Cir. 1993), *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563 (Fed. Cir. 1996), *OddzOn Products, Inc. v. Just Toys, Inc.*, 122 F.3d 1396 (Fed. Cir. 1997), *Berry Sterling Corp. v. Pescor Plastics, Inc.*, 122 F.3d 1452 (Fed. Cir. 1997), *PHG Technologies, LLC v. St. John Cos.*, 469 F.3d 1361 (Fed. Cir. 2006), *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665 (Fed. Cir. 2008) (en banc), *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288 (Fed. Cir. 2010), *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), and *Range of Motion Products, LLC v. Armaid Co.*, 166 F.4th 981 (Fed. Cir. 2026); and MPEP § 1504.01(c). These materials accompany the continuing legal education program of the same title and contain the full citations, the case discussions, and the proposed jury instructions to which the program refers.

Functionality may be the least settled doctrine in design patent law. The reason is not a shortage of decisions. It is that the courts have used one word to describe two different questions, and have borrowed the tools built for one question to answer the other. The first question is whether a design is ornamental at all. If the appearance of the design as a whole is dictated by the function of the article, the design is not ornamental, and the patent is invalid. That is a validity question, and it is answered by looking at the design as a whole. The second question arises only after the first has been answered in the patentee's favor. Most valid designs are designs for useful articles, and most of their elements do something. The second question asks what weight those elements carry when the claimed design is compared with an accused design. That is a claim scope question, and it is answered element by element. The doctrine went astray when the whole-design validity tools, in particular the factors of *Berry Sterling* and *PHG*, were carried into the element-by-element claim scope inquiry, and when the

phrase "factoring out," which describes what happens to a functional concept at claim construction, was read as a direction to remove functional elements from the design before the jury compares it with the accused design.

The confusion has now reached the Federal Circuit in terms the court itself has stated. On the denial of rehearing en banc in *Range of Motion*, Chief Judge Moore wrote that once a judge determines that an aspect of a design is functional, "it is entirely unclear what happens next": whether the functional aspect is excluded from the comparison, which would run up against the court's precedent, or is "discounted somehow." *Range of Motion Products, LLC v. Armaid Co.*, No. 2023-2427, ECF No. 85 (Fed. Cir. Aug. 11, 2026) (Moore, C.J., dissenting from the denial of rehearing en banc), dissenting op. at 2. These materials set out to answer that question. The answer proposed here does not require new law. It is a reading of principles the courts have already accepted, stated separately and then read together. The cases do not yet prescribe a single formula for accounting for a functional feature in the infringement comparison, and these materials do not claim that they do. What the materials claim is that the cases, read for what they did rather than for the words they used, are consistent with one approach, and that the approach can be stated plainly enough to be put in a claim construction and a jury charge. Where the text states a holding, it says so. Where it states the reading these materials advance, it says that too.

These materials are organized into six substantive parts, supported by four appendices. Part 1 states the problem and the method. Part 2 states the accepted principles, one at a time, with the authority for each. Part 3 analyzes how the principles interact and draws the conclusions that follow. Part 4 applies those conclusions to each stage of litigation, from the pleadings through claim construction and summary judgment to the jury charge, and proposes jury instructions for several situations. Part 5 collects practice points for the design process, prosecution, and litigation. Part 6 states the conclusion and the limits of these materials. The appendices provide a checklist, questions and answers, a statement of limitations, and a table of authorities with the key holding of each.

Three propositions run throughout the material that follows.

First, functionality asks two questions, not one. The validity question is whether the design as a whole is dictated by function. The claim scope question is whether a particular element of a valid design exists, or is arranged as it is, because the article requires it. The two questions have different subjects, different standards, and different decisionmakers, and the evidence that answers one does not necessarily answer the other.

Second, the cases do not permit a court to eliminate an entire structural element merely because it serves a function. They instead limit the claim to the design's ornamental aspects and deny protection for resemblance resting only on functional features or on a broader general design concept. These materials advance the view that this limitation is best carried out by identifying the functional requirement at the level of the concept, meaning that the element must exist or must be arranged as shown, while preserving the shape the drawings give the element in the whole-design comparison. A

design patent does not protect the general concept of a ball with a tail and fins, or of a tool with a hammer at one end and a pry bar at the other, apart from the depicted appearance. On this reading, identifying that concept as functional and setting it aside removes nothing from the drawings.

Third, the jury compares the designs as a whole. A functional concept is accounted for by telling the jury that resemblance flowing only from that concept does not show infringement, and that the depicted ornamental treatment of the feature remains part of what is compared. It is not accounted for by editing the design before the jury sees it.

The practical stakes are best illustrated by *Range of Motion* itself. The district court, applying the *Berry Sterling* factors at claim construction, found the clamshell shape of the arms of a massage device functional, while describing the thick ridged outline of the design, which includes the arms, as largely ornamental. It then granted summary judgment of noninfringement on a comparison of what remained. The Federal Circuit affirmed, and the court divided on rehearing over whether functionality belongs to the judge or the jury and over what a finding of functionality does. The materials that follow contend that the district court asked a validity question when it should have asked a claim scope question, and that had it asked the right question, the shape of the arms would have stayed in the comparison and the comparison would have been for the jury.

Quick Reference Guide

DO:

Do separate the two questions before doing anything else. Ask first whether the design as a whole is dictated by function. Ask second, and only for a design that passes the first question, which elements exist or are arranged as they are because the article requires it.

Do apply the alternative designs test at the level of the question being asked. For validity, ask whether the design as a whole could look different and still work. For claim scope, ask whether the particular element could look different and still work.

Do distinguish the concept of an element from the shape of the element. The concept is that the element exists and where it sits. The shape is what the designer gave it. Function may dictate the first. It rarely dictates the second.

Do remember that the *Berry Sterling* and *PHG* factors were created for the validity inquiry. *Sport Dimension* permits their use as a guide at claim construction, but they answer whether a feature serves a function, not whether its shape was chosen, and they should not be used as a scoring system that strips the shape of an element from the comparison.

Do insist that the claim remain the drawings. A claim construction that identifies a purely functional requirement in a sentence does its job. A claim construction that lists the ornamental features, or that excludes an element's shape, goes further than *Egyptian Goddess* contemplated and invites the element-by-element comparison the court warned against.

Do draft jury instructions that tell the jury what the functional concept is and that resemblance flowing only from that concept does not show infringement, while telling the jury in the same instruction that the shapes given to those elements remain part of the design it compares.

Do apply the same treatment to the prior art. A functional concept that is set aside when the claimed design is compared with the accused design is set aside when the claimed design is compared with a prior art reference.

Do build the record early. Design logs, rejected alternatives, and advertising that emphasizes appearance answer both questions; a utility patent, advertising that touts utility, and prosecution remarks that describe a feature by what it does are evidence against the patentee on both.

Do consider, before arguing that a feature of your own design is functional, what that argument does to the same feature at the other stage.

DON'T:

Don't say a design or element is "functional" because it performs a function. Nearly every element of a useful article performs a function. The question is whether its appearance was dictated by that function.

Don't apply the *Berry Sterling* factors element by element. A utility patent on the mechanism says nothing about whether the visual form of the mechanism was a choice.

Don't read "factoring out" as removal. *Richardson* itself cautioned that discounting functional elements must not convert the infringement test into an element-by-element comparison, and *Sport Dimension* held that elements may not be eliminated from the claim.

Don't read *Sport Dimension*'s instruction that the factfinder should not focus on the particular designs of functional elements as license to ignore their shapes. The same opinion holds that the elements remain in the claim to the extent they contribute to the overall ornamentation. The instruction is a caution against treating any one element as dispositive.

Don't borrow the trade dress standard. *Inwood*'s cost and quality test and the *Morton-Norwich* factors serve competition in a regime of potentially perpetual rights. Design patent functionality serves the ornamentality requirement in a regime of limited-term rights, and the standard is whether the design is dictated by function.

Don't let the court's construction be the last word the jury hears on functionality. A construction that identifies a purely functional concept must be carried into the charge in words that preserve the whole-design comparison.

Don't assume that a finding that an element is functional for claim scope purposes bears on invalidity. Invalidity requires that the design as a whole be dictated by function, by clear and convincing evidence.

Don't argue that a feature was a free aesthetic choice in one proceeding and functionally compelled in another. A clear and unmistakable prosecution statement can limit the scope of a design patent, and statements made elsewhere are evidence.

1. Introduction and Method

Functionality in Brief

The validity question. A design patent is invalid if the design as a whole is dictated by the function of the article, because a design so dictated is not ornamental within § 171. The test is whether the overall appearance was dictated by function, and the principal evidence is whether alternative designs would work. The *Berry Sterling* and *PHG* factors are a non-exclusive list of evidence bearing on this question. Functionality in this sense is a question of fact, and invalidity must be proven by clear and convincing evidence.

The claim scope question. A valid design for a useful article usually contains elements that serve a function. The court, as part of claim construction, may identify those features of the claimed design that are purely functional, and the claim is limited to the ornamental aspects of the design. Functional elements are not eliminated; they remain in the claim to the extent they contribute to the overall ornamentation. The designs are still compared as a whole from the viewpoint of an ordinary observer familiar with the prior art. These materials advance the view that the functional requirement should be identified at the level of the concept, meaning that the element must exist or must be arranged as shown, and that the shape the drawings give the element stays in the comparison.

What remains contested. Whether current Federal Circuit practice correctly assigns disputed functionality questions at claim construction to the court rather than the jury, a question on which the court divided on rehearing in *Range of Motion*; how far the *Berry Sterling* factors should be used at claim construction; how *Sport Dimension*'s instruction about the particular designs of functional elements should be read; and how a jury should be told to account for a functional feature without removing the element from the design. Parts 3 and 4 address each.

Design patent law protects the appearance of useful things. That is the source of the difficulty. The design must be a design for an article of manufacture, and an article of manufacture is something made to be used. [35 U.S.C. § 171\(a\)](#). So every design patent sits on top of an article that has a purpose, and nearly every element of the design does something toward that purpose. The handle of a tool is there to be held. The trigger of a surgical instrument is there to be pulled. The arms of a massage device are there to hold the roller against the limb. If the law treated the presence of a function as disqualifying, there would be almost nothing left to protect. If the law ignored function entirely, a patentee could claim the only shape that works and exclude competitors from the article itself. The functionality doctrine exists to draw the line between those two results.

The doctrine has drawn that line in two places, for two purposes, and the confusion begins there. The first line is drawn at validity. A design that is dictated by function is not ornamental, and a patent on such a design is invalid. That line protects the public from a design patent that would operate as a utility patent without meeting the requirements of one. The second line is drawn at claim scope. A valid design may include elements whose presence or arrangement is required by function, and the resemblance between two products that flows only from that requirement should not support a finding of infringement, because the patentee never owned the requirement. That line protects competitors from a design patent that would operate as a claim to a general configuration. Each line is sound. The trouble arises when the tools built to draw the first line are used to draw the second.

The confusion is visible in the vocabulary. The same word, functional, is used for a design that is invalid as a whole and for an element of a valid design whose existence the patentee cannot monopolize. The same phrase, dictated by function, is used for both. The same list of factors, from [Berry Sterling](#) and [PHG](#), has been applied to both. And the phrase that describes what a court does with a functional element at claim construction, factoring out, has been read by some courts as a direction to remove the element, by others as a direction to discount it, and by the Federal Circuit itself, in [Sport Dimension](#), as a direction to keep the element but not to focus on its particular design. Chief Judge Moore's statement on rehearing in [Range of Motion](#) that it is entirely unclear what happens next after a functionality finding is an accurate description of where the doctrine stands.

These materials take a different approach from the usual survey of the cases. Rather than begin with the decisions and try to reconcile them, they begin with the principles the decisions have accepted, state each one separately with its authority, and then ask how the principles interact. The premise is that the courts have not disagreed about the principles. They have disagreed about what follows from them, and they have disagreed largely because the principles have not been laid side by side. When they are, an answer to what happens next comes into view, and it requires no change in the law as the cases have decided it. It requires that each principle be applied to the question it was built to answer, and it requires the court to say, at claim construction and in the charge, which of the two questions it is answering.

Part 2 states thirteen principles. Some are elementary and are stated because the later analysis depends on them. Others are contested at the margins, and where they are, the statement notes the contest and leaves the resolution to Part 3. Part 3 works through the interactions and draws seven conclusions. Part 4 turns the conclusions into procedure: what a court should do at each stage, and how the jury should be charged. The jury charge is where the doctrine has done the least work and where it is needed most, because a bench opinion can describe the discounting of a functional element in a paragraph, while a jury must be told in a few sentences how to account for a functional concept without losing the design.

2. The Accepted Principles

The principles below are stated in an order in which each depends on the ones before it. The first five concern what ornamentality means. The sixth and seventh concern the validity question. The eighth through twelfth concern the claim scope question. The thirteenth concerns who decides.

2.1 The Patent Covers the Design as Applied to the Article, Not the Article

Section 171 grants a patent for "any new, original and ornamental design for an article of manufacture." The design must be for an article, and the article must be useful, because an article of manufacture is by definition something made to be used. But the patent covers the design, not the article. A design patent on a hammer does not exclude others from making hammers. It excludes others from making hammers that look substantially the same as the claimed one. *Gorham*, 81 U.S. at 528. The distinction is elementary, and it is the foundation of everything that follows, because it means that the utility of the article is never in question. The article is useful by hypothesis. The question the functionality doctrine asks is about the appearance of the design, not about the usefulness of the thing the design is applied to.

The history of the statute explains why this took time to settle. The design patent statutes of 1842, 1861, 1870, and 1874 used the word "useful," in phrases such as "new and useful pattern, or print, or picture" and "new, useful, and original shape or configuration of any article of manufacture." Act of Aug. 29, 1842, § 3; Act of Mar. 2, 1861, § 11; Act of July 8, 1870, § 71; Rev. Stat. § 4929 (1874). Courts read "useful" in that setting to mean matters of ornament "in which the utility depends upon the pleasing effect imparted to the eye, and not upon any new function." *Rowe v. Blodgett & Clapp Co.*, 112 F. 61, 62 (2d Cir. 1901). But some courts read it as the Constitution uses it, to mean mechanical utility, and held that useful articles were patentable under the design statute whether or not they had ornamental character. William D. Shoemaker, *Patents for Designs* 133 (1929). In 1902 Congress replaced "useful" with "ornamental," and the change was understood not to change the law but to state it more clearly. Act of May 9, 1902, ch. 783, 32 Stat. 193. The word "ornamental" has been in the statute since, and the functionality doctrine is the courts' way of giving it content.

2.2 Ornamental Means Not Dictated by Function Alone, and Requires Neither Beauty Nor Visibility

The Supreme Court has said that "[t]o 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." *Bonito Boats*, 489 U.S. at 148. The Federal Circuit has taken the second half of that sentence and not the first. A design need not be aesthetically pleasing to be ornamental. *Seiko Epson Corp. v. Nu-Kote International, Inc.*, 190 F.3d 1360, 1368 (Fed. Cir. 1999). Nor need it be visible throughout the life of the article; a design that is hidden in normal use, such as a hip prosthesis, may be ornamental if its appearance is a matter of concern at some point in the article's commercial life. *In re Webb*, 916 F.2d 1553, 1557-58 (Fed. Cir. 1990). What the Federal Circuit requires is that the design not be dictated by function. "[I]f 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." *Best Lock*, 94 F.3d at 1566. "If the patented design is primarily functional rather than ornamental, the patent is invalid." *Richardson*, 597 F.3d at 1293; see *L.A. Gear*, 988 F.2d at 1123.

The court has been explicit that the standard is dictated by function and not something less. In *Automotive Body Parts Ass'n v. Ford Global Technologies, LLC*, 930 F.3d 1314 (Fed. Cir. 2019), the challenger argued that Ford's hood and headlamp designs were functional because a replacement part must match the vehicle to be commercially acceptable. The court held that a design patent must claim an ornamental design and not one dictated by function, that the aesthetic appeal of a design to consumers is not a function that makes the design functional, and that the desire of a purchaser for a part that matches the rest of the vehicle does not make the design of the part dictated by function. *Id.* at 1319-21. The court also confirmed that the design patent inquiry does not import the aesthetic functionality doctrine of trademark law. *Id.* at 1320. The case is the clearest recent statement that the standard is dictation, and that the market's preference for a particular look is not dictation.

2.3 Ornamentality Means a Conscious Design Choice Was Made

The reason the standard is dictation, and the reason the standard makes sense, is that a design dictated by function is a design nobody chose. The Court of Customs and Patent Appeals stated the point in the case the MPEP still cites for the ornamentality requirement. Many articles whose configurations are dictated solely by function are pleasing to look at, the court observed, giving as examples a hex nut, a ball bearing, a golf club, and a fishing rod, "the pleasure depending largely on one's interests. But it has long been settled that when a configuration is the result of functional considerations only, the resulting design is not patentable as an ornamental design for the simple reason that it is not 'ornamental' – was not created for the purpose of ornamenting." *In re Carletti*, 328 F.2d 1020, 1022 (C.C.P.A. 1964). The MPEP quotes the last phrase as the definition of the requirement: for a design to be ornamental within § 171, it must be "created for the purpose of ornamenting." MPEP § 1504.01(c).

The purpose of the design patent statute is to promote the decorative arts. *Avia Group International, Inc. v. L.A. Gear California, Inc.*, 853 F.2d 1557, 1563 (Fed. Cir. 1988); *Applied Arts Corp. v. Grand Rapids Metalcraft Corp.*, 67 F.2d 428, 430 (6th Cir. 1933). If a design is the only design that will perform the function, the designer made no decorative choice in arriving at it; the function made the choice. Granting a patent on that design would reward nothing the statute was meant to promote. If instead the designer could have made the design look different and it would still have worked, then the way it looks is the result of a choice, and a choice is what the statute rewards. This is why the availability of alternative designs is the central evidence on functionality, and why it is more than one factor among several. The existence of alternatives is what shows that a choice was made. The absence of alternatives is what shows that there was no choice to make.

The principle also explains what the standard does not require. It does not require that the designer have been thinking about beauty. It does not require that the design be better looking than the alternatives. It does not require that the designer have been indifferent to cost or performance. A designer who weighs the appearance of a design against its cost, and chooses the appearance, has made a design choice. A designer who chooses the appearance and accepts a cost, or who rejects an appearance because of a cost, has also made a design choice. Only the designer who had no choice, because only one configuration would work, has made none. The design choice principle is the key that fits both of the locks that follow, and the later parts of these materials return to it repeatedly.

2.4 Performing a Function Does Not Make a Design or an Element Functional

The Federal Circuit stated the distinction in *Avia*: "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." 853 F.2d at 1563. Every article of manufacture performs a function. Nearly every element of the article contributes to it. A shoe sole supports the foot, and the ridges on the sole grip the ground. That does not make the sole or the ridges functional in the design patent sense, because the question is not whether the ridges do something but whether the particular design of the ridges was dictated by what they do. In *Avia* the court found that the ridges and the arrangement of features on the sole were not dictated by function because other designs would have served, and it held the design ornamental. *Id.*

Practitioners sometimes borrow the vocabulary of trade dress to keep the two ideas apart. An element that performs a function is functional de facto. An element whose design is dictated by function is functional de jure. Only de jure functionality matters for design patents. The labels are useful as long as it is understood that they mark the distinction *Avia* drew and do not import the trade dress standard, which Part 2.5 addresses. The Federal Circuit has restated the *Avia* distinction in different words in each of its major functionality decisions. In *Ethicon* the court said that the district court had erred by "focusing on the general concepts of an open trigger, torque knob, and activation button rather than the ornamental designs adorning those elements." 796 F.3d at 1332. In *Range of Motion* the court rejected

the argument that all design elements must be either completely ornamental or completely functional. [166 F.4th at 990](#). An element can do something and still have a shape that was chosen. That is the ordinary case, not the exception.

2.5 Design Patent Functionality Is Not Trade Dress Functionality

Trade dress law has its own functionality doctrine, and the two are frequently confused because they share a name and some of the same evidence. They do not share a purpose, and they do not share a standard. Under the Lanham Act, a product feature 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." *Inwood Laboratories, Inc. v. Ives Laboratories, Inc.*, 456 U.S. 844, 850 n.10 (1982); *TrafFix Devices, Inc. v. Marketing Displays, Inc.*, 532 U.S. 23, 32 (2001). The purpose of that doctrine is to preserve competition. A trademark can last forever, and if a feature that competitors need in order to compete could be protected as trade dress, the Lanham Act would grant a perpetual monopoly on the feature. *Qualitex Co. v. Jacobson Products Co.*, 514 U.S. 159, 164-65 (1995); *TrafFix*, 532 U.S. at 34-35. The *Morton-Norwich* factors, which look to utility patents, advertising that touts utility, alternative designs, and cheaper or simpler manufacture, were built to answer that competitive question. *In re Morton-Norwich Products, Inc.*, 671 F.2d 1332, 1340-41 (C.C.P.A. 1982). *TrafFix* later held that once a feature is found functional under the *Inwood* formulation, there is no need to consider whether alternative designs are available, 532 U.S. at 33-34, which moved the trade dress inquiry further from the design patent inquiry, where the availability of alternatives is the central evidence.

Design patent functionality serves a different purpose. A design patent lasts fifteen years from grant for applications filed on or after May 13, 2015, and fourteen years for earlier applications, [35 U.S.C. § 173](#), and it blocks competition in the design by its nature; preserving competition in the design during the term is therefore not the purpose of the design patent doctrine, because the statute has granted that exclusivity for a limited time in exchange for the disclosure of the design. The purpose of the design patent doctrine is to enforce the ornamentality requirement, which means to ensure that the patent protects a design choice and not a functional necessity. The standard that serves that purpose is dictation. A feature that affects the cost or quality of an article may nonetheless be one of many that would work, and if it is, the designer chose it, and the design is ornamental. The Federal Circuit has said this in terms. In *Automotive Body Parts*, the court declined to apply the trademark aesthetic functionality doctrine to design patents and held that the design patent standard is whether the design is dictated by function. [930 F.3d at 1319-20](#).

The confusion is understandable because the Federal Circuit itself has twice borrowed from trade dress. In *Amini Innovation Corp. v. Anthony California, Inc.*, 439 F.3d 1365, 1371 (Fed. Cir. 2006), the court quoted *Inwood* for the proposition that an aspect of a design is functional if it is essential to the use or purpose of the article or affects its cost or quality. And the *Berry Sterling* factors, discussed in Part 2.7, resemble the *Morton-Norwich* factors closely enough that their origin is not in doubt, although *Berry Sterling* cited no authority for them. [122 F.3d at 1456](#). Neither borrowing has displaced the dictation

standard. *Amini* decided the case on other grounds, and the court's later decisions, including *Richardson*, *Ethicon*, *Sport Dimension*, and *Automotive Body Parts*, state the standard as dictation and use the *Berry Sterling* factors, where they use them, as evidence of dictation rather than as a substitute for it. The practical point is to recognize a trade dress argument when it appears in a design patent case. An argument that a feature makes the product cheaper to make, or works better than the alternatives, is a trade dress argument. It bears on design patent functionality only if it shows that no alternative would work.

2.6 Validity Is Judged on the Design as a Whole, and Only a Design Dictated by Function as a Whole Is Invalid

The validity question is asked of the design as a whole. "In determining whether a design is primarily functional or primarily ornamental the claimed design is viewed in its entirety, for the ultimate question is not the functional or decorative aspect of each separate feature, but the overall appearance of the article, in determining whether the claimed design is dictated by the utilitarian purpose of the article." *L.A. Gear*, 988 F.2d at 1123. The Federal Circuit has applied that rule consistently since. *Berry Sterling*, 122 F.3d at 1455; *PHG*, 469 F.3d at 1366; *Ethicon*, 796 F.3d at 1329-30. A design is not invalid because some of its elements are functional. It is invalid only if the design as a whole is dictated by function, which means that there was no design choice to be made at the level of the overall appearance.

The rule has a counterexample in the court's own early precedent. In *Power Controls Corp. v. Hybrinetics, Inc.*, 806 F.2d 234, 239 (Fed. Cir. 1986), the court stated that "[i]n determining whether a design is primarily functional, the purposes of the particular elements of the design necessarily must be considered." Read in isolation, that sentence endorses an element-by-element inquiry. The MPEP still quotes it. MPEP § 1504.01(c). But *L.A. Gear* and the cases after it settled the question in favor of the whole-design inquiry, and the *Power Controls* sentence is best read as saying that the purposes of the elements are evidence bearing on the whole, not that the whole is the sum of the elements. The distinction matters, and it is the first place the two questions have been confused. A court that examines the elements of a design one at a time and finds each of them functional has not answered the validity question. It has at most identified elements whose concepts may be set aside for claim scope purposes, which is a different inquiry with a different consequence.

The designs the Federal Circuit has actually held invalid on this ground show what dictation as a whole looks like. In *Best Lock*, the claimed design was a key blade. The blade had to fit the keyway of a matching lock, and no other blade shape would open the lock. The court held that the design was dictated solely by function and the patent invalid. 94 F.3d at 1566-67. Judge Newman dissented on the ground that many other keyway shapes were possible, *id.* at 1567-70, and the case remains the clearest example of a matching requirement that leaves the designer no choice. In *Carletti*, the claimed design was a gasket whose grooves and ribs were fixed by a military specification "without the slightest suggestion that they serve in any way as ornamentation," 328 F.2d at 1022, and the design was held

unpatentable. A magistrate judge reached the same conclusion for a travel kit whose design maximized the liquids that could be carried in a one-quart bag under airline regulations, but the district court's adoption of the recommendation was withdrawn and the case ended without a merits ruling, so the recommendation is an illustration rather than authority. *Shop*TV, Inc. v. Bed Bath & Beyond, Inc.*, No. 09-cv-00057-REB-CBS, 2010 WL 427782 (D. Colo. Jan. 19, 2010) (recommendation), *adopted*, 2010 WL 489539 (D. Colo. Feb. 3, 2010), *withdrawn*, 2010 WL 582165 (D. Colo. Feb. 17, 2010). In *Best Lock* and *Carletti* the whole appearance was fixed by something outside the designer's control. That is the category the validity doctrine exists to catch, and it is a small category. Against it stand the far more numerous cases in which the challenger showed that elements performed functions but could not show that the design as a whole was dictated: *Avia*, *L.A. Gear*, *Hupp v. Siroflex of America, Inc.*, 122 F.3d 1456, 1460 (Fed. Cir. 1997), *Berry Sterling*, *PHG*, *Ethicon*, and *Automotive Body Parts* among them.

2.7 The Primary Test Is Whether Alternative Designs Would Work, and the *Berry Sterling* Factors Are Evidence Bearing on the Whole-Design Question

The evidence that answers the validity question is, first and mainly, the availability of alternative designs. "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." *L.A. Gear*, 988 F.2d at 1123. The reason follows from Part 2.3. If other designs would perform the function, the designer chose this one, and the choice is what the statute protects. *Hupp* applied the same reasoning to a mold for a simulated stone pathway, holding that because other designs had the same general use and the aesthetic characteristics of the claimed design were not dictated by the function of the article, the design was primarily ornamental. 122 F.3d at 1460. The alternative designs test is not a formality. It is the direct measure of whether a design choice was made.

Berry Sterling added a list. The case involved a design for a beverage container shaped to fit a vehicle cup holder, and the district court had held the design invalid on summary judgment because the container's shape was dictated by the cup holder. The Federal Circuit reversed. It held that the presence of alternative designs may be an important factor but is not the only one, and it stated that "[o]ther appropriate considerations might include: 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." 122 F.3d at 1455-56. *PHG* adopted the list, describing it as a "list of . . . considerations for assessing whether the patented design as a whole—its overall appearance—was dictated by functional considerations." 469 F.3d at 1366 (quoting *Berry Sterling*, 122 F.3d at 1455). *Ethicon* used it for the same purpose. 796 F.3d at 1329-31. Each of these cases was a validity case, and in each the question the factors were used to answer was whether the design as a whole was dictated by function.

Three features of the list deserve notice, because they matter when the list is carried elsewhere. First, the factors are non-exclusive and unweighted. The court said other considerations "might include" them; it did not say they were required or that any of them was dispositive. Second, several of the factors, particularly the utility patent and advertising factors, are trade dress factors, and they ask about the utility of the article rather than about the appearance of the design. A utility patent on a mechanism proves that the mechanism is useful. It does not prove that the visual form given to the mechanism was the only form that would work. Third, the last factor, whether there are any elements in the design or an overall appearance clearly not dictated by function, is the design choice principle restated. If there are such elements, the design as a whole is not dictated by function, and the inquiry ends in the patentee's favor. The list thus contains its own answer, and a court that applies the list and finds any element clearly not dictated by function has found the design ornamental.

Sport Dimension stated, in one sentence, that the *Berry Sterling* factors "may serve as a useful guide for claim construction functionality as well." 820 F.3d at 1322. Whether that extension was sound, and what it has produced, is the subject of Part 3.3. For present purposes the principle is that the factors were created for the validity question and have been applied by the Federal Circuit, in every case in which the court has actually applied them, to the design as a whole.

2.8 Functionality at the Infringement Stage Is a Question of Claim Scope, Not Validity

A design that survives the validity question may still contain elements that serve a function. *OddzOn* stated the consequence: "these functional characteristics do not invalidate the design patent, but merely limit the scope of the protected subject matter." 122 F.3d at 1405. "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." *Id.* *Egyptian Goddess* listed the task among the ways a trial court may guide the factfinder without a verbal description of the design: the court can usefully "distinguish[]" between those features of the claimed design that are ornamental and those that are purely functional." 543 F.3d at 680. *Richardson* held that "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." 597 F.3d at 1294.

Three points follow from the principle as stated. First, the inquiry at this stage assumes validity. The court is not asking whether the design as a whole is dictated by function; it has already been decided, or is presumed, that it is not. Second, the inquiry is directed at particular features rather than the whole, because the whole has already passed. Third, *Egyptian Goddess* used the word "purely," and the word has been repeated in *Lanard Toys Ltd. v. Dolgencorp LLC*, 958 F.3d 1337, 1342 (Fed. Cir. 2020), and other decisions. A feature that is purely functional is one that has no ornamental aspect: its appearance, to the extent the patentee could claim it, is entirely the product of what it must do. The word does work in Part 3, where the question is how far a court may go at claim construction.

2.9 A Purely Functional Element May Be Identified and Its Concept Set Aside in the Infringement Comparison

The principle that resemblance flowing from a functional requirement does not support infringement is older than the Federal Circuit. In *Applied Arts*, the Sixth Circuit rejected the argument that two ash tray designs infringed because they shared the general configuration function required: "To hold that general configuration made necessary by function must give to a patented design such breadth as to include everything of similar configuration, would be to subvert the purpose of the law, which is to promote the decorative arts rather than to effectuate it. It is as though we were to say that since all dining room chairs are similar in that they have four legs, a seat and a back, the great master designers of the classical periods were merely slavish imitators of their predecessors" 67 F.2d at 430.

OddzOn applied the principle to a foam football with a tail and fins. The court held that the tail and fins were necessary for a ball with the aerodynamic stability of the claimed one, that those general features were functional and "not protectable as such," and that the claim was properly limited "to its overall ornamental visual impression, rather than to the broader general design concept of a rocket-like tossing ball." 122 F.3d at 1404-05. Because the accused balls shared the tail and fins, the patentee "must show that the perceived similarity is based on the ornamental features of the design." *Id.* at 1405 (quoting *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 825 (Fed. Cir. 1992)). *Richardson* did the same for a multi-function carpentry tool. The court identified the elements whose existence and arrangement were dictated by function: the handle had to be the longest arm for leverage, the jaw had to be opposite the hammer head so the tool could be used as a step, the crowbar had to be at the end of the handle to reach into narrow spaces, and the hammer head had to be flat to deliver force. 597 F.3d at 1294. It held that the district court "properly factored out the functional aspects of Richardson's design as part of its claim construction." *Id.* at 1293.

The examples share a structure. What was identified as functional in each case was the existence of an element and its position relative to the others: a tail and fins on a ball, a hammer and a pry bar at opposite ends of a handle. That is the element's concept. Function can dictate a concept. It can require that a trigger exist, that a jaw be opposite the head, that a beverage holder have a round opening. The cases identify the concept, and they set it aside, in the sense that resemblance between two products at the level of the concept does not count toward infringement.

2.10 Setting Aside Does Not Mean Removing, Because the Designs Are Compared as a Whole

The comparison for infringement is of the designs as a whole. *Gorham* asked about "the effect of the whole design," 81 U.S. at 530, and *Egyptian Goddess* confirmed that the ordinary observer test is applied to the overall design. 543 F.3d at 677. A claim construction that removed elements from the design would leave the jury comparing something other than the design, and the Federal Circuit has repeatedly said that this is not what happens. *Richardson* itself, the case that approved the phrase

"factored out," warned in the same opinion that "discounting of functional elements must not convert the overall infringement test to an element-by-element comparison." 597 F.3d at 1295 (describing *Amini*, 439 F.3d at 1372). And the *Richardson* court decided the infringement question by looking at the shapes of the very elements it had identified as functional: the tapered hammer head, the streamlined crowbar, the triangular neck with rounded surfaces, and the smoothly contoured handle of the accused tool gave it an overall effect different from the patented design. *Id.* at 1295-96. The elements were not removed. Their shapes decided the case.

Ethicon made the point explicit. Discussing *Richardson* and *OddzOn*, the court explained that the functional elements of the carpentry tool "were thus outside the scope of the design claim," but that "[t]his did not mean, however, that the design claim had no scope. Rather, the claim was limited to the ornamental aspects of these functional elements. In particular, the scope of the claim encompassed, among other ornamental aspects, the shape of the hammer head, the diamond-shaped flare of the crowbar and the top of the jaw, the rounded neck, the undecorated handle, and the orientation of the crowbar relative to the head of the tool." 796 F.3d at 1333-34. Applying the same rule to its own facts, the court held that the surgical shears patents "do not protect the general design concept of an open trigger, torque knob, and activation button in a particular configuration," but "nevertheless have some scope—the particular ornamental designs of those underlying elements." *Id.* at 1334.

Apple Inc. v. Samsung Electronics Co., 786 F.3d 983 (Fed. Cir. 2015), *rev'd on other grounds*, 580 U.S. 53 (2016), rejected the argument that functional elements are removed. Samsung contended that elements "dictated by their functional purpose" should be ignored in their entirety, and the court answered that "the language 'dictated by their functional purpose' in *Richardson* was only a description of the facts there; it did not establish a rule to eliminate entire elements from the claim scope." *Id.* at 998.

Sport Dimension then held that a district court may not eliminate elements. The district court had construed a personal flotation device claim to exclude the armbands and the side torso tapering entirely. The Federal Circuit held that this was error. "[D]esign patents protect the overall ornamentation of a design, not an aggregation of separable elements," and "[b]y eliminating structural elements from the claim, the district court improperly converted the claim scope of the design patent from one that covers the overall ornamentation to one that covers individual elements." 820 F.3d at 1322. The court then stated its own construction: "the design includes the shape of the armbands and side torso tapering, to the extent that they contribute to the overall ornamentation of the design." *Id.* at 1323. The word "shape" is the court's. The court then added the instruction that has caused difficulty since: the factfinder "should not focus on the particular designs of these elements when determining infringement, but rather focus on what these elements contribute to the design's overall ornamentation." *Id.* at 1323. *Lanard* confirmed the rule in 2020, affirming a claim construction in which the district court "meticulously acknowledged the ornamental aspects of each functional element," and stating that under the ordinary observer test "a court must consider the ornamental features and analyze how they impact the overall design." 958 F.3d at 1342-43. And in *Range of Motion* the majority described the

district court as having identified "the functional versus the ornamental aspects of the arms (and the overall design)" rather than having eliminated a structural element, [166 F.4th at 989](#), and stated that functional features are to be considered "to the extent that they contribute to the overall ornamentation." *Id.* at 992.

The principle, then, is that the design compared is the whole design shown in the drawings. Setting aside a functional concept changes what the resemblance between the designs may be attributed to. It does not change what is compared.

2.11 What Is Set Aside Is the Concept, Not the Design

The two preceding principles fit together once the object of the setting aside is identified. This subsection states the reading these materials advance. It is a reading of what the cases did, not a rule any of them announced, and the vocabulary the courts use is not uniform. The courts speak of functional "elements," "aspects," "features," and "general design concepts," and they sometimes say that a functional element is "excluded from the scope" of the claim. These materials use the word "concept" for the functional requirement that an element exist or be arranged as shown, and reserve "shape" or "ornamental treatment" for what the drawings show about the element beyond that requirement. The choice of words is the materials' own. The claim is that, whatever words the courts have used, what they have placed outside the claim has been the requirement and what they have kept inside has been the depicted appearance.

The decisions support that claim. *OddzOn* limited the claim to its overall ornamental visual impression "rather than to the broader general design concept of a rocket-like tossing ball." [122 F.3d at 1405](#). *Ethicon* reversed a district court for "focusing on the general concepts of an open trigger, torque knob, and activation button rather than the ornamental designs adorning those elements," [796 F.3d at 1332](#), and held that the patents did not protect "the general design concept" of those elements in a particular configuration but did protect "the particular ornamental designs of those underlying elements." *Id.* at 1334. *Richardson* set aside the requirements that a hammer be opposite a jaw and a crowbar be at the end of a long handle, and then decided the case on the shapes. [597 F.3d at 1294-96](#). *Sport Dimension* found that the armbands and tapering served a functional purpose and then held that "the design includes the shape of the armbands and side torso tapering." [820 F.3d at 1323](#). *Apple v. Samsung* held that *Richardson* did not establish a rule to eliminate entire elements. [786 F.3d at 998](#). And the most recent decision, though nonprecedential, follows the same pattern. In *Jacki Easlick, LLC v. CJ Emerald*, the district court had written that "the concept of two attached hooks must be excluded from the scope of the claimed design," No. 2:23-cv-2000, 2024 WL 310125, at *5 (W.D. Pa. Jan. 26, 2024), and had held that the patent protected the shape of the hooks, the flare of the top hook's tip, the 90-degree offset, and the spheres on the ends of the hooks. *Id.* The Federal Circuit affirmed. It described the district court as having determined that "the Tote Hanger's two attached hooks and vertical configuration are functional elements that must be 'excluded from the scope of the claimed design,'" and as having determined that the patent protects "the shape of the hooks, the flare out of the top hook's

tip, the 90-degree offset at the top and bottom hooks, and the spheres on the end of each hook," and as having "separated the Tote Hanger's functional and ornamental elements" before comparing the designs. *Jacki Easlick, LLC v. CJ Emerald*, Nos. 2024-1538, 2024-1826, slip op. at 7 (Fed. Cir. Aug. 14, 2026) (nonprecedential). What was excluded was the existence of two hooks and their vertical arrangement. What stayed was every shape the drawings gave them. The court used the word "elements" for what was excluded; the substance of what it excluded was the requirement.

On this reading, the objection that factoring out violates *Gorham*'s whole-design rule loses its force, and not merely because factoring out is said to occur at claim construction while the comparison of the whole occurs later. It loses its force because nothing visual is ever removed. What is set aside is a concept, and a concept was never part of the claimed design to begin with.

A design patent claim is the drawings. *Egyptian Goddess*, 543 F.3d at 679 (design patents "typically are claimed as shown in drawings"). The drawings show shapes. A design patent does not ordinarily protect a broad general design concept apart from the depicted ornamental appearance, which is the point *OddzOn* and *Ethicon* made in those words. A court that identifies a functional requirement and sets it aside has therefore removed nothing the drawings claimed. What the court has done is to state, for the jury's benefit, that a resemblance which exists only at the level of the requirement is a resemblance the patentee never owned. The shapes given to the elements that embody the requirement remain in the drawings, remain in the claim, and remain in the comparison, to the extent they contribute to the overall ornamentation, which is *Sport Dimension*'s phrase for the same idea.

This reading also supplies an interpretation of *Sport Dimension*'s instruction that the factfinder should not focus on the particular designs of the functional elements. If the instruction meant that the shapes of the armbands and the tapering were to be disregarded, it would sit uneasily with the sentence before it, which says that the design includes those shapes, since an element contributes to ornamentation only through its shape. The instruction is better read as a caution against treating the design of any one element as dispositive, which is the element-by-element error *Richardson* and *Amini* warned against. Part 3.4 develops this reading and acknowledges that the court did not explain the sentence.

2.12 The Ordinary Observer Is Familiar With the Prior Art and Compares Under Purchasing Conditions

The infringement comparison is made through the eyes of an ordinary observer, giving such attention as a purchaser usually gives, who is familiar with the prior art. *Gorham*, 81 U.S. at 528; *Egyptian Goddess*, 543 F.3d at 677-78. The prior art matters to functionality for two reasons. First, it supplies the field against which the significance of a functional concept is measured. An observer familiar with tossing balls knows that balls of the claimed type have tails and fins, and will not take that resemblance as a sign that the accused ball is the patented one. The prior art does the same work the functionality finding does, and it often does it more reliably, because a crowded field is a matter of record while a finding of functional necessity requires proof about engineering. *Lanard* shows the two working

together: the district court found that the resemblance between the claimed chalk holder and the accused one stemmed "from aspects of the design that are either functional or well-established in the prior art," and the Federal Circuit affirmed. [958 F.3d at 1343-44](#).

Second, the prior art must be treated the same way the accused design is. If a functional concept is set aside when the claimed design is compared with the accused design, the same concept must be set aside when the claimed design is compared with a prior art reference, whether in the three-way comparison of *Egyptian Goddess* or in an anticipation or obviousness analysis. Otherwise a reference that shares only the functional concept would appear closer to the claimed design than it is. *OddzOn* recognized this on the validity side: prior art "simply showing a ball with a tailshaft and fins, without more, is not sufficient to render the patented design obvious," because "[i]nvalidating prior art must show or render obvious the ornamental features of a patented design." [122 F.3d at 1404](#). The symmetry is developed in Part 3.6.

2.13 Functionality Is a Question of Fact When Raised as an Invalidity Defense; at Claim Construction It Is Currently for the Court, and That Allocation Is Contested

Under current Federal Circuit precedent, the court addresses functionality as part of claim construction, and the construction is reviewed de novo, with any subsidiary factual findings reviewed for clear error. *Sport Dimension*, [820 F.3d at 1320](#); *Lanard*, [958 F.3d at 1341](#); *Range of Motion*, [166 F.4th at 988-89](#). That allocation remains contested. On the denial of rehearing en banc in *Range of Motion*, Judge Cunningham, joined by Judge Hughes, described the court's role as placing signposts that define the claim's boundaries for the jury, of which differentiating the functional from the ornamental aspects is one. Chief Judge Moore, joined by Judge Reyna, would have functionality and ornamentality resolved by the jury as part of infringement, and Judges Stoll and Stark dissented from the denial without opinion. *Range of Motion Products, LLC v. Armaid Co.*, No. 2023-2427, ECF No. 85 (Fed. Cir. Aug. 11, 2026), concurring op. at 5-8; dissenting op. at 1-2. The rest of this subsection sets out the background against which that disagreement arose.

Whether a design is dictated by function is a question of fact. *PHG*, [469 F.3d at 1365](#); *Nordock, Inc. v. Systems Inc.*, [803 F.3d 1344, 1360-61](#) (Fed. Cir. 2015), *vacated on other grounds*, 580 U.S. 1028 (2016). Because a design patent is presumed valid, the challenger must prove functionality by clear and convincing evidence. *L.A. Gear*, [988 F.2d at 1123](#). Trade dress functionality is likewise a question of fact. *Morton-Norwich*, [671 F.2d at 1340](#). Design patent infringement is a question of fact. *Columbia Sportswear North America, Inc. v. Seirus Innovative Accessories, Inc.*, [942 F.3d 1119, 1129](#) (Fed. Cir. 2019).

Claim construction is for the court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996). The Federal Circuit has treated the identification of functional features at claim construction as part of that judicial task. But the extension of *Markman* to functionality determinations has not been separately justified in the design patent decisions, and the district courts have divided on it for more than twenty-

five years. Some resolve functionality as a matter of law at claim construction. *Cheng v. AIM Sports, Inc.*, No. CV 10-3814 PSG (PLAx), 2011 U.S. Dist. LEXIS 42462, at *30 (C.D. Cal. Apr. 14, 2011); *ArtSkills, Inc. v. Royal Consumer Products, LLC*, No. 3:17-cv-1552 (VAB), 2019 WL 1930751, at *16 (D. Conn. May 1, 2019). Others hold that functionality is a question of fact, that the rationale of *Markman* does not apply to it, and that disputed functionality questions should go to the jury. *Black & Decker (U.S.) Inc. v. Pro-Tech Power Inc.*, No. 97-1123-A, 1998 WL 633636 (E.D. Va. June 2, 1998); *180s, Inc. v. Gordini U.S.A., Inc.*, 699 F. Supp. 2d 714, 728 (D. Md. 2010); *Deckers Outdoor Corp. v. Rue Services Corp.*, No. CV 13-6303, 2014 WL 12588481, at *3 (C.D. Cal. Aug. 29, 2014); *Vertical Tank, Inc. v. BakerCorp*, No. 1:18-cv-00145-LJO-JLT, 2019 WL 2207668, at *18-19 (E.D. Cal. May 22, 2019) (considering the *Sport Dimension* and *PHG* factors, finding the record insufficient to resolve several disputed features, and collecting decisions that defer disputed functional and ornamental questions to later proceedings or trial). Still others defer the question to summary judgment or the charge conference. *Depaoli v. Daisy Manufacturing Co.*, No. 07-cv-11778, 2009 WL 2145721, at *5 (D. Mass. July 14, 2009).

The division reached the Federal Circuit in *Range of Motion*, where the majority treated the district court's functionality findings as claim construction, 166 F.4th at 988-91, and the rehearing opinions described above stated the two positions. The principle, then, has two parts. The current rule is that functionality at claim construction is for the court. The contest over that rule is open within the court, and functionality is a fact question in every other setting in which the Federal Circuit has said what kind of question it is. Part 3.7 sets out the allocation these materials recommend.

3. How the Principles Interact

The principles in Part 2 are individually accepted. The difficulty has come from applying them to the wrong question or from applying two of them without noticing that they concern different things. This Part works through the interactions and draws seven conclusions. Where a conclusion is an inference from the decisions rather than a holding, the text says so.

3.1 The Two Questions Differ in Subject, Standard, Burden, and Decisionmaker

The validity question and the claim scope question can be stated side by side. The validity question asks whether the design as a whole is dictated by function. Its subject is the overall appearance. Its standard is dictation, meaning that no alternative overall design would perform the function. Its burden is on the challenger, by clear and convincing evidence, because the patent is presumed valid. Its decisionmaker is the factfinder, because functionality in this sense is a question of fact. Its consequence, if answered against the patentee, is that the patent is invalid.

The claim scope question asks whether a particular feature of a valid design exists, or is arranged as shown, because the article requires it. Its subject is a feature, not the whole. Its standard is also dictation, but applied to the feature's concept rather than to the overall appearance. It carries no burden

of proof in the ordinary sense, because it is not a claim or defense but a step in defining what the claim covers; in practice the party asserting that a feature is purely functional must persuade the court of it. Its decisionmaker, under current Federal Circuit practice, is the court at claim construction, subject to the dispute described in Part 2.13. Its consequence is that resemblance flowing only from the feature's concept does not count toward infringement, while the feature's shape remains in the comparison.

Laid out this way, the two questions share one word and almost nothing else. The evidence that answers one does not necessarily answer the other. A showing that every element of a design performs a function does not show that the design as a whole is dictated, because the elements might be arranged and shaped in many ways. Conversely, a finding that the design as a whole is ornamental does not mean that none of its features is purely functional; *OddzOn* and *Richardson* involved valid designs with functional concepts in them. The first conclusion, then, is that a court confronted with a functionality argument should identify which question is being asked before deciding how to answer it, and should decline to let an answer to one question serve as an answer to the other.

3.2 The Alternative Designs Test Answers Both Questions, at Different Levels

The alternative designs test is the principal evidence on both questions, and it is the same test in each. The difference is the level at which it is applied. For validity, the question is whether the article could be designed to look different as a whole and still perform its function. If so, the design as a whole was a choice and the patent is not invalid for lack of ornamentality. For claim scope, the question is whether the particular element could look different, or sit elsewhere, and the article would still work. If it could, the element's appearance was a choice, and the element's shape carries full weight in the comparison. If it could not, the element's concept is purely functional and is set aside, although its shape, to the extent the drawings show a shape the requirement did not dictate, still stays in.

Applying the test at the right level resolves a good deal of the confusion. In *Range of Motion*, the district court found the clamshell shape of the arms functional, relying on a utility patent that claimed arms "shaped and dimensioned to adjustably clamp a limb," on an affidavit describing the clamshell appearance of the arms as enabling whole-body massage, and on marketing that said the clam-shaped arms provided leverage. *Range of Motion Products LLC v. Armaid Co.*, No. 1:22-cv-00091, 2023 WL 5530768, at *7-8 (D. Me. Aug. 28, 2023). None of that evidence answered the claim scope question at the right level. That the arms must clamp a limb is a concept; it says that there must be two arms and that they must close on the limb. That the arms provide leverage says that they must be long enough to provide it. Neither says that the arms had to have the particular curve, thickness, ridged outline, and proportion the drawings show. The right question was whether arms of a different shape would clamp a limb and provide leverage. The record apparently showed that they would, since the district court itself described the ridged outline that includes the arms as largely ornamental, and the majority acknowledged that the intrinsic evidence did not unambiguously establish that the shape of the arms was ornamental, which is another way of saying that the evidence did not establish that it was purely

functional either. 166 F.4th at 989-91. Applied at the level of the element's concept, the alternative designs test would have set aside the concept of two clamping arms and left the shape of the arms in the comparison.

The second conclusion is that the alternative designs test should be asked of the concept, not the shape, at claim construction. The question is not whether this shape is functional. It is whether the article requires an element of this kind in this place, and if so, whether the shape shown was the only shape that would do. The first half of the question usually has a yes answer for a useful article. The second half almost never does, and when it does not, the shape stays in at full weight.

3.3 The *Berry Sterling* Factors Were Built for the Validity Question

The current rule. The *Berry Sterling* factors were developed for the whole-design validity inquiry, and until 2016 the Federal Circuit had applied them only there. Part 2.7. *Sport Dimension* then stated that "[a]lthough we introduced these factors to assist courts in determining whether a claimed design was dictated by function and thus invalid, they may serve as a useful guide for claim construction functionality as well." 820 F.3d at 1322. *Range of Motion* applied that statement, and rejected the argument that the existence of alternative designs is a threshold that bars consideration of the other factors. 166 F.4th at 990. A district court may therefore consult the factors at claim construction, and district courts have treated them as the governing framework there. *Vertical Tank*, 2019 WL 2207668, at *18; *ArtSkills*, 2019 WL 1930751, at *16. In *Range of Motion* the district court organized its claim construction around them.

The recommended approach. These materials recommend a narrower use than the one *Range of Motion* affirmed: employ the factors to identify what functional considerations a feature implicates, but do not treat them as a scorecard that strips the feature's depicted ornamental treatment from the whole-design comparison. The reasons follow.

The mismatch between the factors and the claim scope question is structural, and it can be shown factor by factor. Whether the protected design represents the best design is a question about the design as a whole, and it is a trade dress question about competitive need; it says nothing about whether the shape of a particular element was chosen. Whether alternative designs would adversely affect the utility of the article is the alternative designs test with a trade dress qualification, asking not whether alternatives work but whether they work as well; applied to an element, it converts the categorical question whether the element could look different into a graduated question whether it could look different without cost. Whether there are concomitant utility patents asks whether the mechanism is useful, which is never in doubt; a utility patent claiming arms that clamp a limb proves that clamping arms are useful and proves nothing about whether the arms could have a different profile. Whether advertising touts particular features as having specific utility asks what the patentee said about the product, which is evidence that the feature does something, not evidence that its shape was dictated.

And whether there are any elements clearly not dictated by function is a question whose answer, at claim construction, is always yes for a design that has passed validity, because if there were none the patent would be invalid.

Sport Dimension's own application of the factors shows the output they produce. The court reviewed the district court's findings that the armbands and tapering represented the best available design, that a co-pending utility patent disclosed them and touted their utility, and that the advertising promoted their utility, and it concluded that the factors "indicate that the design patent's armbands and side torso tapering serve a functional purpose." 820 F.3d at 1322. Serving a functional purpose is the de facto sense of the word that *Avia* distinguished from dictation. The factors, applied to elements, told the court what nobody disputed, that the armbands do something, and did not tell the court whether their shape was chosen. The court then had to add, from outside the factors, that the shape of the armbands remained in the design.

The factors, in other words, produce a graduated assessment of how much a feature has to do with utility. That is the right output for the validity question, where the court is weighing the whole design and asking whether the balance tips toward dictation. It is the wrong output for the claim scope question, which is categorical: either the article requires this element in this place or it does not, and either the shape shown was the only shape that works or it was not. When a graduated tool is used to answer a categorical question, the result is a finding that a feature is "largely" or "primarily" functional, and a court that has made such a finding has no principled way to say what the jury should do with it. That is the point at which it becomes, in Chief Judge Moore's words, entirely unclear what happens next. The problem is not that the court has weighed the evidence wrongly. It is that the court has been handed a tool that produces the wrong kind of answer.

The third conclusion is that the factors do their proper work in the validity inquiry, and that at claim construction they should be used, if at all, to identify what functional consideration a feature implicates and not to grade the feature's shape. That is a recommendation, not a holding; *Sport Dimension* permits the factors at claim construction and *Range of Motion* applied them there. The recommendation is supported by the lineage of the factors, by *Sport Dimension*'s own need to add the shape of the armbands back into the design after applying them, by the fact that *Richardson*, the leading claim construction case, did not use them, and by the fact that *Ethicon*, which discussed them at length, did so only in the validity portion of its opinion and then decided the claim scope question by asking whether the elements had particular ornamental designs. 796 F.3d at 1329-31, 1333-34. A district court can stay within *Sport Dimension* and still follow this recommendation by treating the factors as evidence bearing on whether the element's concept is required, and by declining to use them to remove the element's depicted appearance from the comparison.

3.4 The Concept Goes Out and the Shapes Stay In: *Richardson* as the Worked Example

Richardson is the case most often cited for factoring out, and it is also the case that shows most clearly what factoring out is. The claimed design was a multi-function carpentry tool with a hammer head, a jaw, a crowbar, and a handle. The district court identified what function required: the handle had to be the longest arm, to provide leverage; the jaw had to be opposite the hammer head, so the tool could be used as a step; the crowbar had to be at the end of the handle, to reach into narrow spaces; and the hammer head had to be flat, to deliver force. 597 F.3d at 1294. Each of these is a statement about existence or arrangement. Together they describe the concept of the tool: a long handle with a hammer and a jaw at one end and a crowbar at the other. That concept was set aside. The accused tool shared it, and the resemblance at that level did not count.

What remained was everything the drawings showed that the concept did not require, and *Ethicon* catalogued it: "the shape of the hammer head, the diamond-shaped flare of the crowbar and the top of the jaw, the rounded neck, the undecorated handle, and the orientation of the crowbar relative to the head of the tool (which was not driven by functional considerations, unlike the orientation of the hammer head and crowbar at opposite ends of the handle)." 796 F.3d at 1333-34. Note what is on that list. The shape of the hammer head is on it, even though the hammer head had to be flat; flatness is the concept, and the rest of the head's shape is the design. The flare of the crowbar is on it, even though the crowbar had to be at the end of the handle. The orientation of the crowbar relative to the head is on it, because the concept required the crowbar to be at the opposite end but did not require it to face a particular way. And the *Richardson* court decided the infringement question on exactly these features, finding that the accused tool's tapered hammer head, streamlined crowbar, triangular neck, and smoothly contoured handle gave it a different overall effect. 597 F.3d at 1295-96.

The worked example produces a working rule. For each element the court identifies as functional, the court then asks what is it about the element that function requires. The answer is usually that the element must exist and must sit in a certain relation to the others, and sometimes that it must have a particular property, such as flatness or a round opening. That is the concept, and it goes out. What the drawings show about the element beyond that is the design, and it stays in to the extent it contributes to the overall ornamentation. The flat face of the hammer goes out; the shape of the head stays in. The requirement of two clamping arms goes out; the curve and outline of the arms stay in. The existence of two attached hooks and their vertical arrangement go out; the shape of the hooks, the flare of the tip, the offset, and the spheres on the ends stay in, which is the construction the district court adopted in *Jacki Easlick* and the Federal Circuit affirmed. Slip op. at 7.

This is also the reading of *Sport Dimension*'s instruction that reconciles it with the rest of the opinion. The instruction said the factfinder "should not focus on the particular designs of these elements when determining infringement, but rather focus on what these elements contribute to the design's overall ornamentation." 820 F.3d at 1323. The sentence immediately before it stated that "the design includes

the shape of the armbands and side torso tapering, to the extent that they contribute to the overall ornamentation of the design." *Id.* If "particular designs" meant the shapes of the armbands and the tapering, the instruction would tell the jury to disregard the very thing the preceding sentence says the design includes, because an element contributes to overall ornamentation only through its shape. The instruction makes sense if "focus on the particular designs" means what *Amini* and *Richardson* meant by element-by-element comparison: examining the armbands in isolation, comparing them with the accused armbands in isolation, and letting that comparison decide the case. The jury should not do that. It should ask what the armbands, with the shape the designer gave them, contribute to the overall appearance of the flotation device, and compare that overall appearance with the accused one. So read, *Sport Dimension* is consistent with *Ethicon* and with its own holding that elements may not be eliminated. This reading is an inference; the court did not explain the sentence. But the alternative reading makes the opinion contradict itself, and a reading that avoids that result is to be preferred.

The fourth conclusion is that, on the reading these materials advance, "factoring out" describes the removal of a functional requirement from the basis on which resemblance may be found, and not the removal of a shape from the design. Because a general design concept is not what the drawings claim, this removal changes nothing about what the jury compares. It changes only what the jury may attribute the resemblance to. The vocabulary can be kept, provided its object is stated correctly: the court factors out the requirement, not the element's depicted appearance. The cases do not prescribe this formula, but *Richardson*, *Ethicon*, *Sport Dimension*, *Apple*, and *Jacki Easlick* are each consistent with it, and none is consistent with the alternative under which the shape of a functional element is disregarded.

3.5 The Patentee's Paradox and Its Resolution

The concept principle also resolves a puzzle that arises when the patentee, rather than the accused infringer, argues functionality. The usual case is the accused infringer arguing that a shared feature is functional, so that the resemblance it produces will not count. But a patentee may want to argue that a feature is functional when the accused design's version of that feature looks different, so that the difference will not count either. The puzzle is that if the accused design's version looks different and still works, an alternative design exists, which means the feature was not dictated by function, which means it is not functional. The patentee's argument appears to defeat itself.

It does not, once the concept is separated from the shape. The patentee's argument, properly stated, is that the concept is functional: the article must have this element in this place. That argument is not defeated by the accused design's different shape, because the accused design also has the element in that place. What the accused design shows is that the shape was not dictated. And that is the correct result: the concept is shared and goes out, and the two shapes, both of which were choices, are compared as part of the whole. The patentee gains nothing from the functionality argument beyond

what the concept principle gives everyone, which is that resemblance at the level of the concept does not count. The patentee does not get to have the difference in shape disregarded, because the difference in shape is exactly the kind of thing the observer compares.

The same analysis answers a related argument sometimes made by accused infringers, that a patentee who argues a feature is functional to distinguish the prior art in prosecution, or to explain a difference from an accused product, has conceded that the feature carries no weight. The concession, if it is one, reaches the concept. It does not reach the shape, unless the patentee said something about the shape. Prosecution statements limit the scope of a design patent when they clearly and unmistakably distinguish the claimed design from the prior art. *Top Brand LLC v. Cozy Comfort Co.*, 143 F.4th 1349 (Fed. Cir. 2025). A statement that a feature exists to perform a function is a statement about the concept. A statement that a feature was shaped as it is because only that shape would work is a statement about the shape, and it is the kind of statement that can surrender reliance on a particular depicted appearance, proportion, placement, or configuration in a later comparison.

3.6 The Prior Art Is Treated the Same Way

If a functional concept is set aside when the claimed design is compared with the accused design, consistency requires that it be set aside when the claimed design is compared with the prior art. The ordinary observer is one observer, with one set of knowledge, and the observer does not attribute resemblance to a functional concept in one comparison and to design in the other. This has three consequences.

In the three-way comparison of *Egyptian Goddess*, the prior art is used to show what the observer's attention is drawn to. A prior art reference that shares the functional concept with the claimed design shows only that the concept was known, which the functionality finding has already established. A reference that shares the claimed design's shapes shows that the shapes were known, which narrows the range of resemblance that will deceive. The two showings are different, and a court that lets a reference sharing only the concept stand in for a reference sharing the shapes has let the functional concept do work at the prior art stage that it was denied at the accused design stage.

In anticipation and obviousness, the same symmetry applies. *OddzOn* held that prior art showing a ball with a tail and fins, without more, does not render the claimed design obvious, because invalidating prior art must show or render obvious the ornamental features. 122 F.3d at 1404. A primary reference that resembles the claimed design only at the level of a functional concept is not a visually similar reference, and a challenger who relies on it is relying on the concept the patentee never claimed. This discussion addresses only the role of functional and ornamental resemblance in the prior art comparison. It does not preserve the former *Rosen-Durling* test for design patent obviousness, which the en banc court overruled in *LKQ Corp. v. GM Global Technology Operations LLC*, 102 F.4th 1280 (Fed. Cir. 2024), in favor of the general § 103 framework of *Graham* and *KSR*; under *LKQ* a primary reference is still required and is analyzed for its visual similarity to the claimed design, and the point

made here is that resemblance at the level of a functional concept is not the visual similarity the analysis requires. The companion materials on obviousness after *LKQ* address the framework in full. The earlier series of articles from which these materials grew observed this in the context of *Apple v. Samsung*, where a tablet design's large screen was factored out at claim construction as functional and then, at the preliminary injunction stage, a prior art tablet whose principal resemblance to the claimed design was its large screen was treated as creating a substantial question of obviousness. If the screen's concept was set aside for infringement, it should have been set aside for validity, and the reference would have looked much less like the claimed design.

The third consequence runs the other way and favors accused infringers. The prior art often does the work a functionality finding would do, and does it without any finding about engineering. If every ball in the field has a tail and fins, the observer familiar with the field will not be deceived by that resemblance whether or not the tail and fins are functionally required. *Lanard* is the example: the resemblance between the claimed and accused chalk holders stemmed from features that were "either functional or well-established in the prior art," and both grounds pointed the same way. 958 F.3d at 1343. A court that has a crowded prior art record may find that the functionality finding adds little, and a court that is uncertain whether a feature is purely functional may find that the prior art supplies a firmer ground for the same instruction. Part 4.4 proposes an instruction for that situation.

The fifth conclusion is that whatever is set aside as a functional concept is set aside in every comparison the observer makes, and that the prior art can serve as an alternative or additional basis for telling the jury that resemblance at the level of a shared concept does not show infringement.

3.7 Who Decides

The current rule is the court addresses functionality as part of claim construction, and the Federal Circuit reviews the construction de novo. *Sport Dimension*, 820 F.3d at 1320; *Range of Motion*, 166 F.4th at 988-89. The rehearing opinions in *Range of Motion* show the court divided over whether that rule should continue, but it is the rule. Part 2.13.

The recommended approach. The last interaction concerns the decisionmaker, and the principles point to a division that tracks the categorical and graduated distinction drawn in Part 3.3. *Egyptian Goddess* authorized the court to distinguish features that are ornamental from those that are "purely functional." 543 F.3d at 680. A determination that a feature is purely functional is categorical: the article requires this element in this place, and there is no ornamental aspect to that requirement. Where the evidence permits that determination to be made without weighing disputed facts, it is the kind of determination a court can make as a matter of law, in the way *Markman* permits a court to construe a claim term. Where the evidence is disputed, whether alternatives exist, whether a utility patent claims the shape or only the mechanism, whether advertising describes the shape or only the function, the determination turns on facts, and under the ordinary summary judgment standard the court may make it only if no reasonable jury could find otherwise.

What the court may not do, on this reading, is the thing the *Berry Sterling* factors invite it to do: weigh the evidence and conclude that a feature is "largely" functional, and then remove or discount the feature's shape on that basis. That is a graduated judgment about how much a shape contributes to the overall appearance, and graduated judgments about visual impression are the core of what *Gorham* assigns to the factfinder. *Markman*'s rationale does not reach them. The Supreme Court assigned claim construction to judges because it is the interpretation of a written instrument, a task judges do better than jurors. 517 U.S. at 388-89. A design patent claim is a drawing, and the question whether the arched shape of a therapy device could have been different is not a question about the meaning of words. The Court has said, in the trademark context, that "[w]hen the relevant question is how an ordinary person or community would make an assessment, the jury is generally the decisionmaker that ought to provide the fact-intensive answer." *Hana Financial, Inc. v. Hana Bank*, 574 U.S. 418, 425 n.2 (2015). The inconsistency in current practice is that the same question, whether a feature is dictated by function, is a jury question when it is raised as an invalidity defense and a judge question when it is raised at claim construction, with the same evidence and the same kind of judgment in each.

The sixth conclusion, then, is that the court may identify a purely functional concept as a matter of law where the record permits; that where the record is disputed the better course is for the court to make the determination only under the summary judgment standard or to leave it to the jury with an instruction; and that the graduated question how much an element's shape contributes to the overall appearance belongs to the jury as part of the whole-design comparison. This is the position the author's firm advanced as amicus in *Range of Motion*, and it is close to the position of the dissenting judges on rehearing. It is not the current rule, which treats the functionality determination at claim construction as the court's. The materials in Part 4 are drafted to work under either allocation.

3.8 Summary of Conclusions

The seven conclusions can be stated together. Some restate current law and some are recommendations, and the summary marks which is which. First, functionality asks two questions, and the court should identify which is being asked before answering; that follows from the cases. Second, the alternative designs test answers both, applied to the whole design for validity and to the element's concept for claim scope; the first half is the law and the second half is the recommended way to apply it. Third, the *Berry Sterling* factors were built for the validity question, *Sport Dimension* permits them at claim construction, and these materials recommend that they not be used there to grade the shapes of elements. Fourth, on the reading advanced here, factoring out removes a functional requirement from the basis on which resemblance may be found and does not remove a shape from the design; the cases are consistent with that reading and do not prescribe it. Fifth, the same treatment applies to the prior art, which can also serve as an independent basis for the instruction. Sixth, the current rule is that the court decides functionality at claim construction; the recommended approach is that the court decide only the categorical question, and only where the record permits, leaving graduated questions about the contribution of a shape to the jury. Seventh, and following from all of these, the jury should be told

what the functional requirement is and that resemblance flowing only from that requirement does not show infringement, and should be told in the same instruction that the depicted ornamental treatment of those elements remains part of the design it compares as a whole. Part 4 turns these conclusions into procedure.

4. Application at Each Stage

This Part states what a court should do with functionality at each stage of a design patent case, from the pleadings to the charge. The proposals follow from the conclusions in Part 3. Where current Federal Circuit practice differs, the text says so and offers a version that works within current practice.

4.1 The Pleadings and Motions to Dismiss

Functionality has two pleading consequences. As an invalidity defense, lack of ornamentality is an affirmative defense that must be pleaded, and it is rarely resolved on the pleadings because it is a question of fact on which the challenger bears a clear and convincing burden. As a claim scope matter, functionality has begun to appear in motions to dismiss, where courts applying the plainly dissimilar screen of *Egyptian Goddess* have discounted shared functional features on the face of the complaint and found the remaining resemblance insufficient. The practice is questionable for the reasons given in Part 3.7: a determination that a feature is purely functional requires evidence about alternatives, and a complaint that attaches the patent and pictures of the accused product does not supply it. A court asked to discount a feature at the pleading stage should require that the feature's functional concept be apparent from the patent itself, as it might be where the patent's title and figures show an article that plainly requires the element, and should otherwise defer the question.

The patentee's pleading choices matter for a different reason. A complaint that describes the claimed design by what its features do, rather than by how they look, supplies evidence the accused infringer will use at both stages. The same is true of the infringement contentions and the expert reports. Each of these documents should describe the claimed design by its appearance.

4.2 Claim Construction

Egyptian Goddess held that a district court has a duty to construe a design patent claim but 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 claimed design," because of "the risk of placing undue emphasis on particular features of the design and the risk that a finder of fact will focus on each individual described feature in the verbal description rather than on the design as a whole." 543 F.3d at 679-80. The court then listed things a trial court could usefully do instead, including "distinguishing between those features of the claimed design that are ornamental and those that are purely functional." *Id.* at 680. The construction proposed here follows that instruction literally. The claim is construed as

the design shown in the drawings. The court then identifies, in a sentence or two, the concept that function requires, and states that the shapes given to the elements embodying that concept remain part of the claimed design. Nothing else is said.

The district court constructions collected during the preparation of these materials show the range of current practice, and some of them show the proposal already being used. In *Lifted Ltd. v. Novelty Inc.*, No. 16-cv-03135-PAB-GPG, 2020 WL 2747814, at *15-16 (D. Colo. May 27, 2020), the court found that only the central recess was purely functional, because its size and shape were dictated by the dimensions of a standard lighter, construed the claim as the design shown in Figures 1 through 7, and added that "[a]ny purely functional features, such as the size and shape of the central lighter recess, should not be considered in determining infringement, except to the extent that those features contribute to the overall appearance of the claimed design."

That is the model, with one revision. The court should have named the concept, which is the existence of a recess sized to hold a standard lighter, and should have stated the rest of the construction affirmatively rather than as an exception. Revised in that way, the construction would read:

"The claim is the ornamental design for a lighter holder and tool as shown in Figures 1 through 7. For the article to perform its function, it must have a central recess sized to hold a standard lighter, and the design patent does not cover that requirement. The shape, proportions, and surface appearance that the drawings give to the recess, and to the surfaces surrounding it, are part of the claimed design and are considered in determining infringement to the extent they contribute to the overall appearance of the design."

The *Lifted* construction tells the jury that the recess is not considered and then lets it back in by exception, which invites the jury to treat the recess as outside the design. The revised construction tells the jury that the requirement is not covered and that the appearance of the recess is part of the design. The fit to a standard lighter is the requirement; what the drawings show beyond that fit is the design. The revision also narrows what the court found functional. The court said the size and shape of the recess were dictated by the lighter. On the reading these materials advance, only the fit was dictated, and anything the drawings show about the recess that the fit did not require stays in the comparison.

In *Lanard Toys Ltd. v. Toys "R" Us-Delaware, Inc.*, 2019 WL 1304290 (M.D. Fla. Mar. 21, 2019), *aff'd*, 958 F.3d 1337, the court relied on the drawings, identified the functional purpose of each element, and then, in the Federal Circuit's words, "meticulously acknowledged the ornamental aspects of each functional element," including the columnar shape of the eraser, the grooved appearance of the ferrule, and the straight taper of the conical piece. 958 F.3d at 1342-43. That is the concept and shape distinction applied element by element, and the Federal Circuit affirmed it as following the court's directives "to a tee." *Id.* at 1342.

In *Cheng v. AIM Sports*, the court treated the recoil-groove design of a firearm rail, which was required for mounting compatibility, as dictated by necessity and outside the scope of the design patents, while retaining the other depicted features of the rail in the construction. 2011 U.S. Dist. LEXIS 42462, at *30. The compatibility requirement is a concept, and the construction set it aside without removing the rest of the rail.

And in *Jacki Easlick*, the district court held that "the concept of two attached hooks must be excluded from the scope of the claimed design" while the patent protected the shape of the hooks, the flare of the top hook's tip, the 90-degree offset, and the spheres on the ends of the hooks. 2024 WL 310125, at *5. The Federal Circuit affirmed in a nonprecedential opinion, describing the construction as having identified the two attached hooks and vertical configuration as functional elements excluded from the scope of the claim and having "separated the Tote Hanger's functional and ornamental elements" before the comparison. Slip op. at 6-7. The vocabulary was exclusion of elements; the substance was exclusion of the existence and arrangement of the hooks with every depicted shape retained. That construction is as close as the Federal Circuit has come to approving the form proposed here. Two cautions attach to it. The decision is nonprecedential and reviewed a preliminary injunction for abuse of discretion, and the court declined to reach the appellee's argument that the 90-degree orientation was itself functional, so it did not decide where the line between arrangement and shape falls for that feature. *Id.* at 7 n.2. The author's article on the substantially the same standard criticizes other aspects of the district court's analysis in that case; the claim construction was not among them.

Other constructions go further than the proposal permits. In *Covves, LLC v. Dillard's, Inc.*, No. 2:18-cv-08518-RGK-AFM, 2019 WL 8227455, at *6 (C.D. Cal. Dec. 20, 2019), the court applied the *Inwood* trade dress formulation, found that the innermost ring of an inflatable beverage holder was functional because beverage containers are round, and construed the claim "excluding the inner ring shape." The concept that a beverage holder must have a round opening is functional. The shape of the ring, its width, its profile, and its proportion to the rest of the holder, is not, and the construction excluded it. In *ArtSkills*, the court treated the functional and ornamental distinction as a critical part of claim construction and construed three display board claims as limited to "the ornamental aspects of the design," followed by a list of the specific features the court considered ornamental: the configuration of linear segments, the shape and position of the header slots, the size and shape of the rounded corners, and the dimensions and form of the header and adhesive panels. 2019 WL 1930751, at *16-17. A list of ornamental features is the verbal description *Egyptian Goddess* warned against, and it carries the risk the court identified: the jury will compare the listed features rather than the design. The proposal here is to name the concept that goes out rather than the features that stay in, because the concept can be stated in a sentence and the features cannot be stated without narrowing the claim to the list.

The form of construction proposed here, for a design in which the court has found a purely functional concept, is as follows. The claim is the ornamental design for the article as shown in the figures. The court has determined that, for the article to perform its function, it must have an element of a stated

kind in a stated place, and the design patent does not cover that requirement. The shapes, proportions, and surface appearance that the drawings give to that element are part of the claimed design. The construction should stop there. Where the record does not permit the court to find a concept purely functional as a matter of law, the construction should say that the claim is the design as shown in the figures and that the parties' dispute about the functional character of a stated element will be addressed in the jury instructions. Where a court is bound to apply the *Berry Sterling* factors under *Sport Dimension*, it can do so within this form by using the factors to decide whether the concept is required, and by declining to use them to grade the shape.

4.3 Summary Judgment

The combined effect of an aggressive claim construction and the plainly dissimilar screen has been to remove design patent infringement from the jury in a large share of cases. The mechanism is described in the author's article on the substantially the same standard and is not repeated here. What these materials add is the point at which the functionality doctrine enters that mechanism. A construction that excludes an element's shape reduces the design the court compares at summary judgment, and the reduced design is then more easily found plainly dissimilar from the accused one. A construction that sets aside only the concept does not have that effect, because the shapes remain in the comparison and the question whether the overall appearance is substantially the same remains one on which reasonable jurors can differ.

A court deciding a summary judgment motion in a case with a functionality issue should therefore ask three questions in order. First, has the concept the court identified as functional been properly separated from the shapes of the elements embodying it, so that the comparison is of the whole design and not of a residue? Second, is the resemblance the patentee relies on a resemblance at the level of the concept only, in which case *OddzOn* requires the patentee to show that the perceived similarity rests on ornamental features, or is it a resemblance in the shapes themselves, in which case the patentee has made the showing? Third, taking the whole design with the concept set aside, could a reasonable observer familiar with the prior art find the overall appearances substantially the same? *Range of Motion* shows what happens when the first question is skipped. The majority accepted that the designs "share a 'broad design concept'" and "at a conceptual level . . . look quite similar," and then held that most of the similarities were between functional features and that the remaining differences made the designs plainly dissimilar. 166 F.4th at 992. Had the shapes of the arms been kept in the comparison, the resemblance the court called conceptual would have been a resemblance in shape, and the question would have been for the jury.

4.4 The Jury Instructions

The jury charge is where the doctrine has done the least work and where it is needed most. A bench opinion can describe the discounting of a functional element in a paragraph, as *Richardson* did. A jury must be told in a few sentences how to account for a functional concept without losing the design. The

instructions below are drafted for four situations. Each is followed by a short explanation of what each sentence does and why. The instructions assume the court has already given the standard ordinary observer instruction, including that the observer is familiar with the prior art and that the comparison is of the designs as a whole, and they are meant to be given immediately after it.

These are proposed instructions, not approved model instructions. No court has given them and the Federal Circuit has not reviewed language of this kind; the one appellate decision on a functionality charge, *Apple v. Samsung*, discussed at the end of this Part, approved a charge that left the accounting for functional aspects to the evidence. The instructions are designed to carry into the charge the distinction these materials draw between a functional requirement and the depicted ornamental treatment of that requirement, and they track *Sport Dimension*'s formulation that functional elements remain in the design to the extent they contribute to the overall ornamentation. Counsel should adapt them to the court's claim construction, to the governing circuit precedent, and to the evidence in the case.

A word about what the instructions are trying to do. The problem is to convey two ideas at once: that a resemblance flowing only from a functional requirement does not count, and that the depicted appearance of the element that satisfies the requirement is still part of the design being compared. Existing instructions tend to convey the first and leave the second to inference, which is how a jury comes to think that the element has been removed. The instructions below state both. They also avoid the phrase "factor out," which a lay juror will hear as "leave out."

Instruction 1 is for the ordinary case, in which the court has determined at claim construction that a stated concept is purely functional.

In comparing the claimed design with the accused product, you must keep in mind that a design patent protects the appearance of an article, not the way the article works. Some features of an article must be present, or must be arranged in a certain way, for the article to do its job. The design patent does not give the patent owner the right to exclude others from those features or that arrangement.

I have determined that, for a [name of article] to perform its function, it must have [state the concept: for example, a hammer head at one end of a handle and a pry bar at the other; two arms that close on the limb; a round opening sized to hold a beverage container]. The claimed design does not cover that requirement. If the accused product resembles the claimed design only because it also has [restate the concept], that resemblance by itself does not show infringement, and you should not treat it as evidence that the designs are substantially the same.

However, the patent drawings show [the element or elements] with a particular shape, proportion, and surface appearance, and that appearance is part of the claimed design. In comparing the overall designs, you consider the appearance the drawings give to [the element

or elements] to the extent it contributes to the overall ornamental appearance of the claimed design. In deciding whether the overall appearance of the accused product is substantially the same as the overall appearance of the claimed design, you consider the design as a whole, including the appearance of [the element or elements], and you ask whether an ordinary observer familiar with the prior art would be deceived into believing that the accused product is the claimed design.

You should not compare [the element or elements] separately from the rest of the design and decide the case on that comparison alone. The question is always the overall appearance of the whole design.

The first paragraph states the principle in Part 2.1 in plain terms and gives the jury the reason for what follows. The second paragraph names the requirement the court found functional and states the consequence: resemblance at that level does not count. The phrase "only because" is doing the work; it limits the discount to resemblance that exists at the level of the requirement and nowhere else. The third paragraph is the sentence existing instructions omit. It tells the jury that the depicted appearance of the element is part of the claimed design and is considered to the extent it contributes to the overall ornamental appearance, which is *Sport Dimension's* formulation, 820 F.3d at 1323, and it restates the whole-design comparison with that appearance expressly inside it. A court that accepts the reading in Part 3.4 may prefer a stronger form, stating that the jury must include the shapes in its comparison; the form above is drafted to stay within the language of the decided cases. The fourth paragraph is *Richardson's* and *Amini's* caution against element-by-element comparison, and it is the reading of *Sport Dimension's* instruction about the particular designs of the elements advanced in Part 3.4: the jury should not focus on them in isolation, but it does consider them as part of the whole.

Instruction 2 is for the case in which the court has not resolved the functional character of a feature as a matter of law and submits it to the jury. This instruction is appropriate where the court follows the district court decisions that treat claim scope functionality as a question of fact, or where the court has found the evidence disputed under the summary judgment standard. It works under current Federal Circuit practice as well, because nothing in that practice forbids a court from submitting a disputed fact to the jury with instructions.

The parties disagree about whether [the element] must be present, or must be arranged as it is, for a [name of article] to perform its function. You must decide that question.

An element is required by function if the article would not work without an element of that kind in that place. In deciding this, you should consider whether other designs, with a different element or a different arrangement, would perform the same function. If other designs would work, the element is not required by function. Evidence that [the element] performs a useful purpose, or that it works well, or that the patent owner advertised what it does, does not by itself show that it is required by function, because nearly every part of a useful article performs some purpose. The question is whether the article could work without it.

If you find that [the element] is required by function, then resemblance between the claimed design and the accused product that exists only because both have [the element] does not by itself show infringement, and you should not treat that resemblance as evidence that the designs are substantially the same. Even so, the shape, proportion, and surface appearance the patent drawings give to [the element] are part of the claimed design, and in comparing the overall designs you consider that appearance to the extent it contributes to the overall ornamental appearance of the claimed design.

If you find that [the element] is not required by function, then [the element], including its presence and arrangement as well as its shape, is part of the claimed design, and you consider it as you would any other part of the design.

In either case, you decide infringement by comparing the overall appearance of the whole design with the overall appearance of the accused product, from the viewpoint of an ordinary observer familiar with the prior art.

The second paragraph gives the jury the alternative designs test at the level of the concept, with the caution from *Avia* that performing a function is not the same as being required by function, and with the warning that advertising and usefulness do not answer the question. The third and fourth paragraphs give the consequence of each finding, and the third preserves the shape under either. The instruction does not use the *Berry Sterling* factors, for the reasons in Part 3.3; a court that wishes to reference them can add a sentence that the jury may consider whether there are utility patents or advertising that describe the element's function, provided the jury is told that such evidence bears on whether the element is required and not on whether its shape was chosen.

Instruction 3 is the validity instruction, to be given where the accused infringer asserts that the patent is invalid because the design is not ornamental. It is drafted to make clear that this is a different question from the one addressed in Instructions 1 and 2, and that a finding under those instructions does not decide it.

[Defendant] contends that the design patent is invalid because the claimed design is not ornamental. A design is not ornamental, and the patent is invalid, if the appearance of the design as a whole was dictated by the function of the article, so that the designer had no choice in how the article looked. [Defendant] must prove this by clear and convincing evidence.

In deciding this question you consider the design as a whole, not its individual parts. The fact that some or even many parts of the design perform a function does not make the design as a whole functional. Nearly every part of a useful article performs some function. The question is whether the overall appearance of the design could have been different and the article would still have worked. If other overall designs would have performed the function, then the appearance of this design was a choice, and the design is ornamental. You may consider whether alternative designs exist, whether the patent owner or others hold utility patents on the

article and what those patents claim, what the patent owner's advertising says about the design, and whether any parts of the design are clearly not required by function. A design need not be beautiful to be ornamental, and it need not be visible at all times during the use of the article.

[Where Instruction 1 or 2 has been given:] I have instructed you that [the element] is required by function [or: you may find that [the element] is required by function] for purposes of comparing the designs. That does not mean the design as a whole is not ornamental. A design may include elements that are required by function and still be ornamental as a whole, if the overall appearance was a matter of choice.

The instruction states the whole-design rule of *L.A. Gear* and the dictation standard, places the burden, and gives the jury the alternative designs test at the level of the whole. It lists the *Berry Sterling* considerations in lay terms because this is the question they were built for. The last paragraph is the bridge between the two questions, and it is the sentence most often missing: a jury that has been told an element is functional for infringement purposes needs to be told that this finding does not carry over to validity.

Instruction 4 is for the case in which the court makes no functionality finding and the prior art does the work. It is appropriate where the record shows that the feature in question is common in the field, whether or not it is functionally required, and it may be given in addition to or in place of Instruction 1.

The ordinary observer is familiar with the prior art, meaning the designs for [name of article] that existed before the claimed design. When a feature of the claimed design is common in the prior art, an observer familiar with the prior art is less likely to be deceived by the accused product's having that feature, because the observer knows that many [name of article] have it. When a feature of the claimed design is different from the prior art, the observer's attention is drawn to that feature, and the accused product's sharing that feature is more likely to deceive.

The evidence shows that [name of article] in the prior art commonly have [state the feature]. You should take that into account in deciding whether an ordinary observer familiar with the prior art would find the overall appearance of the accused product substantially the same as the overall appearance of the claimed design. The presence of [the feature] in both designs is part of your comparison, but you should give it the weight an observer who knows that [the feature] is common in the field would give it.

The instruction restates *Egyptian Goddess's* explanation of how the prior art directs the observer's attention, 543 F.3d at 676-78, and applies it to the feature at issue without any finding that the feature is functional. It has the advantage that it requires no proof about engineering and no determination by the court that the feature is purely functional, and it produces the same practical result for a feature that is both functional and common. The last sentence is deliberately about weight rather than exclusion, because the prior art principle, unlike the functional concept principle, has never been stated in categorical terms.

Two further points about the charge. First, whichever instruction is given, the verdict form should ask the ultimate question only: whether the accused product infringes the design patent. A verdict form that asks the jury to make separate findings about the functional or ornamental character of individual elements invites the element-by-element comparison the instructions forbid, and it is unnecessary, because the jury's finding on the functional question in Instruction 2 is a step in its reasoning rather than a separate verdict.

Second, *Apple v. Samsung* is the one Federal Circuit decision that has reviewed a design patent jury charge on functionality, and it supports the approach taken here. Samsung argued that the district court should have excluded from the claim, either at claim construction or in the infringement instructions, elements that were "dictated by their functional purpose," and that such elements should be "ignored" in their entirety. The court rejected the argument: "Our case law does not support Samsung's position." It explained that the claim construction in *Richardson* "did not exclude those components in their entirety. Rather, the claim construction included the ornamental aspects of those components," and it held that "the language 'dictated by their functional purpose' in *Richardson* was only a description of the facts there; it did not establish a rule to eliminate entire elements from the claim scope as Samsung argues." *Apple Inc. v. Samsung Electronics Co.*, 786 F.3d 983, 998 (Fed. Cir. 2015), *rev'd on other grounds*, 580 U.S. 53 (2016). The district court had construed each patent as claiming "the ornamental design" as shown in the figures, the instruction told the jury it "must familiarize yourself with the prior art admitted at trial," and the court held that the instructions as a whole fairly covered the law and that Apple's witnesses had "provided sufficient testimonies to allow the jury to account for any functional aspects in the asserted design patents." *Id.* at 998-1000. The decision thus confirms that elements are not eliminated, that the jury accounts for functional aspects within a whole-design comparison, and that the prior art is part of that comparison. It does not say how the jury should be told to account for functional aspects, because the charge in that case left the point to the evidence. The instructions above are consistent with the holding and supply what the charge in *Apple* left to the witnesses.

4.5 The Bench Trial and the Written Opinion

Where the case is tried to the court, the same principles apply, and the opinion should make three things explicit so that the Federal Circuit can review them separately: what concept the court found functional and why, what shapes the court found to remain in the design, and how the court compared the whole design, with those shapes included, to the accused product. *Richardson* did all three, which is why it is the model even though its vocabulary has caused trouble. The opinion that skips the second step, and proceeds from a functionality finding directly to a comparison of what is left, is the opinion that produces the question what happens next.

5. Practice Points

The two-question structure changes what a practitioner should do at each stage, because the evidence that decides each question is generated long before litigation, and because a position taken on one question has consequences for the other.

5.1 The Design Process

The evidence that answers both questions is evidence of choice. A designer who keeps a record of the alternatives considered and rejected, and of the reasons for the choices made, has created the proof that the design as a whole was not dictated and that the shapes of its elements were chosen. The record should be kept as the design develops, not reconstructed afterward. Developmental sketches and rejected alternatives should be retained with a note of why each was set aside. Where a choice was made for the sake of appearance at some cost in performance or expense, the note should say so, because that is the clearest evidence of a design choice; in *Telebrands Corp. v. Del Laboratories, Inc.*, 719 F. Supp. 2d 283 (S.D.N.Y. 2010), the patentee defeated summary judgment of functionality on an ovoid foot file in part with evidence that the design cost more to produce than alternatives and that the designer had declined to add a notch that would have improved grip because of its effect on appearance. Where the design must satisfy a standard, a regulation, or a mating part, the record should identify what the constraint fixed and what it left open, because the constraint fixes a concept and the designer's treatment of everything else is the design.

The designer should also be alert to the case in which no alternative exists. If the designer cannot think of another design that would perform the function, the design is at risk on the validity question, and the appropriate protection is a utility patent. The function should be defined at a level of breadth that a court will accept; a function defined so narrowly that only the claimed design performs it is a function defined to lose.

5.2 Prosecution and the Record That Travels With the Patent

The prosecution record is evidence on both questions, and it is the patentee's own evidence. Three parts of it deserve attention. First, the title and the figures fix the article and the design, and the examiner's treatment of them under [MPEP § 1504.01\(c\)](#) is the first functionality determination the patent receives. Where the examiner raises lack of ornamentality, the rebuttal evidence the MPEP describes, a declaration explaining the ornamental considerations that entered into the design, advertising that emphasizes appearance, and evidence of alternative designs, is the same evidence that will answer the validity question in litigation, and it should be prepared with that use in mind. Second, prosecution statements can limit the scope of a design patent when they clearly and unmistakably distinguish the claimed design from the prior art. *Top Brand LLC v. Cozy Comfort Co.*, 143 F.4th 1349 (Fed. Cir. 2025), applied argument-based prosecution history disclaimer to design patents on that standard. Counsel should therefore distinguish between statements about a feature's general utility, which bear on

whether the feature's concept is functional, and statements that surrender reliance on a particular depicted appearance, proportion, placement, or configuration, which can narrow the claim. The applicant should distinguish the prior art on appearance and should name the fewest features that carry the distinction. Third, a related utility application is evidence under the *Berry Sterling* factors. Its specification should support the utility claims without describing the visual form as the only form that works, and it should avoid statements that a particular shape is necessary to a result.

Claim scope can also be protected by what the design patent does not say. In *PHG*, the claim contained no limitation as to the size of the label sheet or its compatibility with a standard printer, and the court relied on that in rejecting the argument that the design was dictated by those constraints. 469 F.3d at 1367. In *Berry Sterling*, the container claim contained no height, volume, or stability limitation, and the court relied on that in reversing summary judgment. 122 F.3d at 1455-56. A claim that shows the design without importing the commercial embodiment's dimensions is harder to characterize as dictated by a mating part.

5.3 Matching Parts, Standards, and Regulations

Designs that must match an existing article, or must conform to a standard, present the two questions in their clearest form. If the entire design is fixed by the match or the standard, the design is invalid, and *Best Lock* and *Carletti* are the examples. If only part of the design is fixed, the fixed part is a concept that goes out and the rest is the design, and *Cheng*, where the recoil-groove design required for mounting compatibility went out and the rest of the rail stayed in, is the example. Two strategies follow. Where the claimed design matches a complementary part, the practitioner should consider claiming the two together, at least initially, because the argument that one was dictated by the other is weaker when both were designed at once. *Motorola, Inc. v. Alexander Manufacturing Co.*, 786 F. Supp. 808, 812 (N.D. Iowa 1991), rejected a dictation argument for a battery housing on the ground that the housing and the phone it fit were designed together, so that the housing could not be said to have been dictated by the phone; Judge Newman's dissent in *Best Lock* relied on the case. 94 F.3d at 1569. Where the design conforms to a standard, the practitioner should be able to identify at the outset what the standard fixed and what it did not, because that identification is the claim construction the court will eventually adopt.

5.4 Litigation: Choosing the Question and Living With the Answer

In litigation the first task is to identify which question each functionality argument is directed to and to hold the other side to it. A challenger who argues that the elements of the design each perform a function has made a claim scope argument, not a validity argument, and the response is that the validity question is asked of the whole. A challenger who argues that a utility patent covers the mechanism has offered evidence that the mechanism is useful, and the response is that the question at claim

construction is whether the shape was dictated. A patentee who argues that a feature of its own design is functional, to neutralize a difference in the accused product, has conceded the concept and should be held to the concept alone, as Part 3.5 explains.

The second task is to remember that positions taken on one question have consequences for the other, and that they have consequences in the other proceedings involving the same design. A position that a feature was a free aesthetic choice supports its weight in the infringement comparison and undermines a function-based motivation to combine under *LKQ*. A position that the feature was functionally compelled supports the motivation to combine and invites an argument that the feature deserves no weight in infringement. The same feature cannot be both, and the choice should be made once, with the likely accused products and the likely prior art in view. The companion materials on obviousness after *LKQ* discuss the interaction in more detail.

The third task concerns timing and the decisionmaker. A patentee will usually prefer that disputed functionality questions be treated as questions of fact and reserved for the jury, and the district court decisions in *Black & Decker, 180s, Deckers*, and *Vertical Tank* supply the authority for that position. An accused infringer will usually prefer a determination at claim construction, and *Sport Dimension, Lanard*, and *Range of Motion* supply the authority for that. Whichever way the court goes, both parties should press for a construction that names the concept and preserves the shapes, because that construction produces the cleanest record for appeal, and both should submit proposed instructions in the form of Part 4.4 so that the charge, rather than the construction, is the last word the jury hears on the subject.

The fourth task is the prior art. A functionality argument is often unnecessary where the field is crowded, and it is often weaker than the prior art argument because it requires proof about engineering that the prior art argument does not. An accused infringer with a crowded field should consider whether Instruction 4 gives it what it needs without the risk that a functionality finding will be reversed on appeal. A patentee facing a functionality argument should ask whether the prior art actually shows the feature, because a feature that is functionally required but absent from the prior art is a feature the observer's attention will be drawn to.

6. Conclusion and Scope

Functionality in design patent law is two doctrines that share a name. The validity doctrine asks whether the design as a whole was dictated by function, and it exists to keep design patents from doing the work of utility patents. The claim scope doctrine asks whether a particular element of a valid design exists or is arranged as it is because the article requires it, and it exists to keep design patents from covering general configurations. The courts have not disagreed about either doctrine. They have disagreed about what follows from them, and they have disagreed largely because the tools of the first have been used to answer the second.

The answer these materials propose to the question what happens next after a functionality finding is the one the Federal Circuit's own decisions are consistent with when they are read for what they did rather than for the words they used. The cases do not permit a court to eliminate an entire structural element merely because it serves a function. They instead limit the claim to the design's ornamental aspects and deny protection for resemblance resting only on functional features or on a broader general design concept. On the reading advanced here, what is set aside is the functional requirement, meaning that the element must exist or must be arranged as shown. A design patent does not protect that requirement apart from the depicted appearance, so setting it aside removes nothing from the drawings. The shapes the drawings give to the elements that embody the requirement remain in the claim and in the comparison to the extent they contribute to the overall ornamentation, and the jury compares the whole design, with those shapes in it, against the accused product through the eyes of an ordinary observer familiar with the prior art. The court's task at claim construction is to name the requirement in a sentence. The court's task at the charge is to tell the jury, in the same instruction, that resemblance flowing only from the requirement does not count and that the depicted appearance of the element still does. The cases do not prescribe that formula, but it is what *Richardson* did when it decided the case on the shape of the hammer head, what *Sport Dimension* did when it put the shape of the armbands back into the design, and what the district court did in *Jacki Easlick* in the construction the Federal Circuit affirmed.

A closing caution about scope is warranted. These materials state the accepted principles from the decisions that announced them, and they draw conclusions from the interaction of those principles. Where a conclusion is a recommendation or a reading rather than a holding, the text says so. In particular, the recommended use of the *Berry Sterling* factors at claim construction is narrower than *Sport Dimension* permits and *Range of Motion* applied; the reading of *Sport Dimension*'s instruction about the particular designs of functional elements is an interpretation the court has not confirmed; and the allocation of graduated functionality questions to the jury is a position on which the Federal Circuit divided on rehearing in *Range of Motion*, with the current rule assigning functionality at claim construction to the court. The jury instructions in Part 4.4 are proposals. None has been given by a court or reviewed by the Federal Circuit. They are drafted to be consistent with the decisions discussed and to be usable under current practice, and the practitioner who adapts them should confirm their consistency with the law of the circuit and the district in which the case is pending.

Appendix 1

(Checklist for Functionality at Each Stage)

The following checklist tracks the two questions through a design patent case. Items I through III concern the record. Items IV and V concern the validity question. Items VI through IX concern the claim scope question. Item X concerns the charge.

I. The Article and the Design

1. What is the article of manufacture, as identified by the title and the figures? What does the article do?
2. What does the design consist of, as shown in the figures? Which elements are shown in solid lines and which in broken lines?
3. Is there a related utility patent or application, and what does it claim? Does it claim a mechanism, or does it claim a shape?

II. The Patentee's Own Statements

4. What does the patentee's advertising say about the design? Does it describe how the design looks, or what its features do?
5. What did the applicant say in prosecution to distinguish the prior art? Did the applicant distinguish on appearance or on function? *Top Brand LLC v. Cozy Comfort Co.*, 143 F.4th 1349 (Fed. Cir. 2025).
6. What has the patentee said about the design in other proceedings, including trade dress claims and obviousness disputes?

III. Alternatives

7. What alternative overall designs perform the function of the article? Are they in the prior art, in the market, or in the designer's own record?
8. For each element the other side calls functional, what alternative shapes or arrangements of that element would work?

IV. The Validity Question: Whole Design

9. Is the challenger's argument directed at the design as a whole, or at its elements one at a time? *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993).
10. Is the overall appearance fixed by a mating part, a standard, or a regulation? *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1566 (Fed. Cir. 1996); *In re Carletti*, 328 F.2d 1020, 1022 (C.C.P.A. 1964).
11. Does the claim contain the dimensional or compatibility limitations the challenger relies on, or are those limitations features of the commercial embodiment only? *PHG Technologies, LLC v. St. John Cos.*, 469 F.3d 1361, 1367 (Fed. Cir. 2006); *Berry Sterling Corp. v. Pescor Plastics, Inc.*, 122 F.3d 1452, 1455-56 (Fed. Cir. 1997).

V. The Validity Question: Evidence and Burden

12. Has the challenger offered clear and convincing evidence that no alternative overall design would work, or only evidence that the elements perform functions?

13. Is the challenger's argument a trade dress argument, that the design is cheaper, better, or the best, rather than a dictation argument? *Automotive Body Parts Ass'n v. Ford Global Technologies, LLC*, 930 F.3d 1314, 1319-20 (Fed. Cir. 2019).

VI. The Claim Scope Question: Identifying the Concept

14. For each element the other side calls functional, what does function require? Existence? Position relative to other elements? A particular property such as flatness or a round opening?

15. State the concept in one sentence. That sentence is the proposed claim construction.

VII. The Claim Scope Question: Preserving the Shapes

16. What does the drawing show about the element that the concept does not require? Shape, proportion, contour, surface, orientation?

17. Does the proposed construction state that those shapes remain in the claimed design? *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1333-34 (Fed. Cir. 2015); *Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316, 1322-23 (Fed. Cir. 2016).

18. Does the proposed construction exclude an element's shape, or list the ornamental features? If so, it goes further than *Egyptian Goddess* permits. 543 F.3d at 679-80.

VIII. The Claim Scope Question: The Decisionmaker

19. Can the concept be found purely functional as a matter of law on undisputed evidence, or is the evidence disputed?

20. If disputed, should the question be submitted to the jury under Instruction 2, or reserved under the summary judgment standard?

IX. The Prior Art

21. Is the feature at issue common in the prior art? If so, does Instruction 4 accomplish what a functionality finding would, without the finding?

22. Has the functional concept been set aside in the prior art comparison as well as in the accused product comparison?

X. The Charge

23. Does the proposed instruction name the concept, state that resemblance flowing only from the concept does not show infringement, and state affirmatively that the shapes remain in the design and in the comparison?
24. Does the proposed instruction avoid the phrase "factor out" and any language that a lay juror would hear as removal?
25. If a validity instruction is given, does it tell the jury that a finding that an element is required by function for comparison purposes does not decide whether the design as a whole is ornamental?
26. Does the verdict form ask the ultimate question only?

Appendix 2

(Questions and Answers)

Q: Is a design functional if every element of it performs a function?

A: No. The validity question is asked of the design as a whole, and a design is invalid only if its overall appearance was dictated by function, meaning that no alternative overall design would perform the function. Nearly every element of a useful article performs a function. *L.A. Gear*, 988 F.2d at 1123. A showing that each element does something is at most a showing bearing on claim scope, and it does not answer the validity question.

Q: What is the difference between the validity question and the claim scope question?

A: The validity question asks whether the design as a whole was dictated by function; if so, the patent is invalid. The claim scope question asks whether a particular element of a valid design must exist, or must be arranged as it is, for the article to work; if so, resemblance between the claimed and accused designs that flows only from that requirement does not count toward infringement. The first is a question of fact on which the challenger bears a clear and convincing burden. The second is currently treated as part of claim construction. Part 3.1.

Q: What does "factoring out" mean?

A: The cases establish that it does not mean the element is removed from the design. *Ethicon*, 796 F.3d at 1333-34; *Sport Dimension*, 820 F.3d at 1322-23; *Apple*, 786 F.3d at 998. On the reading these materials advance, it means that the requirement function imposes, such as that a tossing ball have a tail and fins or that a tool have a hammer at one end and a pry bar at the other, is not a basis on which resemblance may be found, while the shape the drawings give the element remains in the claim and in the comparison to the extent it contributes to the overall ornamentation. Because a design patent does

not protect the general concept apart from the depicted appearance, setting the requirement aside removes nothing from the drawings. Part 3.4. The cases do not prescribe this formula, but each is consistent with it.

Q: What does *Sport Dimension* mean when it says the factfinder should not focus on the particular designs of functional elements?

A: On the reading advanced here, it means the factfinder should not compare the functional elements in isolation and decide the case on that comparison, which is the element-by-element error *Richardson* and *Amini* warned against. It does not mean the shapes of the elements are disregarded, because the same opinion holds that the elements remain in the claim to the extent they contribute to the overall ornamentation, and an element contributes only through its shape. Part 3.4. The court did not explain the sentence, and this reading is an inference.

Q: Do the *Berry Sterling* factors apply at claim construction?

A: Yes, under current law. *Sport Dimension* said they "may serve as a useful guide" there, and *Range of Motion* applied them. 820 F.3d at 1322; 166 F.4th at 990. These materials recommend a narrower use: employ the factors to identify what functional consideration a feature implicates, but do not treat them as a scorecard that strips the feature's depicted ornamental treatment from the comparison. The factors were built for the whole-design validity question and produce graduated answers, and *Sport Dimension* itself had to add the shape of the armbands back into the design after applying them. Part 3.3.

Q: Is design patent functionality the same as trade dress functionality?

A: No. Trade dress functionality asks whether a feature is essential to the use or purpose of the article or affects its cost or quality, and it exists to preserve competition against a potentially perpetual right. *Inwood*, 456 U.S. at 850 n.10. Design patent functionality asks whether the design was dictated by function, and it exists to enforce the ornamentality requirement. *Automotive Body Parts*, 930 F.3d at 1319-20. A feature that affects cost or quality may still be one of many that would work. Part 2.5.

Q: Can a patentee argue that a feature of its own design is functional?

A: A patentee may argue that a feature's concept is functional, and the consequence is that resemblance at the level of the concept does not count either way. A patentee cannot use the argument to have a difference in the accused product's shape disregarded, because the difference in shape is exactly what the observer compares, and the existence of the different shape shows that the shape was not dictated. Part 3.5.

Q: Is the prior art treated the same way as the accused design?

A: Yes. A functional concept set aside in the comparison with the accused design is set aside in the comparison with the prior art, whether in the three-way comparison, in anticipation, or in obviousness. *OddzOn*, 122 F.3d at 1404. The prior art can also serve as an independent basis for instructing the jury

that a common feature carries less weight, without any finding that the feature is functional. Part 3.6 and Instruction 4.

Q: Who decides whether a feature is functional?

A: When functionality is raised as an invalidity defense, the factfinder, and the challenger bears a clear and convincing burden. At claim construction, the current rule is that the court decides, with the construction reviewed de novo. *Sport Dimension*, 820 F.3d at 1320; *Range of Motion*, 166 F.4th at 988-89. District courts divided on the question for decades before *Range of Motion*, and on the denial of rehearing in that case Judge Cunningham, joined by Judge Hughes, defended the court's role while Chief Judge Moore, joined by Judge Reyna, would send functionality and ornamentality to the jury; Judges Stoll and Stark dissented without opinion. These materials recommend that the court make only the categorical determination that a requirement is purely functional, and only where the record permits, and that graduated questions about the contribution of a shape go to the jury. Part 3.7.

Q: How should the jury be instructed?

A: The jury should be told what the functional concept is, that resemblance between the designs flowing only from that concept does not show infringement, and, in the same instruction, that the shapes the drawings give to the elements embodying the concept are part of the claimed design and must be included in the comparison of the designs as a whole. Part 4.4 proposes instructions for the case in which the court has made the finding, the case in which the jury makes it, the validity defense, and the case in which the prior art rather than a functionality finding supplies the basis for discounting a shared feature.

Q: Does a finding that an element is functional for claim scope purposes bear on validity?

A: No. A design may include elements whose concepts are required by function and still be ornamental as a whole. The validity question is whether the overall appearance was a matter of choice, and the jury should be told that a claim scope finding does not decide it. Instruction 3.

Appendix 3

(Limitations of These Materials)

These materials are general educational material about United States design patent practice. They are not legal advice and do not create an attorney-client relationship.

The principles stated in Part 2 are drawn from the decisions cited, and the authorities were selected for their statements of principle rather than as a representative sample of functionality litigation. District court decisions are cited as illustrations of practice and are not precedent. Statements that a result has or has not occurred are limited to the decisions reviewed.

Where these materials draw an inference from a decision rather than restate its holding, the text so indicates, and Parts 3 and 4 mark the current rule and the recommended approach separately. In particular, the model under which a functional requirement is set aside while the depicted appearance of the element stays in the comparison is a reading of the cases these materials advance, not a formula any court has adopted; the recommended use of the *Berry Sterling* factors at claim construction is narrower than *Sport Dimension* permits; the reading of *Sport Dimension*'s instruction about the particular designs of functional elements is an interpretation; and the allocation of disputed functionality questions to the jury is a recommendation. *Range of Motion Products, LLC v. Armaid Co.*, 166 F.4th 981 (Fed. Cir. 2026), is current precedential authority that treats functionality at claim construction as a matter for the court and permits use of the *Berry Sterling* factors there, and the denial of rehearing en banc left that authority in place. *Jacki Easlick, LLC v. CJ Emerald*, Nos. 2024-1538, 2024-1826 (Fed. Cir. Aug. 14, 2026), is nonprecedential and reviewed a preliminary injunction ruling for abuse of discretion; an errata to the opinion issued August 17, 2026, and the opinion should be read as corrected. The author's firm filed an amicus brief in support of rehearing in *Range of Motion*, and the positions advanced here are consistent with that brief.

The jury instructions in Part 4.4 are proposals drafted for these materials. None has been given by a court or reviewed on appeal. They should be adapted to the facts of the case and the law of the forum and should be reviewed against the pattern instructions in use in the district.

The law in this area is developing. Citations should be confirmed against the reporters and the dockets before reliance, and the practitioner remains responsible for independent research on the facts of each matter. The arguments described in these materials do not necessarily reflect those the author would assert in any particular matter.

Appendix 4

(Selected Statutory, Regulatory, and Case Law References)

A. Statutes and Guidance

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."

35 U.S.C. § 282(a) (presumption of validity); § 282(b) (defenses to be pleaded).

MPEP § 1504.01(c) (Lack of Ornamentality): states that for a design to be ornamental within 35 U.S.C. § 171 it must be "created for the purpose of ornamenting," quoting *In re Carletti*; describes the prima facie showing the examiner must make and the rebuttal evidence the applicant may offer; still quotes *Power Controls* for the proposition that the purposes of the particular elements of the design must be considered.

B. Supreme Court

Gorham Co. v. White, 81 U.S. (14 Wall.) 511 (1871). Infringement occurs when, in the eye of an ordinary observer giving such attention as a purchaser usually gives, two designs are substantially the same, the resemblance being such as to deceive the observer into purchasing one supposing it to be the other; the comparison is of the effect of the whole design.

Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 148 (1989). Dictum that a design must present an aesthetically pleasing appearance that is not dictated by function alone.

Inwood Laboratories, Inc. v. Ives Laboratories, Inc., 456 U.S. 844, 850 n.10 (1982); *Qualitex Co. v. Jacobson Products Co.*, 514 U.S. 159, 164-65 (1995); *TrafFix Devices, Inc. v. Marketing Displays, Inc.*, 532 U.S. 23, 32-35 (2001). The trade dress functionality standard and its purpose of preserving competition.

Markman v. Westview Instruments, Inc., 517 U.S. 370, 372, 388-90 (1996). Claim construction is for the court because it is the interpretation of a written instrument.

Hana Financial, Inc. v. Hana Bank, 574 U.S. 418, 425 n.2 (2015). When the relevant question is how an ordinary person would make an assessment, the jury is generally the decisionmaker.

C. Court of Customs and Patent Appeals and Regional Circuits

In re Carletti, 328 F.2d 1020, 1022 (C.C.P.A. 1964). When a configuration is the result of functional considerations only, the design is not ornamental because it was not created for the purpose of ornamenting; a hex nut, a ball bearing, a golf club, and a fishing rod are given as examples of configurations dictated by function; a gasket fixed by military specification held unpatentable.

In re Morton-Norwich Products, Inc., 671 F.2d 1332, 1340-41 (C.C.P.A. 1982). The trade dress functionality factors; functionality is a question of fact.

Applied Arts Corp. v. Grand Rapids Metalcraft Corp., 67 F.2d 428, 430 (6th Cir. 1933). General configuration made necessary by function does not give a design patent breadth to cover everything of similar configuration; the dining room chair example.

Rowe v. Blodgett & Clapp Co., 112 F. 61, 62 (2d Cir. 1901). "Useful" in the early design statutes meant matters of ornament in which the utility depends on the pleasing effect imparted to the eye.

D. Federal Circuit: Validity

Power Controls Corp. v. Hybrinetics, Inc., 806 F.2d 234, 239 (Fed. Cir. 1986). Early statement that the purposes of the particular elements of the design must be considered; since superseded by the whole-design rule but still quoted in the MPEP.

Avia Group International, Inc. v. L.A. Gear California, Inc., 853 F.2d 1557, 1563 (Fed. Cir. 1988). A distinction exists between the functionality of an article or its features and the functionality of the particular design of the article or features that perform a function; the purpose of the design patent statute is to promote the decorative arts.

L.A. Gear, Inc. v. Thom McAn Shoe Co., 988 F.2d 1117, 1123 (Fed. Cir. 1993). The design is viewed in its entirety and the question is whether the overall appearance is dictated by the utilitarian purpose of the article; when there are several ways to achieve the function, the design is more likely ornamental; invalidity must be proven by clear and convincing evidence.

Best Lock Corp. v. Ilco Unican Corp., 94 F.3d 1563, 1566-67 (Fed. Cir. 1996). A key blade that had to fit a matching keyway was dictated solely by function and the patent invalid; Judge Newman dissenting.

Berry Sterling Corp. v. Pescor Plastics, Inc., 122 F.3d 1452, 1455-56 (Fed. Cir. 1997). Reversing summary judgment of invalidity; alternative designs are an important factor but not the only one; stating the list of other considerations later adopted in *PHG*; the claim contained no dimensional limitations tying it to the cup holder.

Hupp v. Siroflex of America, Inc., 122 F.3d 1456, 1460 (Fed. Cir. 1997). Because other designs have the same general use and the aesthetic characteristics are not dictated by function, the design is primarily ornamental.

PHG Technologies, LLC v. St. John Cos., 469 F.3d 1361, 1365-67 (Fed. Cir. 2006). Functionality is a question of fact; the *Berry Sterling* list is a list of considerations for assessing whether the design as a whole was dictated by functional considerations; the claim contained no size or printer-compatibility limitation.

Ethicon Endo-Surgery, Inc. v. Covidien, Inc., 796 F.3d 1312, 1329-34 (Fed. Cir. 2015). Reversing invalidity because the district court analyzed functionality at too high a level of abstraction, focusing on general concepts rather than the ornamental designs adorning the elements; explaining *Richardson* and *OddzOn* as limiting the claim to the ornamental aspects of functional elements while retaining the shape of the hammer head, the flare of the crowbar, the rounded neck, and the orientation of the crowbar; affirming noninfringement.

Automotive Body Parts Ass'n v. Ford Global Technologies, LLC, 930 F.3d 1314, 1319-21 (Fed. Cir. 2019). A design patent must claim an ornamental design and not one dictated by function; aesthetic appeal to consumers, including the desire for a matching replacement part, is not a function that makes a design functional; trademark aesthetic functionality does not apply.

E. Federal Circuit: Claim Scope and Infringement

OddzOn Products, Inc. v. Just Toys, Inc., 122 F.3d 1396, 1404-06 (Fed. Cir. 1997). Functional characteristics do not invalidate the patent but limit the scope of the protected subject matter; the claim is limited to its overall ornamental visual impression rather than the general design concept of a rocket-like tossing ball; the patentee must show that perceived similarity rests on ornamental features; prior art showing only a ball with a tail and fins does not render the design obvious.

Amini Innovation Corp. v. Anthony California, Inc., 439 F.3d 1365, 1371-72 (Fed. Cir. 2006). The trial court is correct to factor out the functional aspects of design elements, but discounting must not convert the infringement test into an element-by-element comparison; quoting *Inwood* in dictum.

Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 676-80 (Fed. Cir. 2008) (en banc). The ordinary observer familiar with the prior art is the sole test; the prior art directs the observer's attention; a detailed verbal construction is ordinarily not preferable; the court may usefully distinguish features that are ornamental from those that are purely functional.

Richardson v. Stanley Works, Inc., 597 F.3d 1288, 1293-96 (Fed. Cir. 2010). The district court properly factored out the functional aspects of the multi-function tool design; the handle, jaw, crowbar, and hammer head were dictated in existence and arrangement by function; a design with numerous functional elements mandates a narrow construction; discounting must not become element-by-element comparison; noninfringement affirmed on the different shapes of the accused tool's elements.

Apple Inc. v. Samsung Electronics Co., 786 F.3d 983, 998-1000 (Fed. Cir. 2015), *rev'd on other grounds*, 580 U.S. 53 (2016). Rejecting the argument that elements dictated by their functional purpose should be ignored in their entirety; *Richardson*'s language was a description of the facts there and did not establish a rule to eliminate entire elements from the claim scope; a construction claiming the ornamental design as shown in the figures, with an instruction requiring the jury to consider the prior art, fairly covered the law, and the witnesses allowed the jury to account for functional aspects.

Sport Dimension, Inc. v. Coleman Co., 820 F.3d 1316, 1320-23 (Fed. Cir. 2016). Claim construction of a design patent is reviewed de novo; the district court erred in eliminating the armbands and side torso tapering from the claim; the elements remain to the extent they contribute to the overall ornamentation; the factfinder should not focus on the particular designs of these elements but on what they contribute to the overall ornamentation; the *Berry Sterling* factors may serve as a useful guide for claim construction functionality.

Lanard Toys Ltd. v. Dolgencorp LLC, 958 F.3d 1337, 1341-44 (Fed. Cir. 2020). Affirming a claim construction that relied on the drawings, identified the functional purpose of each element, and meticulously acknowledged the ornamental aspects of each functional element; the ordinary observer test is not element by element but does not ignore that designs have both functional and ornamental aspects; resemblance stemming from functional or prior art features did not support infringement.

Columbia Sportswear North America, Inc. v. Seirus Innovative Accessories, Inc., 942 F.3d 1119, 1129 (Fed. Cir. 2019). Design patent infringement is a question of fact.

Top Brand LLC v. Cozy Comfort Co., 143 F.4th 1349 (Fed. Cir. 2025). Argument-based prosecution history disclaimer applies to design patents where the applicant's statements clearly and unmistakably distinguish the claimed design from the prior art.

LKQ Corp. v. GM Global Technology Operations LLC, 102 F.4th 1280 (Fed. Cir. 2024) (en banc). Overruling the *Rosen-Durling* test and directing that design patent obviousness be assessed under the *Graham* and *KSR* framework; a primary reference is still required and is analyzed for visual similarity to the claimed design.

Jacki Easlick, LLC v. CJ Emerald, Nos. 2024-1538, 2024-1826 (Fed. Cir. Aug. 14, 2026) (nonprecedential), errata issued Aug. 17, 2026. Affirming the denial of a preliminary injunction; describing the district court as having determined that the two attached hooks and vertical configuration were functional elements excluded from the scope of the claim while the shape of the hooks, the flare of the tip, the 90-degree offset, and the end spheres remained protected; holding that considering distinguishing features is not legal error; declining to reach whether the 90-degree orientation is functional.

Range of Motion Products, LLC v. Armaid Co., 166 F.4th 981, 988-92 (Fed. Cir. 2026). Affirming a claim construction that identified the functional versus the ornamental aspects of the arms of a massage device using the *Berry Sterling* factors; rejecting the arguments that solid lines establish ornamentality, that design elements must be wholly functional or wholly ornamental, and that alternative designs are a threshold barring the other factors; affirming summary judgment of noninfringement as plainly dissimilar after considering functional features only to the extent they contribute to overall ornamentation; Chief Judge Moore dissenting. Rehearing en banc denied, No. 2023-2427, ECF No. 85 (Fed. Cir. Aug. 11, 2026), with a concurrence by Judge Cunningham, joined by Judge Hughes, distinguishing validity functionality from claim construction functionality and describing the court as a trail guide, and a dissent by Chief Judge Moore, joined by Judge Reyna, stating that once a judge finds an aspect functional it is entirely unclear what happens next; Judges Stoll and Stark dissenting without opinion.

Nordock, Inc. v. Systems Inc., 803 F.3d 1344, 1360-61 (Fed. Cir. 2015), *vacated on other grounds*, 580 U.S. 1028 (2016). Addressing jury findings on design patent functionality.

F. District Courts (illustrative)

Black & Decker (U.S.) Inc. v. Pro-Tech Power Inc., No. 97-1123-A, 1998 WL 633636 (E.D. Va. June 2, 1998). Claim construction functionality is a question of fact; the *Markman* rationale does not apply to it.

180s, Inc. v. Gordini U.S.A., Inc., 699 F. Supp. 2d 714, 728 (D. Md. 2010). *Egyptian Goddess* does not require the court to address functionality at claim construction in advance of trial; *Richardson* involved a bench trial.

Range of Motion Products LLC v. Armaid Co., No. 1:22-cv-00091, 2023 WL 5530768, at *7-11 (D. Me. Aug. 28, 2023). Applying the *PHG* factors at claim construction; finding the clamshell shape of the arms functional and the thick ridged outline largely ornamental; granting summary judgment of noninfringement.

Jacki Easlick, LLC v. CJ Emerald, No. 2:23-cv-2000, 2024 WL 310125, at *5 (W.D. Pa. Jan. 26, 2024), *aff'd*, Nos. 2024-1538, 2024-1826 (Fed. Cir. Aug. 14, 2026) (nonprecedential). "Because there is a functional aspect, the concept of two attached hooks must be excluded from the scope of the claimed design"; the patent protects the shape of the hooks, the flare of the top hook's tip, the 90-degree offset, and the spheres on the ends of the hooks.

Telebrands Corp. v. Del Laboratories, Inc., 719 F. Supp. 2d 283 (S.D.N.Y. 2010). Denying summary judgment of functionality on evidence of higher cost and a rejected functional feature.

Motorola, Inc. v. Alexander Manufacturing Co., 786 F. Supp. 808 (N.D. Iowa 1991). A battery housing designed at the same time as the phone it fit was not dictated by the phone.

Lifted Ltd. v. Novelty Inc., No. 16-cv-03135-PAB-GPG, 2020 WL 2747814, at *15-16 (D. Colo. May 27, 2020). Finding only the central lighter recess purely functional because its size and shape were dictated by standard lighter dimensions; construing the claim as the design shown in Figures 1 through 7 and stating that purely functional features should not be considered in determining infringement except to the extent they contribute to the overall appearance of the claimed design.

Lanard Toys Ltd. v. Toys "R" Us-Delaware, Inc., 2019 WL 1304290 (M.D. Fla. Mar. 21, 2019), *aff'd*, 958 F.3d 1337 (Fed. Cir. 2020). Identifying the functional purpose of each element and the ornamental aspects of each.

Cheng v. AIM Sports, Inc., No. CV 10-3814 PSG (PLAx), 2011 U.S. Dist. LEXIS 42462, at *30 (C.D. Cal. Apr. 14, 2011). Treating the recoil-groove design of a firearm rail, required for mounting compatibility, as dictated by necessity and outside the scope of the design patents, while retaining the other depicted rail features in the construction.

Covves, LLC v. Dillard's, Inc., No. 2:18-cv-08518-RGK-AFM, 2019 WL 8227455, at *6 (C.D. Cal. Dec. 20, 2019). Applying the *Inwood* formulation, holding the innermost ring of an inflatable beverage holder functional, and construing the claim to exclude the inner ring shape.

ArtSkills, Inc. v. Royal Consumer Products, LLC, No. 3:17-cv-1552 (VAB), 2019 WL 1930751, at *16-17 (D. Conn. May 1, 2019). Treating the functional and ornamental distinction as a critical component of claim construction and limiting each display blank design to enumerated ornamental aspects.

Vertical Tank, Inc. v. BakerCorp, No. 1:18-cv-00145-LJO-JLT, 2019 WL 2207668, at *18-19 (E.D. Cal. May 22, 2019). Considering the *Sport Dimension* and *PHG* factors at claim construction, finding the record insufficient to resolve several disputed features, and collecting decisions deferring disputed functional and ornamental questions to later proceedings or trial.

Deckers Outdoor Corp. v. Rue Services Corp., No. CV 13-6303, 2014 WL 12588481, at *3 (C.D. Cal. Aug. 29, 2014). Leaving disputed functionality to the jury.

Depaoli v. Daisy Manufacturing Co., No. 07-cv-11778, 2009 WL 2145721, at *5 (D. Mass. July 14, 2009). Deferring functionality to summary judgment or the jury instructions.

*Shop*TV, Inc. v. Bed Bath & Beyond, Inc.*, No. 09-cv-00057-REB-CBS, 2010 WL 427782 (D. Colo. Jan. 19, 2010) (magistrate judge's recommendation that a travel kit design was invalid as primarily functional in light of airline liquids regulations), *adopted*, 2010 WL 489539 (D. Colo. Feb. 3, 2010), *withdrawn*, 2010 WL 582165 (D. Colo. Feb. 17, 2010). Not a merits holding; cited as an illustration only.

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