

United States District Court,  
E.D. Pennsylvania.

**Kimberly F. McGOWAN,**  
Plaintiff.

v.

**CHURCH & DWIGHT CO., INC,**  
Defendant.

**Dec. 12, 2008.**

**Background:** Suit was brought alleging infringement of patent disclosing an odor adsorptive filter for refrigerators and freezers.

**Holdings:** In construing disputed claim terms, the District Court, Gene E.K. Pratter, J., held that:

- (1) "filter housing" meant a container for a filter element;
- (2) phrase "porous structural matrix holding at least one odor adsorbent chemical therein" meant a porous structure which contained interstitial spaces in which the adsorbent material was present; and
- (3) function of claim phrase "means for indicating the need for replacement of said filter element when said odor adsorbent chemical has been saturated with odoriferous matter" meant to indicate the need to replace the filter element upon detecting that the odor adsorbent chemical had been saturated with odoriferous matter or otherwise was no longer able to absorb odoriferous matter, and the corresponding structure was an indicator which extended from the filter element.

Claim terms construed.

6,346,143. Construed.

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PA, for Defendant.

### ***MEMORANDUM AND ORDER***

**GENE E.K. PRATTER, District Judge.**

Kimberly F. McGowan claims patent infringement by Church & Dwight Co. ("C & D") of her U.S. Patent No. 6,346,143 ("the '143 Patent"). FN1 The '143 Patent is entitled "Odor Adsorptive Filter for Refrigerators and Freezers." The Court now considers the issue of the proper construction of claims of the '143 Patent pursuant to *Markman v. Westview Instruments, Inc.* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). The Court held a *Markman* hearing on November 19, 2008.

FN1. Each party attaches the '143 Patent as Exhibit A to the party's memorandum submitted to the Court for this matter.

## I. Standard

Patent infringement cases typically involve a two-part analysis. First, the meaning and scope of any disputed claims FN2 must be determined. Thereafter, the properly constructed claims are compared to the device or method they are accused of infringing. *Vivid Techs., Inc. v. American Science & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed.Cir.1999). The first step, known as "claim construction," "is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement." *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed.Cir.1997). "Claim construction is a matter of law to be determined by the court." *Synthese (U.S.A.) v. Howmedica Osteonics Corp.*, 2008 U.S. Dist. LEXIS 23291, at \*3, 2008 WL 783569, at (E.D.Pa. Mar. 24, 2008) (citing *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996)).

FN2. Claims "define[ ] the scope of a patent grant and function[ ] to forbid not only exact copies of an invention, but products that go to the heart of an invention but avoid[ ] the literal language of the claim[s] by making a noncritical change." *Markman*, 517 U.S. at 373-74, 116 S.Ct. 1384 (internal quotation marks and citations omitted).

In the claim construction process, the Court must "determine the ordinary and customary meaning of undefined claim terms as understood by a person of ordinary skill in the art at the time of the invention." *Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1360 (Fed.Cir.2007). "[T]he court looks to those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean." The Court considers four main sources: (1) the words of the claims themselves, (2) the specification, FN3 (3) the prosecution history, and, if necessary, (4) "extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed.Cir.2005) (internal quotation marks and citations omitted). "Claim construction must begin and remain centered on the claim language itself." *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.* 381 F.3d 1111, 1116 (Fed.Cir.2004).

FN3. The two distinct elements of a patent document are the claims themselves and the specification. *Markman*, 517 U.S. at 373, 116 S.Ct. 1384. The required contents of the specification are set forth in 35 U.S.C. s. 112: "The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

Patent claim construction often engenders trepidation. However, "[i]n some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and the claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314. This is not always possible, of course, and when "the meaning of a claim term as understood by persons of skill in the art is ... not immediately apparent," the court may look to "those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean." *Id.* (citations omitted). Such sources include, the words of the claims themselves, the specification, the prosecution history, and extrinsic evidence. *Id.*

"The specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of the disputed term.' " Id. (quoting Vitronics, 90 F.3d at 1582). However, "although the specification often describes very specific embodiments of the invention, [courts] have repeatedly warned against confining the claims to those embodiments." Id. at 1323. The Court must balance between appropriate limits and excessive limits. "[T]he line between construing terms and importing limitation can be discerned with reasonable certainty and predictability if the court's focus remains on understanding how a person of ordinary skill in the art would understand the claim terms. [A]lthough the specification often describes very specific embodiments of the invention, [the Federal Circuit has] repeatedly warned against confining the claims to those embodiments." Id. at 1323. However, if a "specification makes clear at various points that the claimed invention is narrower than the claim language might imply, it is entirely permissible and proper to limit the claims." *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1370 (Fed.Cir.2003). According to the Court of Appeals for the Federal Circuit, "[u]ltimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." Phillips 415 F.3d at 1316.

Phillips resolved certain conflicting precedents by holding that the specification of a patent is the best guide to the meaning of the claim terms, and that it is improper to elevate dictionary definitions above the specification. In particular, Phillips reaffirmed that the specification is the "single best guide" to the meaning of disputed claim language. Id. at 1321 (citing Vitronics, 90 F.3d at 1582). It remains proper to give claim language its ordinary and customary meaning, so long as the meaning aligns with the description of the invention in the patent. Id. at 1312-13 (citations omitted).

However, if the prosecution history is provided (as it is in Ms. McGowan's case), the Court may consider it. Id. at 1317. "The prosecution history ... consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent." Id. "The prosecution history may provide further explanation of the patent and explain how the PTO and inventor understood the patent." *Synthes*, 2008 U.S. Dist. LEXIS 23291, at \*7, 2008 WL 783569, at \*2. "Yet because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." Phillips, 415 F.3d at 1317.

Finally, the Court may consider is extrinsic evidence, which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Markman*, 52 F.3d at 980. However, the Vitronics opinion warns that extrinsic evidence should be considered only if necessary. 90 F.3d at 1583. In short, "extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." Phillips, 415 F.3d at 1319.

With this understanding of the applicable standards for the ensuing analysis, the Court turns to the dispute at hand.

## **II. Discussion**

[1] During claim construction analysis, "only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy." *Vivid Techs*, 200 F.3d at 803. Here, the parties dispute the construction of six terms or phrases of the claims-in-suit, as discussed individually below.

### **A. Disputed Claim Terms/Phrases-Non-Mean-Plus-Function**

#### **1. Disputed Claim Term/Phrase 1-Filter Housing**

[2] Ms. McGowan argues that the term "filter housing" should be defined to mean: "a container for a filter element." Plaintiff's Memo. at 9. C & D asserts that the term "filter housing" should be defined to mean: "a housing for containing a filter element," but sensibly agrees that "there is very little practical difference" between the two, so that "either formulation of the term 'filter housing' would be acceptable." Def. Memo. at 13. Accordingly, the Court concludes that disputed claim term 1, to wit, "filter housing," means: "a container for a filter element."

## **2. Disputed Claim Term/Phrase 2- "Front Panel" and "Rear Panel"**

[3] Next, Ms. McGowan contends that the term "front panel" should be defined to mean: "a front piece forming a part of the surface of a filter housing used to hold a filter element," and that the term "rear panel" should be defined to mean: "a rear piece forming a part of the surface of a filter housing used to hold a filter element." Plaintiff's Memo. at 11. C & D argues that the term "front panel" should be defined to mean: "a flat, rectangular piece on the front of the housing," while the term "rear panel" should be defined to mean: "a flat, rectangular piece on the rear of the housing that is opposite to the front panel." Def. Memo. at 13-14.

The terms "front panel" and "back panel" are used in claims 1 and 8 in the following context: "a filter housing having at least a front panel, a rear panel opposite said front panel, and an interior for holding a filter element therein; said front panel and said rear panel including at least one air circulation passage there through, for circulation of air through said interior of said filter housing...." '143 Patent at col.7 1.65-col.8 13; col.8 1.36-42. Although the specification does not define the term "panel" as used in the '143 Patent, it does provide the following preferred embodiment of front and rear panels:

The front elevation view of FIG.2 clearly illustrates the front panel 18 of the housing 12. The front panel 18 essentially comprises an open frame with a grid 20 disposed there across, to provide a series of air circulation passages 22 there through for the filter element 14 to communicate with the ambient air. The filter element 14 is retained behind the front panel 18 of the housing 12 by an inwardly facing lip 24 about the periphery of the front panel 18, and the grid structure 20 disposed across the front panel 18.

The side elevation view in section of FIG. 3 illustrates further details of the present invention. In FIG. 3, the rear panel 28 is clearly shown opposite the front panel 18, with the two panels 18 and 28 defining a housing interior 30 there between for holding the filter element 14 therein. The rear panel 28 also includes at least one air circulation passage 32 there through.

'143 Patent at col.5 1.30-46. Accordingly, Ms. McGowan argues that "a preferred embodiment of the invention discloses that the front and rear panels may be 'an open frame with a grid disposed there across.'" Plaintiff's Memo. at 12. The descriptions of the preferred embodiments do not endeavor to limit the shape of the panels.FN4

FN4. Ms. McGowan recognizes that the second element of claims 1 and 8 recites a limitation relating to the "panel," that is, it requires that "said front panel and said rear panel includ[e] at least one air circulation passage there through, for circulation of air through said interior of said filter housing ..." '143 Patent at col.7 1.65-67; col.8 1.36-38. However, Ms. McGowan asserts that "this limitation does not need to define the claim term 'panel.'" She notes that her proposed definition is still subject to the limitation, Plaintiff's Memo. at 12, and it is apparent that Defendant's proposed definition likewise would be limited. Accordingly, the limitation does not affect the Court's analysis of the claim construction.

C & D asserts that Ms. McGowan's proposed construction is "vague and ambiguous" because it "fails to provide any more meaning or precision to the disputed terms ... than the original claim language." Def. Memo. at 14. C & D argues that the claim language, specification, opinion of a person of ordinary skill in the art of air filtration, and numerous dictionary references all lead to defining "front panel" to mean "a flat,

rectangular piece on the front of the housing," and defining "rear panel" to mean "a flat, rectangular piece on the rear of the housing that is opposite to the front panel."

C & D justifies its proposed definitions by emphasizing that "the claim language expressly described the spatial configuration of the two panels as being opposite to one another. Such an orientation teaches to one of ordinary skill in the art of filtration that the panels are flat and are arranged so as to face directly opposite each other." Def. Memo. at 14. While the claim language does specify that the panels are opposite one another, it nowhere states that the panels could not be curved or convex. Each of the eight figures disclosed in the '143 Patent shows a device with outer housing comprised of two flat, rectangular panels that lie opposite of each other, *see* '143 Patent at figs. 1-8, and Ms. McGowan's prototypes of the invention used housing panels made from flat, rectangular pieces of material with rounded corners that lay opposite to one another. *See* Def. Memo., Ex. E (K000398 & KM000400). However, Ms. McGowan notes that such preferred embodiments were "[m]erely examples of what a panel is, not restrictions of what a panel is." Hrg. Tr. 11/19/08 at 14:20-21. There is no basis for concluding that only a rectangular shape is available.

C & D urges the Court to consider extrinsic evidence from dictionary definitions and expert testimony. However, where the intrinsic evidence is sufficient to resolve any ambiguity in a claim term, "it is improper to rely on extrinsic evidence," *Vitronics*, 90 F.3d at 1583. The Court concludes that the ordinary and customary meaning of the terms "front panel" and "rear panel" aligns with the description of the invention in the patent in such a manner that consideration of extrinsic evidence would be improper. Accordingly, the disputed claim term "front panel" means "a front piece forming a part of the surface of a filter housing used to hold a filter element," and "rear panel" means "a rear piece forming a part of the surface of a filter housing used to hold a filter element."

### **3. Disputed Claim Term/Phrase 3-Removably Disposed**

[4] The term "removably disposed" is used in Claim 1 in the following context: "a filter element removably disposed within said interior of said filter housing...." '143 Patent at col.8 1.4-5. Ms. McGowan argues that the term "removably disposed" should be defined to mean: "placed such that it is capable of being removed." Plaintiff's Memo. at 14. C & D argues that the term should be defined to mean: "placed so that it is removable in the normal and intended use of the device to permit replacement of a spent filter element." Def. Memo. at 16.

Ms. McGowan argues that her proposed definition of "removably disposed" is consistent with the specification of the '143 Patent. Although the patent does not define this claim term, it does disclose the following preferred embodiments of a "removably disposed" filter element:

The present filter essentially comprises a filter housing which is removably secured to a back or side wall of the refrigerator or freezer interior (suction cups, etc.) and a filter element removably installed therein.

\* \* \* \*

It is another object of the invention to provide an improved odor adsorptive filter incorporating a removably installable filter housing and a filter element which is removably installable within the housing.

\* \* \* \*

In FIG. 8, the housing filter assembly 10c includes an open side 44, exposing the filter element 14a there through. In the case of the filter assembly 10c, it is not necessary to access screws or other threaded fasteners in order to remove and replace the filter element 14a. Rather, the filter element 14a may be removed simply by withdrawing it from the housing 12c through the side opening 44, an acing with a fresh filter element 14a through the same opening 44. (A slightly raised lip 46 may be provided about the

periphery of the opening 44, in order to retain the filter element 14a within the housing 12a).

'143 Patent at col.3 1.64-67; col.4 1.24-25; col.7 1.4-13. Ms. McGowan argues that the specification does not express a clear intention to limit how the filter element is "removably disposed" to the means disclosed in the preferred embodiments, and she again quotes language from the '143 Patent stating, "the present invention is not limited to the embodiments described...." Id. at col.7 1.57-60.

C & D argues that Ms. McGowan is mistaken in her assertions regarding the "removably disposed" filter because the specification "reaffirms time and time again that a critical feature of the filter element is that it can easily be removed and replaced in the normal and intended use of the device." Def. Memo. at 16. According to C & D, the specification "is rife with discussion about the importance of a replaceable filter element," including:

The filter element is in turn removably secured within the filter housing, for replacement as necessary.

\* \* \* \*

The present filter contains an exchangeable odor adsorptive filter element.

\* \* \* \*

In this embodiment, the front panel 18b is removed from the housing 12b for removal and replacement of the filter element 14 therein.

\* \* \* \*

The filter of the present assembly is easily exchanged for a new unit when an old filter becomes saturated with odoriferous matter.

'143 Patent at Abstract; col.1 1.44-45; col.3 1.61-62; col.6 1.65-67; col.7 1.45-47.

C & D further argues that the '143 Patent specifications repeatedly distinguish the removably disposed filter from prior art, thus substantiating C & D's construction of the disputed term. For example, the patent distinguished the claimed invention from the prior art reference U.S. Patent No. 4,995,556 ("Arnold") because the Arnold deodorizing devices "are essentially throwaway units at the ends of their lives, with no provision for changing the deodorant substance within the container being provided." '143 Patent at col.2 1.26-29. The '143 Patent similarly distinguished the claimed invention from U.S. Patent No. 5,062,272 ("Burns"). Burns discloses a refrigerator deodorizer comprising a cylindrical canister containing an odor adsorbent chemical, and the '143 Patent differentiated itself from Burns, in part, because "the Burns device does not provide for replacement of the adsorbent material within the container; the entire container and contents must be discarded when the contents have expired." Id. at col.2 1.40-43.

C & D notes that the '143 Patent similarly distinguished its claims from U.S. Patent No. 5,492,675 ("Brizard"), another refrigerator deodorizer, on the basis that the Brizard container "must be discarded in its entirety when the adsorbent material therein is no longer effective." Id. at col.3 1.18-19. Finally, the '143 Patent differentiates U.S. Patent No. 5,468,477 ("Bermas"), another refrigerator deodorizer consisting of a vented plastic container enclosing odor adsorptive materials. Again, the '143 Patent notes that "the entire assembly of container and contents of the Bermas device must be discarded when the contents have expired." Id. at col.3 1.1-2. Notably, the Bermas device has two vented panels with an odor-absorbing material in between. C & D asserts that the configuration "is significant because Bermas would have anticipated Claim 1 of the '143 Patent pursuant to 35 U.S.C. s. 102 under [Ms.] McGowan's proposed construction because it could be opened to allow for the removal of the filter element and otherwise meets

all the other limitations of that claim." Def. Memo. at 18. C & D argues that under Ms. McGowan's "overbroad" proposed construction, the term "removably disposed" would include "almost anything that is nested within something else....Such an unhelpful construction fails to provide any precision to a term that is manifestly important to the nature and purpose of the invention disclosed and claimed in the '143 Patent." Id. at 18-19. C & D asserts that Ms. McGowan's construction "further fails to comport with the specification and teachings of the patent, as well as the explicit prior art references that were overcome to demonstrate novelty." Id. at 19.

Having considered the parties' respective arguments, the Court concludes that the ordinary and customary meaning of the term aligns with the description of the invention in the patent in such a manner that the consideration of extrinsic evidence as urged by C & D would be improper. Accordingly, disputed claim term 3 means: "placed so that it is removable in the normal and intended use of the device."

#### **4. Disputed Claim Term/Phrase 4-Porous Structural Matrix Holding at Least One Odor Adsorbent Chemical Therein**

[5] Ms. McGowan argues that the term "porous structural matrix," as used in Claims 1 and 8, should be defined to mean: "something constructed or arranged within which something may take form and through which air may pass." Plaintiff's Memo. at 17. C & D argues that the term should be construed as "porous structural matrix holding at least one odor adsorbent chemical therein," and that the term should be defined to mean: "a porous structure which contains interstitial spaces in which the adsorbent material is present." Def. Memo. at 20; Hrg. Tr. 11/19/08 at 71:7-9. Because the phrase "porous structural matrix" is too likely to be meaningless without the concomitant description of its purpose, the Court will consider the meaning of the disputed claim phrase "porous structural matrix holding at least one odor adsorbent chemical therein." See '143 Patent at col.8 1.6-7; col.8 1.45-46.

Although the specification does not define this claim term, it does provide the following preferred embodiment of a filter element:

The filter element 14 may be formed of any suitable porous material which is capable of holding a reasonable quantity (e.g., a few ounces or so) of odor adsorptive material therein. The filter element 14 may be formed of a nonwoven fibrous material 34, as indicated generally in FIGS. 2 and 3, or may be formed of a woven fibrous material 36, as indicated in FIGS. 4 through 8.

'143 Patent at col.6 1.3-9.

Ms. McGowan asserts that the '143 Patent details a filter element holding an odor adsorbent chemical, not necessarily a filter element embedded with the chemical. See Plaintiff's Memo. at 19-20. Claims 1 and 8 specifically recite "a filter element comprising a porous structural matrix holding at least one odor adsorbent chemical." '143 Patent at col.8 1.6-7; col.8 1.45-46. Claim 15, however, recites "a filter element comprising a porous matrix of fibers; at least one odor adsorbing chemical embedded in and coating said fibers of said porous matrix, thereby providing max surface area exposure of said odor adsorbent chemical." Id. at col.9 1.11-13. Ms. McGowan argues that because the earlier claims include the word "holding," while the later claim includes the more limited word "embedded," "it is clear that 'holding' can include but is not limited to embedment of the adsorbent chemical." Plaintiff's Memo. at 21.

C & D asserts that "[t]he phrase in question manifestly describes a particular physical configuration and accompanying characteristics for the filter element of [Ms.] McGowan's invention, without which a valid patent could not have been issued over the prior art by the PTO. The '143 Patent contains a concise and precise description of the filter element." Def. Memo. at 21. The Abstract describes the filter element as comprising "a woven or nonwoven fiber material, with the fibers being coated or impregnated with an odor adsorbent material such as baking soda and/or activated carbon in some form." The Summary of the

Invention also describes the filter element as comprising "a woven or nonwoven fiber material, with the odor adsorptive material (baking soda, activated charcoal, etc.) coating the fibers to provide maximum exposed surface area for the adsorptive material." '143 Patent at col.3 l.67-col.4 l.4.

C & D then argues, "the stated purposes of the invention emphasize the particular spatial relationship between the fibers and the adsorptive chemical." Def. Memo. at 21. *See, e.g.*, '143 Patent at col.4 l.12-16 ("The present odor adsorptive filter provides a significant improvement in efficiency over conventional boxes or containers of baking soda which require shelf space and do not provide the efficiency of the coated fibrous elements of the present filter."); *id.* at col.4 l.30-34 ("Yet another object of the invention is to provide an improved odor adsorptive filter which filter element comprises a woven or nonwoven fibrous structure, with the odor adsorptive material coating the fibers of the filter element to maximize the surface area of the odor adsorptive material.")

The "Figures in the '143 Patent further confirm that the adsorptive chemical is intended to lie embedded within the interstices of the fibers making up the filter element." Def. Memo. at 22. For example, in referring to Figure 4, the patent states that "[t]he fibers 34 and 36 may be coated with a very thin adhesive blown through the filter element 10, with the adsorbent compounds being provided as a powder and blown through the filter element 10 to adhere to the adhesively coated fibers 34 and 36. Alternatively, the fibers 34 and 36 may be coated with a substance to capture the adsorbent compounds, before assembly into a filter element." '143 Patent at col.6 l.30-36. The patent concludes that "the filtration element of the present invention provides a much more efficient means of exposing the maximum surface area of the adsorbent chemicals to the ambient air within the refrigeration unit, by coating the fibers of the filter with the adsorbent material." '143 Patent at col.7 l.48-52.

Finally, C & D argues that the accuracy of its proposed construction is confirmed by the '143 Patent specification's repeated distinguishing of the claimed invention over the prior art. *See* Def. Memo. at 22. The patent specifically states that the Arnold reference "does not disclose the saturation or impregnation of a fiber matrix with an odor adsorbent material ... as provided by the present invention." '143 Patent at col.2 l.30-33. Further, in differentiating U.S. Patent No. 5,422,078 ("Colon"), the '143 Patent states that the insert described therein "differs in construction from the adsorbent insert of the present invention, in that Colon uses a relatively dense thermoplastic material, while the present invention uses a woven or nonwoven fiber insert, with the fibers being coated with the adsorbent material to expose the maximum practicable surface area of adsorbent to the ambient air." *Id.* at col.2 l.59-62. Similarly, the '143 Patent critiques U.S. Patent No. 5,468,447 for "not provid[ing] the means developed for the present invention of exposing the maximum practicable surface area of the adsorbent material to the air, by coating the fibers of a woven or nonwoven fiber mesh with the adsorbent material." *Id.* at col.3 l.5-10.

[6] Under patent law, courts should follow the principle that, whenever possible, claims should be construed to preserve their validity. *See, e.g.*, Phillips, 415 F.3d at 1327. In following this principle, courts may look "to whether it is reasonable to infer that the PTO would not have issued an invalid patent," and, thus, whether "the ambiguity in the claim language should therefore be resolved in a manner that would preserve the patent's validity." *Id.* C & D asserts that odor-absorbing pouches containing baking soda were previously disclosed in the prior art. *See, e.g.*, U.S. Patent No. 5,046,604 ("Forhertz") (disclosing and claiming an odor-absorbing self-liner made of two sheets stitched together to form a pouch and containing baking soda). "Thus, construing the disputed phrase as [Ms.] McGowan advances would encompass the Forhertz pouches, thereby rendering the claim ['143 Patent] invalid. In short, [Ms.] McGowan contravenes well established principles of claim construction in an effort to interpret the disputed phrase in as broad a way as possible." Def. Memo. at 24. Her proposed claim construction ignores the '143 Patent's emphasis on maximizing the surface area of the odor adsorbent chemical for interaction with the air moving through the device. *See* Hrg. Tr. 11/19/08 at 73:10-11.

Although Ms. McGowan argues that C & D's construction of the phrase "porous structural matrix holding at



least one odor absorbent chemical therein" is too narrow, the '143 Patent, its specifications and the general principles of patent law support C & D's construction. Accordingly, the disputed claim phrase 4 means, "a porous structure which contains interstitial spaces in which the adsorbent material is present."

## **B. Disputed Claim Terms/Phrases-Means-Plus-Function**

[7] If a limitation in a claim for a combination is written as a "means or step for performing a specified function without the recital of structure material, or acts in support thereof," then "such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. s. 112. Where a claim uses the word "means" to describe a claim element, the Court should presume "that the inventor used the term advisedly to invoke the statutory mandates for mean-plus-function clauses." *Altiris, Inc. v. Symantec Corp.* 318 F.3d 1363, 1375 (Fed.Cir.2003) (citation omitted). Even where the word "means" is absent, a limitation may be a means-plus-function element "when it is apparent that the element invokes purely functional terms, without the additional recital of specific structure or material for performing that function." *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256,1259-60 (Fed.Cir.2008).

[8] [9] [10] Ms. McGowan and C & D seek construction of two means-plus-function limitations in the '143 Patent. The Court must follow a two-step process in evaluating the limitations. "First, the Court must determine the claimed function." *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 (Fed.Cir.2002). The Court should be careful not to "defin[e] a claimed function to require more than is actually claimed." *Applied Medical Resources Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1333-34 (Fed.Cir.2006) "Second, the court must identify the corresponding structure in the written description of the patent that performs that function." *Id.*, at 1332. "The specification must clearly associate the structure with performance of the function." *Cardiac Pacemakers*, 296 F.3d at 1113. Where the specification discloses only a single structure corresponding to the claimed function, the element is limited to that structure, to the extent that it is necessary to fully perform the stated function. *See Cortland Line Co. v. Orvis Co., Inc.*, 203 F.3d 1351, 1357 (Fed.Cir.2000) (limiting the construction to a single structure "[b]ecause the specification describes only one structure corresponding to the connecting function").

### **1. Disputed Claim Term/Phrase 5-Means for Indicating the Need for Replacement of Said Filter Element When Said Odor Adsorbent Chemical Has Been Saturated with Odoriferous Matter**

[11] Ms. McGowan argues that the element from Claims 5 and 8 reading: "means for indicating the need for replacement of said filter element when said odor adsorbent chemical has been saturated with odoriferous matter" should be defined so that its claimed function is "to indicate the expiration or saturation of the adsorptive powers of the odor adsorbent chemical," while the corresponding structures include col.3 l.27-32, col.4 l.8-12, and col.7 l.17-35. Plaintiff's Memo. at 22-23. C & D argues that construction of the disputed term should be: "the structural means disclosed in the specification and equivalents for performing the function of indicating the need to replace the filter element, which extends from the filter element, upon detecting that the odor adsorbent chemical has been saturated with odoriferous matter, as construed in accordance with Paragraph 6 of Section 112 of Title 35, U.S.C." Def. Memo. at 25.

#### **a. Claimed Function**

The parties disagree as to whether the claimed function should be defined in relation to both the expiration and saturation of the odor-adsorptive filter or in relation only to the saturation of the filter. They further disagree as to whether the function should be defined in terms of indication of the filter's state or in terms of both detection and indication of the state.

Ms. McGowan asserts that the claimed function must include both the expiration and the saturation of the filter. She asserts that the claim language and several portions of the specification support her broader construction. Specifically, Ms. McGowan notes that the specification includes the following language:

"another object of the invention is to provide an improved odor adsorptive filter including a means for indicating the expiration of the odor adsorptive material therein." '143 Patent at col.4 l.38-40. The specification also states that the replacement indicator means provides "a clear indication of the expiration or saturation of the adsorptive powers of the compounds contained" in the filter. *Id.* at col.7 l.18-20. Further, Ms. McGowan asserts that "expiration" and "saturation" are "synonymous" and "interchangeabl[e]" terms. *Hrg. Tr.* 11/19/08 at 33:16-18.

Ms. McGowan also argues that the claimed function requires only indication of the filter's state, not active detection of the state. *See Hrg. Tr.* 11/19/08 at 31:10-33:2. She notes that the word "indicate" is used repeatedly in the claims at issue, but not the term "detect." "In fact, the word detect is never used in the patent." *Id.* at 31:22-23.

C & D argues that the disputed claims in the '143 Patent nowhere include the word "expiration." Rather, only the word "saturation" is used. *See Def. Memo* at 30-31. The Court concludes that C & D is correct in asserting that the ordinary and customary meanings of the words "expiration" and "saturation" are not identical. Rather, "expiration" suggests the passage of time, while "saturation" describes the condition and characterization resulting from chemical processes in the filter itself.

Further, C & D explains that the "parties' disagreement over the construction of this claim limitation is whether the claimed function of the indicator in the '143 Patent is actively detecting the properties of the adsorbent chemical and/or the ambient conditions." *Def. Memo.* at 27. Ms. McGowan proposes a construction that would encompass indicators that actively detect such chemicals and conditions, as well as those that simply indicate the passage of time. In contrast, C & D argues that the claimed indicator may not simply measure the passage of time, but, rather, "must actively measure the properties of the odor adsorbent chemical and/or the ambient conditions." *Id.* at 28.

C & D asserts that the specification disclaims Ms. McGowan's proposed construction. For example, the specification states that the indicator may be a colored tab "with the tab changing, losing, or gaining color as it is exposed to the odoriferous particulate and molecules within the refrigerator or freezer." '143 Patent at col.4 l.9-12. The specification also emphasizes that the indicator "may be treated with a dye or the like which is affected chemically by the saturation of the adsorbent compounds." *Id.* at col.7 l.27-29. The very next sentence of the specification explains that the indicator displays "changes of color with changes in chemical composition." *Id.* at col.7 l.31-32. Thus, C & D argues, "the specification teaches once again that the indicator is intended to be responsive to the amount of saturation that has taken place, and not merely a proxy for some predetermined length of time." *Def. Memo.* at 28.

Further, C & D argues, in distinguishing the '143 Patent from the Brizard prior art, the specification disclaims Ms. McGowan's proposed construction. Brizard disclosed a "deodorant system" consisting of a disposable container with an adsorbent chemical inside. *See '143 Patent* at col.3 l.13-19. Brizard also disclosed a simple means for indicating the purchase date and, thus, the replacement date. *Id.* at col.3 l.21-24. In order to overcome this prior art represented by the Brizard patent, the '143 Patent distinguished itself from Brizard by noting that while it also "provides a mean for indicating the need for replacement ... [it] does so by means of a tab or the like extending from the adsorbent, with the tab changing color according to the amount of adsorbent activity." *Id.* at col.3 l.27-31.

C & D presents additional prior art supporting its position. As early as 1996, SC Johnson sold a refrigerator deodorizer called the Glade Neutralizer Refrigerator ("Neutralizer") which was composed of a two-piece vented housing that contained an activated carbon deodorizing element. *See Def. Memo, Ex. J* (C & D025122; C & D025123; C & D025126). It also included a replacement indicator consisting of a plastic tube of blue gel contained in the housing. When a consumer purchased the Neutralizer, the consumer was instructed to remove a sticker covering the open end of the tube. The gel would evaporate over a predetermined amount of time, and the consumer was instructed to replace the Neutralizer when the gel was

gone. *See* Def. Memo., Ex. K (C & D024984-86). C & D argues that Ms. McGowan's proposed construction would encompass prior art devices such as the Neutralizer.

[12] The specification and portions of the '143 Patent distinguishing it from prior art support C & D's assertion that the claimed function must be defined so as to require the indication that the filter element is saturated, not simply expired due to the passage of time. Although the claims at issue do not include the word "detect," it is implicit that a structure indicating saturation in an object such as Ms. McGowan's odor absorptive filter would necessarily need to detect whether the filter was indeed saturated. Accordingly, the claimed function is "to indicate the need to replace the filter element upon detecting that the odor adsorbent chemical has been saturated with odoriferous matter or otherwise is no longer able to absorb odoriferous matter." FN5

FN5. "[T]he interpretation and construction of patent claims, which define the scope of the patentee's rights under the patent, is a matter of law exclusively for the court." *Markman*, 52 F.3d at 970-71. The Court has defined the claimed function using language different from either party's proposed claim construction. Such language best expresses the meaning of the disputed claims and defines the scope of Ms. McGowan's rights under the '143 Patent.

## **b. Corresponding Structures**

Ms. McGowan proposes the following corresponding structures as detailed in the '143 Patent and its specification:

The replacement indicator may be a device which changes color as the adsorptive properties of the filter element are saturated or depleted.

\* \* \* \*

The present air freshener device also provides a means for indicating the need for replacement of the adsorbent material, but does so by means of a tab or the like extending from the adsorbent, with the tab changing color according to the amount of adsorption activity.

\* \* \* \*

The indicator means may comprise a colored tab extending from the element, with the tab changing, losing, or gaining color as it is exposed to the odoriferous particulate and molecules within the refrigerator or freezer.

\* \* \* \*

It is important that the various filter elements forming a major part of the present invention, provide a clear indication of the expiration or saturation of the adsorptive powers of the compounds contained therein. Accordingly, FIG. 8 also shows a tab 48 extending visibly from the side opening 44 of the assembly 10i c. This tab 48 includes a chemically treated indicator area 50 thereon which is readily visible, with the treated area 50 changing color as the adsorbent material becomes saturated. The area 50 may be formed of the same or similar compounds as those used to impregnate the filter elements of the present invention, and may be treated with a dye or the like which is affected chemically by the saturation of the adsorbent compounds. Other means of indicating the saturation of the adsorbent compounds may be used as desired, but such changes of color with changed in the chemical composition or saturation are well known, as in litmus papers, carbon monoxide detectors, etc., with the present invention making use of such known technology in a new and unanticipated manner.

'143 Patent at Abstract; col.3 1.27-31; col.4 1.8-12; col.7 1.17-35.

C & D argues that the corresponding structure must be an indicator "which extends from the filter element." The specification states that the claimed device indicates the need for replacement "by means of a tab or the like extending from the adsorbent material." '143 Patent at col.3 1.29-30. C & D asserts that "this statement from the specification is not made in the context of discussing a preferred embodiment, but, rather, is a definition of the corresponding structure made in the broader context of how the claimed invention differs from the prior art." Def. Memo. at 26.

C & D asserts that Ms. McGowan's own arguments support the assertion that the indicator must extend from the filter element. Ms. McGowan contends that the specification's disclosure that the indicator is "a tab or the like extending from the adsorbent" supports the proposition that the indicator tab need not extend from the filter element. *See* Plaintiff's Memo. at 25 (citing '143 Patent at col.3 1.29-30). However, both the plain meaning of the words and the Abstract contradict Ms. McGowan's current reading. The Abstract states, that the "filter element" is the combination of the fibers and the adsorbent chemical. *See*, '143 Patent at Abstract ("The filter element comprises a woven or nonwoven fiber material, with the fibers being coated or impregnated with an odor adsorbent material such as baking soda and/or activated carbon in some form.") Thus, according to C & D, anything extending from the adsorbent chemical would necessarily extend from the filter element itself.

C & D further argues that Ms. McGowan's reliance on the language of Claims 6 and 9 is "similarly perplexing." Def. Memo. at 26. Ms. McGowan notes that these claims explicitly state that the indicator extends "visibly from said filter element and said filter housing." *See* '143 Patent at col.8 1.27-28; col.8 1.53-54. The plain meaning of these claims supports C & D's proposed construction because the indicator must extend from the filter element as described in the '143 Patent and also must extend past the housing so that it is visible to the user and, thus, useful. Such a physical configuration can be seen in Figure 8. Although Ms. McGowan attempts to use similar language from elsewhere in the Patent to support the idea that the indicator must extend only from the filter housing, not the filter itself, *see* '143 Patent at col.7 1.21-22 ("a tab 48 extend [s]visibly from the side opening 44 of the assembly 10c"), such argument is unconvincing. Accordingly, the corresponding structure is "an indicator which extends from the filter element."

## **2. Disputed Claim Term/Phrase 6-Means for Removably Replacing Said Filter Element within Said Filter Housing**

[13] The sixth disputed phrase reads: "means for removably replacing said filter element within said filter housing." The parties agree that the disputed phrase is a means-plus-function claim limitation. Defendant notes that "the differences between the two parties' proposed functions are trivial" and agrees to the Court's use of "either formulation of the claimed function." Def. Memo. at 32. Accordingly, the claimed function is "to enable the removal and replacement of a filter element from within the filter housing." However, the parties disagree with respect to the corresponding structure for the claimed function.

Ms. McGowan asserts that corresponding structures in the written description of the patent perform the agreed-upon function include the following:

The present filter essentially comprises a filter housing which is removably secured to a back or side wall of the refrigerator or freezer interior (suction cups, etc.) and a filter element removably installed therein.

\* \* \* \*

It is another object of the invention to provide an improved odor adsorptive filter incorporating a removably installable filter housing and a filter element which is removably installable within the housing.

\* \* \* \*

FIG.7 illustrates another embodiment of the present invention, designated as filter assembly 10b. In this embodiment 10b, the front panel 18b is removably secured to the housing 12b by means of a series of threaded fasteners 42 (screws, bolts, etc.).

\* \* \* \*

In FIG.8, the housing filter assembly 10c includes an open side 44, exposing the filter element 14a there through. In the case of the filter assembly 10c, it is not necessary to access screws or other threaded fasteners in order to remove and replace the filter element 14a. Rather, the filter element 14a may be removed simply by withdrawing it from the housing 12c through the side opening 44, **an acing with a fresh filter** element 14a through the same opening 44. (A slightly raised lip 47 may be provided about the periphery of the opening 44, in order to retain the filter element 14a within the housing 12a.)

'143 Patent at col.3 1.064-67; col.4 1.24-25; col.6 1.57-61; col.7 1.4-13.

C & D argues that the four corresponding structures proposed by Ms. McGowan do nothing to assist the Court in identifying the true corresponding structure for the claimed function ("to enable the removal and replacement of a filter element from within the filter housing"). Def. Memo. at 33. "[T]he first two portions of the specification upon which [Ms.] McGowan relied fail to disclose any way in which the filter element can be removed and replaced." Id. (citing '143 Patent at col.3 1.64-67; col.4 1.21-25). Accordingly to C & D, these two portions of the specification reiterate the physical configuration of the filter element as something that sits in the filter housing and is removable, but do not identify a "corresponding structure to the claim function of removing and replacing the spent filter element." Id. The second two portions of the specification on which Ms. McGowan relies simply disclose the construction of the filter housing such that the filter element can be removed. They do not disclose the manner in which the filter element is actually removed and replaced. Id. (citing '143 Patent at col.6 1.57-61; col.7 1.4-14). Accordingly, C & D argues that "none of the passages cite [d] by [Ms.] McGowan assists the Court in identifying the corresponding structure for the claimed function." Id.

C & D asserts that because Ms. McGowan's proposed corresponding structures are insufficient and unrelated to the claimed function, the Court should adopt C & D's proposed corresponding structure: "[t]he extended tab 48 also provides a convenient means for withdrawing a used filter element 14a from the housing 12c when required." '143 Patent at col.7 1.35-37. C & D argues that the '143 Patent specification discloses only this one means for removably replacing the filter element. Where the specification discloses only a single structure corresponding to the claimed function, the claim limitation in question is restricted to that structure. Cortland Line Co., 203 F.3d at 1357.

Because it is the only structure in the specification whose purpose is to facilitate the removal of the filter element, the corresponding structure is the tab described in '143 Patent at col.7 1.35-37.

### III. Conclusion

An Order confirming the foregoing follows.

### **ORDER**

AND NOW, this 12th day of December 2008, upon consideration of Plaintiff's Memorandum in Support of Plaintiff's Proposed Claim Construction (Doc. No. 44), Defendant's Memorandum in Support of Proposed Claim Constructions (Doc. No. 49), and Defendant's Supplemental Declaration (Doc. No. 51), and following

a hearing on this matter on November 19, 2008, IT IS HEREBY ORDERED that the Court construes the disputed claim terms in U.S. Patent 6,346,143 ("the '143 Patent") as follows:

(1) Disputed Claim Term 1 ("filter housing") means: a container for a filter element;

(2) (a) Disputed Claim Term 2(a) ("front panel") means: a front piece forming a part of the surface of a filter housing used to hold a filter element;

(2) (b) Disputed Claim Term 2(b) ("rear panel") means: a rear piece forming a part of the surface of a filter housing used to hold a filter element;

(3) Disputed Claim Term 3 ("removably disposed") means: placed so that it is removable in the normal and intended use of the device;

(4) Disputed Claim Term 4 ("porous structural matrix holding at least one odor adsorbent chemical therein") means: a porous structure which contains interstitial spaces in which the adsorbent material is present;

(5) The Claimed Function of Disputed Claim Phrase 5 ("means for indicating the need for replacement of said filter element when said odor adsorbent chemical has been saturated with odoriferous matter") means: to indicate the need to replace the filter element upon detecting that the odor adsorbent chemical has been saturated with odoriferous matter or otherwise is no longer able to absorb odoriferous matter, and the corresponding structure is: an indicator which extends from the filter element;

(6) The Claimed Function of Disputed Claim Phrase 6 ("means for removably replacing said filter element within said filter housing") means: to enable the removal and replacement of a filter element from within the filter housing, and the corresponding structure is: the tab described in the '143 Patent at col.7 l.35-37.

E.D.Pa.,2008.

McGowan v. Church & Dwight Co., Inc.

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