

judgment on all of those claims on the basis of non-infringement. For the reasons set forth below, the Court will grant JBR's motion for summary judgment as to infringement of the '362, '138, and '488 patents.

I. Background

Keurig filed the application that ultimately produced the '488 patent on December 12, 2003. The '488 patent was issued on January 23, 2007. Keurig filed the application for the '138 patent on August 24, 2004. The '138 patent was issued on March 25, 2008. Keurig filed the application for the '362 patent on December 3, 2003. The '362 patent was issued on March 1, 2005.

A. '362 Patent

The '362 patent is a design patent directed to a "disposable beverage filter cartridge." It contains no descriptive textual claims; the patent claims encompass seven drawings of the design from different perspectives. Those drawings are as follows:

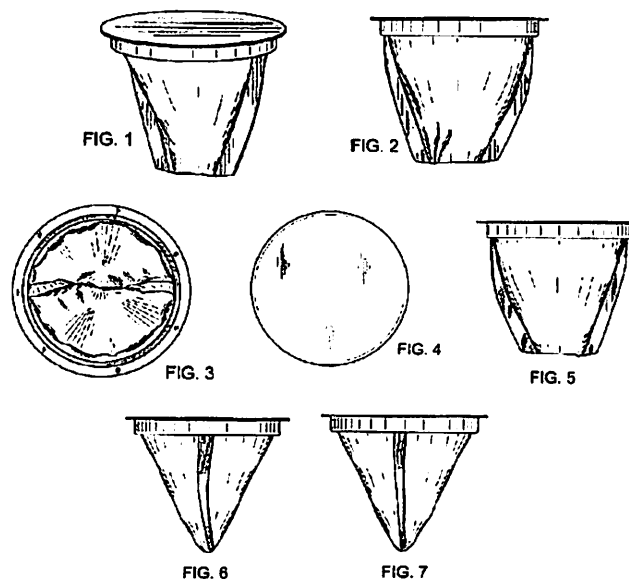


Fig. 1 - Claims of the '362 patent

B. '138 and '488 Patents

The '138 and '488 patents are directed to an apparatus and method for brewing a single cup of coffee using a removable "beverage cartridge." The specific claims of the '138 patent at issue are independent claim 1 and dependent claim 18. The claims of the '488 patent at issue are independent claim 22 and dependent claim 29.

Claims 1 and 18 of the '138 patent collectively read:

1. An apparatus for forming a beverage, comprising: a housing adapted to support components of a beverage forming device; a receptacle movable relative to the housing between a vertical position and an inclined position in which the receptacle is accessible to insert or remove a beverage cartridge; a lid that covers at least part of the receptacle when the receptacle is in the vertical position; a handle that is movable between open and closed positions to cause the receptacle to move between the vertical and inclined positions; and at least one resilient element arranged to resiliently hold the handle in the closed position, wherein the at least one resilient element remains deflected when the handle is in the closed position.
18. The apparatus of claim 1, further comprising a beverage cartridge that includes a beverage medium and a filter element.

Claims 22 and 29 of the '488 patent collectively read as follows:

22. A method for forming a beverage, comprising: providing a beverage forming device having a housing with a receptacle accessible to a user, the receptacle having an opening to receive a beverage cartridge, and the receptacle opening having a center axis extending from a center of the opening; moving the receptacle from a vertical position, in which the center axis extends vertically and intersects a lid in a closed position, to a forwardly inclined position in which the opening of the receptacle to receive a cartridge faces away from the lid, and the center axis does not intersect the lid in an open position; moving the lid to the open position; providing a beverage cartridge in the receptacle while the receptacle is in the forwardly inclined position; moving the receptacle to the vertical position; to moving the lid to the closed position in which the lid cooperates with the receptacle to at least partially enclose the beverage cartridge; and providing a liquid into the beverage cartridge to produce a beverage.

29. The method of claim 22, further comprising piercing the beverage cartridge with an inlet probe when the lid is moved to the closed position.

Keurig manufactures and licenses commercially available brewers and beverage cartridges (branded as “K-Cups”) that embody the claimed apparatus and allow users to accomplish the claimed methods. JBR manufactures beverage cartridges (branded as “OneCups”) that can be used with Keurig brewers to brew a single cup of coffee. Whether using a Keurig or JBR cartridge, a user operates a Keurig brewer in substantially the same manner. Once the machine has been turned on and filled with water, the user places a coffee cup in position under the brewing chamber where the coffee will be dispensed. The user then moves a “handle” to put the machine in an “open position;” this causes a receptacle in the brewing chamber to move into an “inclined position.” The user then inserts a cartridge filled with coffee grounds (either Keurig or JBR) into that receptacle. The user then lowers the handle, which puts the machine in the “closed position” (and causes the receptacle to move back to the “vertical position”). The moving of the handle into the “closed position” causes the machine to “pierce” the cartridge, permitting hot water to pass into the cartridge. The user presses the brewing button. In a few moments the hot coffee is dispensed into the awaiting cup.

C. Procedural Background

On November 2, 2011, Keurig filed suit under 35 U.S.C. §100 *et seq.* against JBR for infringement of the ’362, ’138, and ’488 patents. Specifically, Keurig contends that JBR has infringed on the entirety of the ’382 patent, claims 1 and 18 of the ’138 patent, and claims 22 and 29 of the ’488 patent.

The Court conducted a *Markman* hearing on the construction of the relevant terms used in

the '138 and '488 patents on January 29, 2013, and issued a memorandum and order construing those terms on March 22, 2013. The Court declined to construe the claims of the '362 patent with descriptive language, instead relying on the visual depictions in the patent itself.²

The Court will now take up JBR's pending motions for summary judgment on the issue of infringement of the entirety of the '362 patent; and the specific claims of the '138 and '488 patents.

II. Standard of Review

Summary judgment is appropriate when the pleadings, the discovery and disclosure materials on file, and any affidavits show that “there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). “Essentially, Rule 56[] mandates the entry of summary judgment ‘against a party who fails to make a showing sufficient to establish the existence of an element essential to that party’s case, and on which that party will bear the burden of proof at trial.’” *Coll v. PB Diagnostic Sys.*, 50 F.3d 1115, 1121 (1st Cir. 1995) (quoting *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986)). In making that determination, the Court views “the record in the light most favorable to the nonmovant, drawing reasonable inferences in his favor.” *Noonan v. Staples, Inc.*, 556 F.3d 20, 25 (1st Cir. 2009).

² As the Federal Circuit has made clear with respect to claim construction in the design patent context, “the court is not obligated to issue a detailed verbal description of the design if it does not regard verbal elaboration as necessary or helpful. In addition, in deciding whether to attempt a verbal description of the claimed design, the court should recognize the risks entailed in such a description, such as 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.” *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 679-680 (Fed. Cir. 2008).

III. Analysis

A. '362 Patent

Keurig contends that JBR's beverage cartridges, which it manufactures and sells for use in Keurig brewers, directly infringe upon the claims of '362 design patent in violation of 35 U.S.C. § 271(a). Section 271(a) provides that "[e]xcept as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent." Infringement under this section is known as "direct infringement" because the alleged infringer is the entity that practiced the patented invention. Here, Keurig alleges that by manufacturing and offering for sale beverage cartridges that are covered by the '362 design patent, JBR has directly infringed that patent.³

A. Ordinary Observer Test

It is well-established, and neither party disputes, that the "ordinary observer" test applies to claims of infringement of a design patent. That test, as articulated by the Supreme Court in *Gorham v. White*, holds that "if, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other." 81 U.S. 511, 528 (1872). For the purposes of applying that test, an "ordinary observer" is "not any observer, but one who, with less than the trained faculties

³ The briefs of both parties devoted substantial attention to the Delaware district court's summary judgment ruling in favor of another alleged infringer in a similar case brought by Keurig *Keurig, Inc. v. Sturm Foods, Inc.*, 2012 U.S. Dist. LEXIS 130762 (D. Del. Sept. 13, 2012). Notably, that case did not involve a claim of infringement of the '362 design patent for beverage cartridges. Indeed, a footnote in the district court's opinion noted, "[k]eep in mind that it is the brewer and the use of the brewer that are claimed, not the cartridge itself." *Id.* at 16-17 n. 2. Here, the brewer, the use of the brewer, and the design of the beverage cartridge are claimed.

of the expert, is ‘a purchaser of things of similar design,’ or ‘one interested in the subject.’”

Applied Arts Corp. v. Grand Rapids Metalcraft Corp., 67 F.2d 428, 430 (6th Cir. 1933)

(interpreting *Gorham*, 81 U.S. 511).⁴

The Federal Circuit has held that the “ordinary observer” test is “not limited to those features visible at the point of sale, but instead must encompass all ornamental features visible at any time during normal use of the product.” *Contessa Food Prods. v. Conagra*, 282 F.3d 1370, 1381 (Fed. Cir. 2002). The Federal Circuit recently defined “normal use” in this context as including the period “extending from the completion of manufacture or assembly until the ultimate destruction, loss, or disappearance of the article.” *Int’l Seaway Trading Corp. v. Walgreens Corp.*, 589 F.3d 1233, 1241 (Fed. Cir. 2009).

Despite its potentially confusing title—which refers to the design as one for a “disposable beverage filter cartridge”—the ’362 patent does not describe an internal component of the cartridge commonly licensed and sold by Keurig under the brand name “K-Cup.” Instead, it describes a cartridge of a separate and distinct type that would in fact be visible to the “ordinary observer” during normal use.

It is of no consequence that neither Keurig, nor any license holder, currently manufactures or sells a product that embodies the design claimed in the ’362 patent. The Federal Circuit has counseled against using commercial embodiments of a design patent, rather than the patent

⁴ On this subject, the *Gorham* court remarked that “[e]xperts, therefore, are not the persons to be deceived. Much less than that which would be substantial identity in their eyes would be undistinguishable in the eyes of men generally, of observers of ordinary acuteness, bringing to the examination of the article upon which the design has been placed that degree of observation which men of ordinary intelligence give. It is persons of the latter class who are the principal purchasers of the articles to which designs have given novel appearances, and if they are misled, and induced to purchase what is not the article they supposed it to be . . . the patentees are injured, and that advantage of a market which the patent was granted to secure is destroyed.” 81 U.S. at 528.

drawings standing alone, for comparison to the allegedly infringing product when performing an “ordinary observer” analysis. *See, e.g., Sun Hill Indus. v. Easter Unlimited*, 48 F.3d 1193, 1196 (Fed. Cir. 1995) (“The test for infringement is not whether the accused product is substantially similar to the patentee’s commercial embodiment of the claimed design. Such a test risks relying on unclaimed and therefore irrelevant features as grounds for similarity or difference.”); *Hutzler Mfg. Co. v. Bradshaw Int’l, Inc.*, 2012 U.S. Dist. LEXIS 103864 (S.D.N.Y. July 24, 2012) (“A long line of cases counsels that, in performing a side-by-side comparison, courts generally should compare the design set forth in the patent—that is, the drawings—with the accused product, rather than comparing the embodiment of the patented design and the accused product.”) (collecting cases); *see also L.A. Gear v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1125 (Fed. Cir. 1993) (“Design patent infringement relates solely to the patented design, and does not require proof of unfair competition in the marketplace.”). Accordingly, the proper application of the “ordinary observer” test here requires the comparison of the actual JBR cartridge with the drawings of the ’362 patent.

The Federal Circuit recently explained in greater detail how the “ordinary observer” test functions when applied in the pre-trial motion context. In *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665 (Fed. Cir. 2008), the court affirmed the district court’s granting of summary judgment on non-infringement grounds, remarking that

[i]n some instances, the claimed design and the accused design will be sufficiently distinct that it will be clear without more that the patentee has not met its burden of proving the two designs would appear ‘substantially the same’ to the ordinary observer, as required by *Gorham*. In other instances, when the claimed and accused designs are not plainly dissimilar, resolution of the question whether the ordinary observer would consider the two designs to be substantially the same will benefit from a comparison of the claimed and accused designs with the prior art, as in many of the cases discussed

above and in the case at bar.

Egyptian Goddess, 543 F.3d at 678. Courts have interpreted this language as establishing “two levels to the infringement analysis: a level-one or ‘threshold’ analysis to determine if comparison to the prior art is even necessary, and a second level analysis that accounts for prior art in less obvious cases.” *Wing Shing Prods. (BVI) Co. v. Sunbeam Prods.*, 665 F. Supp. 2d 357, 362 (S.D.N.Y. 2009); *see also Great Neck Saw Mfrs., Inc. v. Star Asia U.S.A., LLC*, 727 F. Supp. 2d 1038, 1052 (W.D. Wash. 2010) (employing the same approach). Although at both levels the inquiry must focus on the similarity in “overall appearance” of the allegedly infringing product and the patented design, the Federal Circuit has recognized that “in determining whether apparently minor differences between specific features would be recognized as distinguishing the designs, it is often helpful to refer to any prior art with which the ordinary observer would reasonably be familiar.” *Revision Military, Inc. v. Balboa Mfg. Co.*, 700 F.3d 524, 527 (Fed. Cir. 2012).

Accordingly, the Court here will first determine whether the designs of the JBR cartridge and the '362 patent are “plainly dissimilar” before engaging in any comparison to prior art.

1. Plainly Dissimilar

In determining whether, to the ordinary observer, an allegedly infringing product is “plainly dissimilar” from a patented design, “[t]he proper comparison requires a side-by-side view of the drawings of the [] patent design and the accused product[.]” *Crocs, Inc. v. ITC*, 598 F.3d 1294, 1304 (Fed. Cir. 2010). On summary judgment, the question for the Court is whether reasonable jurors viewing such a comparison could differ as to conclusion that the designs are “plainly dissimilar.” This inquiry is highly fact-dependent, and thus not particularly well-suited

to decision on summary judgment. Nonetheless, there exist some helpful examples of designs found “plainly dissimilar” as a matter of law.

In *Competitive Edge, Inc. v. Staples, Inc.*, 763 F. Supp. 2d 997 (N.D. Ill. 2010), the district court compared the following product and patented design for a calculator:



Fig. 2 - Staples product



Fig. 3 - design patent drawing

Id. at 1003-1005. The court found that “the two designs, taken as a whole, create overall visual impressions that would appear plainly dissimilar to the ordinary observer.” *Id.* at 1011. In the court’s view, “the scalloped edges in the patented design when compared with the smooth edges of the accused design, and the hour-glass shape of the accused design when compared with the block-rectangle shape of the patented design [were] important aspects that dominate[d] the overall visual appearance of the respective designs.” *Id.*

In *Great Neck Saw Mfrs., Inc. v. Star Asia U.S.A., LLC*, 727 F. Supp. 2d 1038 (W.D. Wash. 2010), another district court compared an allegedly infringing folding knife to a number of patented designs. The court found that the allegedly infringing product was plainly dissimilar from at least four of the patented designs, and therefore granted summary judgment as to infringement of those patents without any comparison to the prior art. *See id.* at 1052. In making that determination, the court focused on the absence on the allegedly infringing knife of “any

element resembling a segmented u-shaped clip,” as well as differences in the scalloping of the knife handle and the shape of the blade holder. *Id.*

In contrast to those cases, in *Crocs*, 598 F.3d 1294, the Federal Circuit reversed an International Trade Commission decision that the allegedly infringing shoes did not infringe on Croc’s patented design. To reach that conclusion, the Federal Circuit utilized side-by-side comparisons, such as the following:

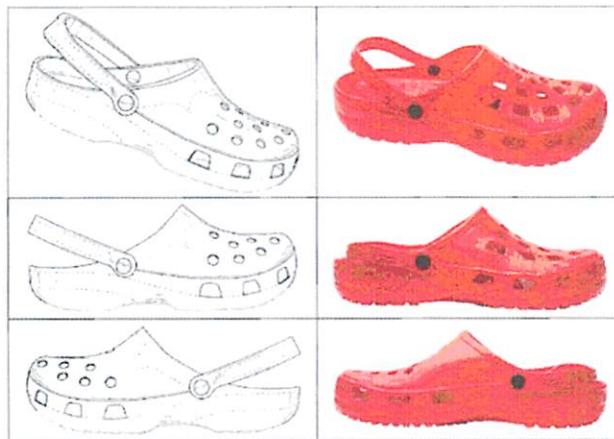


Fig. 4 - Patented design (left) and infringing product (right)

Id. at 1306. According to the court, “[i]n one comparison after another, the shoes appear[ed] nearly identical.” *Id.* The court further remarked that “[i]f the claimed design and the accused designs were arrayed in matching colors and mixed up randomly, [it was] not confident that an ordinary observer could properly restore them to their original order without very careful and prolonged effort.” *Id.*

A similar side-by-side comparison of the allegedly infringing JBR cartridge and the design of the ’362 patent is as follows:

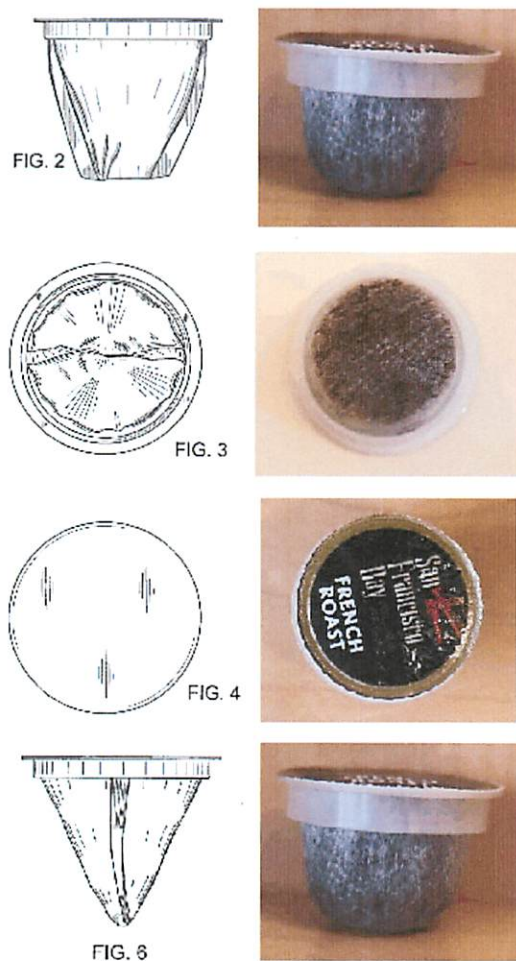


Fig. 5 - '362 patent drawings (left) and JBR cartridge (right)

As this comparison demonstrates, the similarities between the design of the JBR cartridge and the design of the '362 patent do not rise to the level of the “nearly identical” designs in *Crocs*. 598 F.3d at 1306. However, that does not necessarily decide the issue of whether the designs at issue would be “plainly dissimilar” to the ordinary observer as a matter of law. Such a determination requires a more careful analysis of the side-by-side comparison and the similarities (and differences) exposed thereby.

JBR urges the Court to ignore many of the similarities between the designs (including the circular shape of the lid, the overall tapered shape of the filter, and the depending skirt) because, it contends, these features are all functional. It is certainly true that “a design patent, unlike a utility patent, limits protection to the ornamental design of the article.” *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293 (Fed. Cir. 2010) (affirming a district court’s decision to “factor out” the functional aspects of the patented design in claim construction before application of the ordinary observer test).

Ordinarily, the task of “distinguishing between those features of the claimed design that are ornamental and those that are purely functional” is one that is undertaken in claim construction. *Egyptian Goddess*, 543 F.3d at 680. Here, however, neither party argued the issue in its claim construction briefing or in oral argument at the *Markman* hearing. The Court thus did not have occasion to construe the claims of the ’362 patent using descriptive language, instead relying on the visual depictions in the patent itself. Now, the parties would have the Court distinguish between the functional and ornamental elements of the design on summary judgment. The Court will rely on the numerous affidavits filed in support of summary judgment briefing to decide which elements of the ’362 design, if any, are functional. *See Colgate-Palmolive Co. v. Ranir, L.L.C.*, WL 2225888, 2 (D. Del. 2007) (concluding that claim construction of design patents involves “considerations that this court views as inherently factual and not likely to be evident from the intrinsic record, but rather, the type of factors on which trial courts routinely hear experts opine.”).

In *Amini Innovation Corp. v. Anthony Cal., Inc.*, 439 F.3d 1365 (Fed. Cir. 2006), the Federal Circuit defined functionality in the context of design patent interpretation. The court held that “[a]n aspect is functional ‘if it is essential to the use or purpose of the article or if it affects the cost or quality of the article.’” *Id.* at 1371 (quoting *Inwood Labs., Inc. v. Ives Labs., Inc.*, 456 U.S. 844, 850 n. 10 (1982)). Although the Court may consider a wide range of factors in making that determination, the parties focus primarily on two—the existence of a concomitant utility patent application and the existence of alternative designs. *See Berry Sterling Corp. v. Pescor Plastics, Inc.*, 122 F.3d 1452, 1455-56 (Fed. Cir. 1997).

Keurig’s expert offers the opinion that the three main features of the design (the circular shape of the lid, the overall tapered shape of the filter, and the depending skirt) are all ornamental, rather than functional, because obvious alternative design choices existed. (*See* Slocum Decl. at ¶ 17).

As to the shape of the lid, Keurig’s expert opines that, instead of a circular design, one of any number of polygonal shapes (such as a hexagon, octagon, or decagon) could have been chosen without compromising the fit of the cartridge with the circular brewer receptacle. (*See id.* at ¶¶ 26-27). JBR responds that because the brewer receptacle is circular, the choice of a circular lid for a beverage cartridge meant to fit into it was preferable and obvious. JBR points to Keurig’s own utility patent filing, which discloses the preferred embodiment of a “Disposable Beverage Filter Package” as having a “circular” top opening. (*See* U.S. App. No. 11/037,501 at ¶ 15). However, that utility patent application also discloses “various changes and modifications [that] may be made to the embodiment herein chosen for purposes of disclosure without departing from the scope of the claims appended hereto . . . includ[ing] the use of differently

shaped filter pouches and lids.” (*Id.* at ¶ 25). JBR has offered no evidence as to how changes to the lid shape, provided that they still permit the cartridge to fit in the brewer receptacle, would compromise the quality of the cartridge’s performance. Accordingly, the Court will treat the circular shape of the lid as an ornamental aspect of the patented design that may be considered in the comparison. *Amini Innovation Corp.*, 439 F.3d at 1371 (internal quotation omitted).

As to the tapered shape of the filter, Keurig’s expert opines that there are at least two alternative shapes that could have been used for the filter design. (*See id.* at ¶¶ 35, 37). In his opinion, the filter could have been either cylindrical or symmetrically conical. (*Id.*)⁵ JBR responds that it was known in the industry that tapered filters more effectively brewed coffee, citing the website of a large corporation in the industry that manufactures coffee filters (Melita) and Keurig’s own utility patent filings. (*See* Johnson Reply Decl. at Ex. 1; Johnson Decl. at Ex. 6). The Melita document unequivocally asserts that as between the filter shapes “[c]one (round top gradually tapering down to the bottom) and Basket (circular holder/filter with a flat bottom) . . . cone shaped holders with cone shaped filters are recommended as the design ensures optimal coffee saturation and extraction versus basket shaped holders/filters.” (*See* Johnson Reply Decl. at Ex. 1). Admittedly, there is no evidence that the public statements of Melita are supported by expert analysis; however, the company does manufacture both “cone” and “basket” shape filters, suggesting that it has no incentive to prefer one over the other. On the other hand, Keurig’s expert is a mechanical engineer who, though well-qualified, appears to have no direct experience

⁵ It is unclear to the Court how the “symmetrically conical” alternative design is significantly different from JBR’s design in terms of overall shape. Indeed, the images of this proposed design provided by Keurig’s expert appear very similar to JBR’s design. If Keurig’s position is that a symmetrically conical filter shape should be considered plainly dissimilar from the shape of the filter in the design of the ’362 patent, it is hard to imagine how the tapered hemispherical shape of the filter in the JBR cartridge should not also be considered plainly dissimilar.

designing coffee brewing systems and offers no opinion on the relationship between the shape of a filter and the quality of the resultant brewed coffee. Considering this record, the Court finds that general tapered shape of the filter does “[a]ffect the quality of the [beverage cartridge],” and therefore is a functional aspect of the patented design that cannot be considered in the comparison. *Amini Innovation Corp.*, 439 F.3d at 1371 (internal quotation omitted). However, the *specific* shape of the tapered filter remains a relevant point of comparison.

As to the depending skirt, Keurig’s expert opines in substance that it is an unnecessary ornamental feature. (*See* Slocum Decl. at ¶ 31). In his opinion, the filter could have been attached directly to the lid without the depending skirt providing support. (*Id.*). In response, JBR contends that the depending skirt is necessary because it accommodates heat sealing. (Rogers Decl. at ¶ 5). Keurig’s expert makes no mention of “heat sealing” *per se*, but does opine that the cartridge would function equally well with direct attachment of the filter to the lid. (*See* Slocum Decl. at ¶ 31). On this limited evidence, the Court cannot conclude that the depending skirt is “essential to the use or purpose of the article or . . . [that] it affects the cost or quality of the article,” and therefore the Court will treat it as an ornamental aspect of the patented design that may be considered in the comparison. *Amini Innovation Corp.*, 439 F.3d at 1371 (internal quotation omitted).

Constrained by the above findings as to the functional and ornamental aspects of the patented design, the Court must apply the “ordinary observer” test to determine if an ordinary purchaser of beverage cartridges would be deceived by the similarity of the JBR cartridge and the patented design. However, in doing so, the relevant potential deception is “deception that arises [as] a result of similarities in the overall design, not of similarities in ornamental features

considered in isolation.” *Amini Innovation Corp.*, 439 F.3d at 1371.

Viewing the JBR cartridge and the ’362 patent drawings side-by-side, and discounting the fact that the filter must generally be tapered for functional reasons, the Court notes a few similarities and differences. First, as implicitly recognized by the above discussion, both designs feature circular lids with depending skirts. The skirt on the JBR cartridge, however, does appear to be somewhat longer than the skirt in the ’362 patent drawings. Next, although both employ generally tapered filters, the JBR filter is more or less hemispherical while the filter in the ’362 patent drawings is shaped like a triangular prism; as a result, the JBR filter is not as long and is generally wider. Indeed, even Keurig appears to acknowledge these differences while maintaining that overall the designs are not “plainly dissimilar.” (*See* Kressy Decl. at ¶ 28). The Court disagrees.

When comparing the overall appearance of the JBR cartridge with the patented design, the largest and most prominent feature of both designs is the filter. The effect of the differences in this feature are similar to the differences between the “scalloped” and “smooth” edges and the “hour-glass” and “block” shapes that the court found “dominate[d] the overall visual appearance of the respective designs” in *Staples*. 763 F. Supp. 2d at 1011. As in that case, an ordinary observer here would conclude that the allegedly infringing product and the patented design serve the same function, but would not be deceived that they are one and the same. This is not a situation where the difference in appearance is caused by only “minor differences of detail . . . observable by experts, but not noticed by ordinary observers, by those who buy and use.” *Gorham*, 81 U.S. at 528. In contrast to *Crocs*, the Court is confident that “[i]f the claimed design and the accused designs were [scrubbed of all identifying logos] and mixed up randomly . . . an

ordinary observer could [in fact] properly restore them to their original order without very careful and prolonged effort.” 598 F.3d at 1306.

Accordingly, the design of the ’362 patent and the accused JBR design are “sufficiently distinct that it [is] clear without more that the patentee has not met its burden of proving the two designs would appear ‘substantially the same’ to the ordinary observer.” *Egyptian Goddess*, 543 F.3d at 678. Therefore, JBR’s motion for summary judgment on the ground of non-infringement of the ’362 patent will be granted.

2. Comparison to the Prior Art

Because the Court concludes that the JBR cartridge and the design of the ’362 patent are plainly dissimilar, it need not undertake any comparison to the prior art. *Egyptian Goddess*, 543 F.3d at 678.

B. Claims of the ’138 and ’488 Patents

Keurig further contends that JBR indirectly infringed upon the ’138 and ’488 patents by manufacturing and offering for sale beverage cartridges that can be combined with Keurig brewers to form an apparatus claimed in the ’138 patent and practice a method claimed in the ’488 patent. The relevant statutory provisions, 35 U.S.C. §§ 271(b) - (c), describe the two general types of indirect infringement, both of which are asserted here—inducement to infringe and contributory infringement. Pursuant to § 271(b), “whoever actively induces infringement of a patent shall be liable as an infringer.” Pursuant to § 271(c), “[w]hoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially

made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.” Infringement under these sections is known as “indirect infringement,” because the alleged infringers are not the entities that actually practiced the patented invention, but rather are separate entities that facilitated the practice of the patent. *See Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004) (“Indirect infringement, whether inducement to infringe or contributory infringement, can only arise in the presence of direct infringement.”); *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1326 (Fed. Cir. 2004) (“There can be no inducement or contributory infringement without an underlying act of direct infringement.”).

For that reason, Keurig must prove that there is underlying direct infringement in order to prove indirect infringement. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961) (“It is settled that if there is no direct infringement of a patent there can be no contributory infringement.”); *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1316 (Fed. Cir. 2012) (“this court on numerous occasions recited the familiar and uncontroversial proposition that one of the elements of induced infringement is proof that there has been direct infringement”).

Accordingly, Keurig must prove that the ultimate users of the Keurig brewers infringed the claims of the '138 and '488 patents when they used JBR beverage cartridges in them.

JBR contends that Keurig cannot assert infringement of the '138 and '488 patents because its rights under those patents have been exhausted. They further contend that the users of Keurig brewers do not directly infringe the claims of the '138 and '488 patents by using JBR beverage

cartridges because the doctrine of permissible repair allows them to replace spent cartridges with any brand of cartridge they choose.

1. Patent Exhaustion

a. Claims of the '138 Patent

“The longstanding doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item.” *Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 625 (2008). The doctrine embodies the principle that a patent holder receives full compensation for his patent rights when he sells a patented item; it would be unfair to permit the patent holder to control the purchaser’s further use of that item. In other words, a patent holder’s monopoly on the manufacture, use, or sale of a patented item terminates when he sells that item and receives compensation for it. *United States v. Univis Lens Co.*, 316 U.S. 241, 252 (1942) (“The first vending of any article manufactured under a patent puts the article beyond the reach of the monopoly which that patent confers.”). The compensation in such an exchange represents not only the cost of producing and distributing the item, but also the value of the inventive aspects of that item, which are the subject of the patent. Without the doctrine of patent exhaustion, a patent holder could effectively obtain windfall compensation from the ultimate user of a patented item by restricting the ways in which the item could permissibly be used.

Traditionally, the doctrine of patent exhaustion has been applied to apparatus claims, barring a patent holder from controlling the use of a claimed apparatus after its sale. Patent exhaustion also unquestionably applies to the situation where a patent holder sells, or licenses another to sell, a combination of products that together form the apparatus claimed in the patent. *See Sage Prods. v. Devon Indus.*, 45 F.3d 1575, 1579 (Fed. Cir. 1995).

The claims of the '138 patent at issue are apparatus claims. Claims 1 and 18 of the '138 patent collectively claim an apparatus for forming a beverage (in other words, a brewer) that utilizes a beverage cartridge with a beverage medium and a filter element. Because these are apparatus claims, the doctrine of patent exhaustion applies to them in its traditional formulation. It is undisputed that Keurig sold, or licensed others to sell, both the brewer and filtered beverage cartridges to consumers. Upon sale or license of these items, Keurig's rights under claims 1 and 18 of the '138 patent were exhausted. Therefore, Keurig cannot assert direct infringement of those claims by consumers and, as a result, cannot assert indirect infringement of those claims by JBR.

Accordingly, JBR's motion for summary judgment on the issue of infringement of the '138 patent will be granted.

b. Claims of the '488 Patent

Unlike the claims of the '138 patent at issue, the claims of the '488 patent are method claims. Claims 22 and 29 of the '488 patent collectively claim a method for forming a beverage that involves using a beverage-forming device (in other words, a brewer) that, among other things, pierces a beverage cartridge with an inlet probe.

In *Quanta*, the Supreme Court reaffirmed that the patent exhaustion doctrine applies to method claims as well as apparatus claims. 553 U.S. at 628-629 ("Nothing in this Court's approach to patent exhaustion supports [the] argument that method patents cannot be exhausted. . . . Our precedents do not differentiate transactions involving embodiments of patented methods or processes from those involving patented apparatuses or materials. To the contrary, this Court has repeatedly held that method patents were exhausted by the sale of an item that embodied the

method.”). Indeed, even Keurig acknowledges that patent exhaustion is a potential bar to its action for infringement here.

However, Keurig contends that *Quanta* changed the landscape of patent exhaustion with respect to method patents. Specifically, Keurig contends that the two-part “substantial embodiment” test derived from *Quanta* must always be used when analyzing the issue of whether method claims are exhausted by the sale of a product. That test requires the alleged infringer to show that the product sold, or licensed for sale, by the patent holder (1) included all the “inventive aspects” of the patent claims and (2) had no “reasonable non-infringing uses.” *Quanta*, 553 U.S. at 638. JBR contends that the “substantial embodiment” test does not apply to “completed products,” even when there are method claims at issue. JBR contends that the initial authorized sale of a “completed product” terminates the patent-holder’s rights to patented methods of using that product.

Whether patent exhaustion applies to method claims only if the “substantial embodiment” test is satisfied is a recent, but not entirely novel, inquiry. In fact, the district court in Delaware recently addressed the question in a similar case between Keurig and another producer of beverage cartridges. The Delaware court ultimately ruled against Keurig, and held that the “substantial embodiment” test was inapplicable because the brewers are “completed products,” not “incomplete” items. For the reasons set forth in greater detail below, this Court agrees in substance with the Delaware court’s holding.

The Delaware court reasoned as follows:

Univis and *Quanta* dealt with patent exhaustion and the sale of ‘incomplete’ items. Unlike those cases, [Keurig] sells a product that completely practices the patent. There is no dispute that the brewers, unlike the lens blanks in *Univis*, are sold in a completed form

in accordance with the patents. There is no need to determine the extent to which the brewers embody the patent when the brewers are sold in a completed form. For this reason, the court agrees with defendant that the two-prong test is inapplicable; instead, the ‘long-standing doctrine’ that an ‘initial authorized sale of a patented item terminates all patent rights to that item’ is applicable. . . .

Further . . . the *Quanta* Court has warned about the dangers of parties attempting an ‘end-run’ around the exhaustion doctrine via the use of method claims. The purpose of the patent exhaustion doctrine is to ensure that a patentee surrenders its statutory monopoly after it has received compensation for an article sold that embodies its patent. Were the court to find that the method claims were not exhausted because different types of cartridges—one time use versus reusable—could be utilized in a brewer, plaintiff would profit from brewer sales without forfeiting the right to sue those individuals who purchased plaintiff’s products. In other words, depending on the type of cartridge utilized by a Keurig brewer owner, plaintiff could sue a purchaser of its product. That outcome is contrary to the spirit of the doctrine and inappropriate on the given facts. As explained by the court in *Static Control Components, Inc. v. Lexmark Int’l, Inc.*, 615 F. Supp. 2d 575, 582 (E.D. Ky. 2009), a review of Supreme Court precedent on the law of patent exhaustion reveals that the Court has consistently held that patent holders may not invoke patent law to enforce restrictions on the postsale use of their patented products. After the first authorized sale to a purchaser who buys for use in the ordinary pursuits of life, a patent holder’s patent rights have been exhausted.’ Here, plaintiff is attempting to institute a postsale restriction that prevents non-Keurig cartridges from being used in Keurig brewers. Supreme Court precedent prevents plaintiff from undertaking such an end run.

Keurig, Inc. v. Sturm Foods, Inc., 2012 U.S. Dist. LEXIS 130762, 14-16 (D. Del. Sept. 13, 2012).

Keurig insists that the Delaware court erred and that the “substantial embodiment” test applies to all method claims, regardless of whether the product that practices the patent is “complete” when sold by the patent holder. Keurig argues that not only is the distinction between “complete” and “incomplete” products not part of the caselaw, it is also unworkable as a judicial standard. This Court disagrees as to both points.

The two foundational cases where the patent exhaustion doctrine was applied to method claims are *Univis*, 316 U.S. 241, and *Quanta*, 553 U.S. 617. In *Univis*, the Supreme Court determined that patent claims to methods for manufacturing eyeglass lenses, and to the finished

lenses themselves, were exhausted when the patent holder sold lens blanks (unpolished blocks of glass) to a manufacturer and distributor that polished and shaped the blanks into finished lenses by practicing the patented methods. *See* 316 U.S. at 250-51. The patent holder had tried to dictate the retail price of the finished lenses in part by asserting its patent rights. *See id.* The Supreme Court found that the method claims at issue were exhausted, holding that “where one has sold an uncompleted article which, because it embodies essential features of his patented invention, is within the protection of his patent, and has destined the article to be finished by the purchaser in conformity to the patent, he has sold his invention so far as it is or may be embodied in that particular article.” *Univis*, 316 U.S. at 250-251. The Court went on to explain that “whether the licensee sells the patented article in its completed form or sells it before completion for the purpose of enabling the buyer to finish and sell it, he has equally parted with the article, and made it the vehicle for transferring to the buyer ownership of the invention with respect to that article.” *Id.* at 252.

In *Quanta*, the Supreme Court determined that patent claims to methods for computer memory and data usage were exhausted when the patent holder licensed a manufacturer to produce and sell chipsets that could practice the patented methods when combined with memory and buses in a computer system. *See* 553 U.S. at 621. The patent holder had tried to dictate the computer system components that could be combined with the chipsets to practice the patented methods by asserting its patent rights after the chipsets were sold. *See id.* The Court compared the chipsets to the lens blanks in *Univis*, reasoning that “exhaustion was triggered by the sale of the lens blanks because their only reasonable and intended use was to practice the patent and because they ‘embodie[d] essential features of [the] patented invention.’ Each of those attributes is shared by the microprocessors and chipsets Intel sold to Quanta under the License Agreement.”

Quanta, 553 U.S. at 631 (internal citations omitted). The Court found that once the chipsets were sold, or licensed for sale, the patent holder's rights were exhausted, and, therefore, a purchaser did not infringe upon the patent by combining the chipsets with computer system components from other manufacturers. The Court held that "the traditional bar on patent restrictions following the sale of an item applies when the item sufficiently embodies the patent—even if it does not completely practice the patent—such that its only and intended use is to be finished under the terms of the patent." 553 U.S. at 628.

Contrary to Keurig's assertions, the Supreme Court did, in fact, emphasize the incomplete nature of the products sold by the patent holders in both *Univis* and *Quanta*. This is evident in the court's discussion in *Univis*, where it found that exhaustion applied both to situations where "the licensee sells the patented article in its completed form" and where he "sells it before completion for the purpose of enabling the buyer to finish and sell it." *Univis*, 316 U.S. at 242. The *Quanta* court addressed the question of whether, "although sales of an *incomplete* article do not necessarily exhaust the patent in that article, the sale of the [particular incomplete articles at issue nonetheless] exhausted LGE's patents" *Quanta*, 553 U.S. at 630 (emphasis added). That framing of the issue implies that sales of a "complete" article *do* necessarily exhaust the patent in that article. That line of reasoning depends on a legally operative distinction between "complete" and "incomplete" products.

The "substantial embodiment" test was created to provide a framework for determining whether the sale of a component product, which by itself is not a complete product and cannot practice the patented method, is still sufficient to exhaust a patentee's right to sue purchasers who then practice the claimed methods using that component as part of a system or larger apparatus. That is evident from the two prongs of the *Quanta* test (a product (1) including all the "inventive

aspects” of the patent claims and (2) having no “reasonable non-infringing uses.”). First, if a component product does not embody all the inventive aspects of a method patent, a patentee has, at the very least, clearly not forfeited his rights to those inventive aspects that are not embodied by the product. Second, if the component product has many reasonable uses, only some of which infringe upon the method patent, not all purchasers would be willing to pay a price for that product that reflected the value of the method patent rights. Neither of these concerns are present when the product at issue is not a component, but rather a complete apparatus intended to be used to practice the patented method. Accordingly, the Court finds that the “substantial embodiment” test is inapplicable to “complete” products that are intended to practice a patented method.

The more difficult question that has not been squarely addressed by the Supreme Court or the Federal Circuit is at what point a product becomes “complete.” Although the Supreme Court did not fully expound on the distinction in either *Univis* or *Quanta*, both opinions do provide some guidance. The *Quanta* and *Univis* line of cases attempted to deal with products that were not “completed” in the sense that they were not ready for sale to the ultimate consumer or user. As discussed above, *Univis* distinguished between the sale of a product in its “completed form” and the sale of a product “before completion for the purpose of enabling the buyer to finish and sell it.” *Univis*, 316 U.S. at 242. Notably, the Court did not refer to enabling the buyer to “finish and use” the product. This is in accord with the Court’s determination in *Quanta* that “the incomplete article substantially embodies the patent because the only step necessary to practice the patent is the application of common processes or the addition of standard parts.” *Quanta*, 553 U.S. at 633. Based on that line of reasoning, the definition of a “complete” product is an article that is ready for consumer sale and use without the application of other manufacturing processes or the addition of component parts. This description of what constitutes a “complete”

product is not unworkable (and quite sensible in light of the caselaw).

It is undisputed that to practice the claims of the method patents at issue, a Keurig brewer must be combined with a beverage cartridge. However, that is a step that is intended to be accomplished by the ultimate user *after* the sale of the brewer. Such a step is more akin to supplying the apparatus with required resources (such as water or electrical power) than it is to applying a manufacturing process or adding a component part necessary for the apparatus to be complete. Notably, the apparatus also functions without the insertion of a beverage cartridge; it can simply produce hot water. In contrast, the chipsets in *Quanta* did not function at all without being combined with memory and buses in a computer system.⁶

Indeed, the Delaware court found that “plaintiff sells a product that completely practices the patent,” and went on to distinguish the brewers at issue here from the lens blanks at issue in *Univis* by remarking that “unlike the lens blanks in *Univis*, [the brewers] are sold in a completed form in accordance with the patents.” *Keurig, Inc. v. Sturm Foods, Inc.*, 2012 U.S. Dist. LEXIS 130762 (D. Del. Sept. 13, 2012). By the definition articulated above, this Court likewise finds that the Keurig brewers at issue are in fact “complete” products because they are intended for sale to the consumer for his or her use without the application of other manufacturing processes

⁶ Another formulation of the operative distinction in *Quanta* is between products that “completely practice the patent” and those that only “sufficiently embod[y] the patent,” with only the latter requiring the application of the “substantial embodiment” test. 553 U.S. at 628 (explaining *Univis* to hold that “the traditional bar on patent restrictions following the sale of an item applies when the item *sufficiently embodies the patent*—even if it does not *completely practice the patent* . . .”). Under that formulation, the Keurig brewers “completely practice” the claims of the ’488 patent. Keurig argues that because the brewers require the insertion of a beverage cartridge to practice the claimed methods, the apparatus itself cannot be found to “completely practice” the patent. The Court disagrees. On Keurig’s reasoning, it is likely that no apparatus could ever be found to “completely practice” a patented method because almost all apparatuses require resources, such as raw materials, fuel, or even manpower, to function. For example, a patented method for forming concrete using a particular mixer apparatus is certainly “completely practiced” by the mixer apparatus even if it is not sold with the dry concrete, water, and fuel necessary to operate it; Keurig’s reasoning would suggest otherwise. In contrast, the chipsets in *Quanta* required more than the provision of resources to practice the claimed methods; they required further assembly and combination with other complex computer components. The Keurig brewers at issue here are more like the cement mixer than the computer chipset, and the Court accordingly finds that they indeed “completely practice” the patented methods.

or the addition of component parts. Therefore, Keurig cannot assert direct infringement of the method claims by consumers and, as a result, cannot assert indirect infringement of those claims by JBR.

To rule otherwise would allow Keurig an end-run around the exhaustion doctrine by claiming methods as well as the apparatus that practices them, which is a tactic that the Supreme Court has explicitly admonished. *See Quanta*, 553 U.S. at 630 (“This case illustrates the danger of allowing such an end-run around exhaustion.”). As the Delaware court pointed out, “a review of Supreme Court precedent on the law of patent exhaustion ‘reveals that the Court has consistently held that patent holders may not invoke patent law to enforce restrictions on the postsale use of their patented products. . . .’” *Sturm Foods*, 2012 U.S. Dist. LEXIS 130762 at 16 (quoting *Static Control Components, Inc. v. Lexmark Int’l, Inc.*, 615 F. Supp. 2d 575, 582 (E.D. Ky. 2009)). On Keurig’s theory, although a consumer may purchase a Keurig brewer, he or she could nonetheless be liable for patent infringement if he or she did not use Keurig beverage cartridges when operating the brewer.⁷ Such a result would violate the longstanding principle that, when a product is “once lawfully made and sold, there is no restriction on [its] use to be implied for the benefit of the patentee.” *Quanta*, 553 U.S. at 630 (quoting *Adams*, 17 Wall., at 457, 17 Wall. 453, 21 L. Ed. 700, 1885 Dec. Comm’r Pat. 438).

Accordingly, JBR’s motion for summary judgment on the issue of infringement of the ’488 patent will be granted.

⁷ Also telling is the fact that the alleged non-infringing use asserted by Keurig (the use of a reusable beverage cartridge) is only non-infringing in that it does not practice the “piercing” step of dependent claim 29, but it does practice all of independent claim 22. Therefore, the user would still theoretically be liable for infringement if the patent were not exhausted upon the sale of the brewer.

2. Permissible Repair

It is well-established that “[t]he right of ‘repair’ follows from the exhaustion of a patentee’s right to control the disposition of a patented article after it has been sold. The owner may use, repair, and modify the device as long as there is not ‘reconstruction of the entity as to ‘in fact make a new article.’” *Surfco Haw. v. Fin Control Sys. Pty.*, 264 F.3d 1062, 1066 (Fed. Cir. 2001) (citing *Aro Manufacturing*, 365 U.S. at 346). JBR contends that the doctrine of permissible repair allows users of Keurig brewers to replace spent beverage cartridges with cartridges manufactured and sold by entities other than Keurig. Keurig does not contend that replacing a spent beverage cartridge with a new one amounts to impermissible reconstruction of the patented product. Instead, Keurig contends that patent exhaustion is a necessary prerequisite to the operation of the doctrine of permissible repair, and that its rights to the patent claims at issue have not been exhausted.

The Court agrees that “[t]he affirmative defense of repair only applies to products whose patent rights have been exhausted . . .” *Fuji Photo Film Co. v. ITC*, 474 F.3d 1281, 1293 (Fed. Cir. 2007); *see also Fuji Photo Film Co. v. Jazz Photo Corp.*, 394 F.3d 1368, 1372 (Fed. Cir. 2005) (“the repair affirmative defense is based upon the exhaustion doctrine.”). However, for the reasons set forth above, the Court finds that the patent claims at issue have all been exhausted. Accordingly, the doctrine of permissible repair allows users to replace spent cartridges with whatever parts they choose without infringing upon Keurig’s patents. Therefore, Keurig cannot assert direct infringement of its patents by users and, as a result, cannot assert indirect infringement of its patents by JBR.

Accordingly, JBR’s motion for summary judgment on the issue of infringement of the

'138 and '488 patents will be granted.

IV. Conclusion

For the foregoing reasons, JBR's motions for summary judgment as to the infringement of U.S. Patent No. D502, 362; U.S. Patent No. 7,165,488; and U.S. Patent No. 7,347,138 are GRANTED.

So Ordered.

/s/ F. Dennis Saylor
F. Dennis Saylor IV
United States District Judge

Dated: May 24, 2013