

United States District Court,
D. Maryland.

CONTECH STORMWATER SOLUTIONS, INC,

v.

BAYSAVER TECHNOLOGIES, INC., and.

No. Civ.A. CCB-07-358

Sept. 25, 2007.

C. Dennis Southard, IV, Thompson Hine LLP, Washington, DC, Jeffrey Cooper Metzcar, Thompson Hine LLP, Dayton, OH, Stephen Joseph Butler, Thompson Hine LLP, Cincinnati, OH, for Contech Stormwater Solutions, Inc.

Joseph J. Zito, Zito TLP, Washington, DC, for Baysaver Technologies, Inc., and Accubid Excavation, Inc.

MEMORANDUM

BLAKE, J.

Now pending before the court is a motion for summary judgment filed by defendants BaySaver Technologies, Inc. ("BaySaver") and AccuBid Excavation, Inc. ("AccuBid") against plaintiff Contech Stormwater Solutions, Inc. ("Contech"). Contech claims that by marketing, manufacturing, and selling storm water filter units under the trademark "BayFilter," BaySaver and AccuBid literally infringed Contech's United States Patent Nos. 5,707,527 (the " '527 patent"), entitled "Apparatus and Method for Treating Stormwater," and 6,027,639 (the " '639 patent"), entitled "Self-Cleaning Siphon-Actuated Radial Flow Filter Basket." In response, BaySaver and AccuBid filed this motion for summary judgment of non-infringement on all claims asserted by Contech. The issues in this case have been fully briefed. For the reasons stated below, the defendants' motion will be granted.

BACKGROUND

This case involves the possible infringement of patents that grant Contech rights to a specific storm water filtration method and apparatus. Storm water filters are used to treat storm water runoff by reducing pollutants and contaminants, including heavy metals, oils and greases, and organic toxins. These filtration systems limit environmental harm by preventing pollutants from seeping into natural bodies of water.

As levels of urbanization have increased, so to have efforts to invent new and more efficient methods of storm water filtration. One basic method of water filtration commonly found in the prior art utilizes an overflow system, whereby water flows into a container, gradually rises through a filtration medium, and finally overflows the top of the container when it reaches capacity. (Def.'s Mem. at 7 .) Other filtration mechanisms have sought to improve the durability and infiltration capacity of the filtration beds, which over

time become clogged with pollutants and runoff debris. As the filtration bed becomes compacted, its infiltration capacity decreases, which reduces the water flow rate and thus the filter's effectiveness. (*See* U.S. Patent No. 5,707,527.) Because the water flow rate and permeability of a storm water filter is of paramount importance to the filter's effectiveness, new filtration designs seek to sustain high levels of long-term infiltration capacity, while simultaneously providing cost minimizing maintenance and replacement options.

The '527 patent at issue in this case was granted to Contech's predecessor in 1998, and teaches a filtration method that removes pollutants from storm water runoff by inducing the water to flow through the walls of a replaceable water-permeable basket, then through a bed of filter material, and ultimately into an interior drainage space that is in continuous fluid communication with a treated water outlet conduit. Contech additionally notes that the '527 patent utilizes an air release valve at the top of the filter basket to create a "siphon effect," which helps to suction the storm water runoff through the water-permeable basket walls and filter bed. (Pl.'s Opp. Mem. at 1.) The '639 patent asserted by Contech teaches of a specific filtration apparatus that largely employs the '527 patent method of filtration, but additionally utilizes a self-cleaning feature "that uses air bubbles in conjunction with hydrodynamic backwash to dislodge particulate material from a filter medium at the conclusion of a filtering operation." (Pl.'s Opp. Mem. at 1.) This self-cleaning mechanism requires an external housing for the filter basket with openings that allow air to flow into the apparatus at the lower end of the housing once storm water levels have dropped below that point. The admission of air through the air intake openings causes air bubbles to rise upward between the filter housing and the filter medium, thereby dislodging particulate matter from the filter medium and effectuating a self-cleaning that promotes long-term infiltration capacity.

Contech claims that the defendants' marketing, manufacturing, and selling of the BayFilter storm water filtration device literally infringes its rights protected by the '527 and '639 patents. The BayFilter is predicated upon an overflow system taught by the prior art. Storm water flows in through the base of the BayFilter container and, as it travels upwards to fill the structure, it simultaneously flows horizontally through "spirally wound" layers of filter material. (Def.'s Mem. at Ball Aff. at para. 11.) When the BayFilter has reached its capacity, the treated storm water overflows into an outlet chamber located at the top of the filter, and then drains through an outlet drain pipe located in the center of the apparatus. As the BayFilter marketing materials demonstrate, an air release valve situated on the top of the filter's roofing helps to create a siphon that ensures the upward flow of treated water into the outlet chamber even after the water levels outside the filter begin to subside. (Def.'s Mem. at Ex. J, BaySaver Tech. Man. at 32.) This siphon filtration mechanism, however, only initiates once the water levels in the BayFilter have reached a critical overflow point. Once the storm water levels outside the container drop below the base of the BayFilter, the water siphon breaks, thereby precipitating a rise of air bubbles through the filter material and a gravity-driven backwash that helps to dislodge particles that could inhibit the filter's infiltration capacity. (Def.'s Mem. at Ex. J, BaySaver Tech. Man. at 33.)

In February 2007, Contech filed a complaint against BaySaver and AccuBid, claiming that the BayFilter infringes Contech's '527 and '639 patents. More specifically, Contech alleges that the BayFilter literally infringes upon independent claim 1 of the '527 filter by utilizing "siphon filtration" and independent claim 6 of the '639 patent by employing "self-cleaning features." (Pl.'s Opp. Mem. at 1.) In response, BaySaver and AccuBid filed a motion for summary judgment of non-infringement asserting that the BayFilter is predicated upon an overflow filtration system not within the scope of the '527 and '639 patents. This opinion focuses on claim construction and infringement issues related to the patents.

ANALYSIS

Rule 56(c) of the Federal Rules of Civil Procedure provides that summary judgment: shall be rendered forthwith if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.

The Supreme Court has clarified this does not mean that any factual dispute will defeat the motion: By its very terms, this standard provides that the mere existence of *some* alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no *genuine* issue of *material* fact.

Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-48, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986) (emphasis in original).

"The party opposing a properly supported motion for summary judgment 'may not rest upon the mere allegations or denials of [his] pleadings,' but rather must 'set forth specific facts showing that there is a genuine issue for trial.' " Bouchat v. Baltimore Ravens Football Club, Inc., 346 F.3d 514, 525 (4th Cir.2003) (alteration in original) (quoting Fed.R.Civ.P. 56(e)); *see also* SunTiger, Inc. v. Scientific Research Funding Group, 189 F.3d 1327, 1334 (Fed.Cir.1999). The court must "view the evidence in the light most favorable to ... the nonmovant, and draw all reasonable inferences in her favor without weighing the evidence or assessing the witnesses' credibility," Dennis v. Columbia Colleton Med. Ctr. , Inc., 290 F.3d 639, 644-45 (4th Cir.2002), but the court also must abide by the "affirmative obligation of the trial judge to prevent factually unsupported claims and defenses from proceeding to trial." Bouchat, 346 F.3d at 526 (internal quotation marks omitted) (quoting Drewitt v. Pratt, 999 F.2d 774, 778-79 (4th Cir.1993), and citing Celotex Corp. v. Catrett, 477 U.S. 317, 323-24, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986)).

Determining whether a patent is infringed is a two-step process, requiring the court to (1) "determine the scope and meaning of the patent claims asserted," and (2) compare the construed claim to the allegedly infringing product. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1454 (Fed.Cir.1998) (en banc). In order to find literal infringement, "every limitation set forth in a claim must be found in an accused product, exactly." Southwall Techs. Inc. v. Cardinal IG Co., 54 F.3d 1570, 1575 (Fed.Cir.1995) (citing Becton Dickinson & Co. v. C.R. Bard, Inc., 922 F.2d 792, 796 (Fed.Cir.1990)). FN1 "Although an infringement analysis usually involves both issues of law and questions of fact, summary judgment of noninfringement may still be proper ... [because] a good faith dispute about the meaning and scope of asserted claims does not, in and of itself, create a genuine dispute to preclude summary judgment in patent cases." Phonometrics, Inc. v. Northern Telecom Inc., 133 F.3d 1459, 1463 (Fed.Cir.1998). Instead, "[d]isputes concerning the meaning of claims ... is part of the process of claim interpretation, a question of law." *Id.* at 1464.

FN1. In some circumstances, "[a]n accused product that does not literally infringe a claim may infringe under the doctrine of equivalents if 'it performs substantially the same function in substantially the same way to obtain the same result.' " Southwall Techs. Inc. v. Cardinal IG Co., 54 F.3d 1570, 1579 (Fed.Cir.1995) (quoting Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 608, 70 S.Ct. 854, 94 L.Ed. 1097 (1950)). "The doctrine of equivalents, however, is not a tool for expanding the protection of a patent...." *Id.* (citing Hormone Research Found., Inc. v. Genentech, Inc., 904 F.2d 1558, 1564 (Fed.Cir.1990)). Here, because Contech does not assert a doctrine of equivalents argument, but rather alleges only a literal infringement of the '527 and '639 patents, (Pl.'s Opp. Mem. at 1, 7, 20, 40,) it is not necessary for the court to address the merits of an infringement analysis under the doctrine.

Claim Construction

Matters of claim construction are questions of law, not fact. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996); *Cybor Corp.*, 138 F.3d at 1455-56. The court must resolve them by reference, first and foremost, to the intrinsic evidence, which includes the claims, the specifications, and the patent's prosecution history. *Frank's Casing Crew & Rental Tools, Inc. v. PMR Techs., Ltd.*, 292 F.3d 1363, 1374 (Fed.Cir.2002). "It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005) (en banc). Limitations found in the specification or preferred embodiment of an invention should not be read into the claims. *Id.* at 1323.

The claims, however, "do not stand alone." *Id.* at 1315. Instead, "they are part of a 'fully integrated written instrument' consisting principally of a specification that concludes with the claims ... [which] 'must be read in view of the specification.'" *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978 (Fed.Cir.1995) (en banc)). Because the "specification aids in ascertaining the scope and meaning of the claims inasmuch as the words of the claims must be based on the description ... [t]he specification is, thus, the primary basis for construing the claims." *Id.* (quoting *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed.Cir.1985)). To quote the "well-established axiom in patent law," "a patentee is free to be his or her own lexicographer," assigning whatever meaning he or she likes to the terms in the claims. *Hormone Research Found., Inc. v. Genentech, Inc.*, 904 F.2d 1558, 1563 (Fed.Cir.1990); *see also E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed.Cir.2003). Although the specification may expressly define claim terms in a manner contrary to their ordinary meaning, such terms may also be defined in the specification by implication. *See Phillips*, 415 F.3d at 1321. It is improper for a court to begin with a "broad dictionary definition" of a claim term since this approach may cause the "construction of the claim to be unduly expansive" as it fails "to fully appreciate how the specification implicitly limits that definition." *Id.* Instead, the court should focus "at the outset on how the patentee used the claim term in the claims, specification, and prosecution history, rather than starting with a broad definition and whittling it down." *Id.*

Absent, however, an indication that the patent employs terms in an idiosyncratic fashion, "words in a claim will be given their ordinary and accustomed meaning." *Frank's Casing*, 292 F.3d at 1374. When a technical term is used in a patent document, "it is interpreted as having the meaning that it would be given by persons" of ordinary skill in the art. *Hoechst Celanese Corp. V. BP Chems., Inc.*, 78 F.3d 1575, 1578 (Fed.Cir.1996). If ambiguity remains after consideration of the "intrinsic evidence," the court may consider "extrinsic evidence" regarding the "meaning or scope of technical terms in the claims." *Id.* The court is not limited to evidence presented by the parties, but may consult general reference sources on its own "to better understand the underlying technology." *See Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1584 n. 6 (Fed.Cir.1996).

Claim Construction of the '527 Patent

The elements of independent claim 1 of the '527 patent, which teaches of a method for treating storm water runoff, include (emphasis added):

- (a) allowing the runoff water to infiltrate through a *water-permeable outer surrounding wall* of a *basket* containing a bed comprising material able to remove pollutants from the storm water;
- (b) treating the runoff water by removing pollutants from the storm water by passing the storm water

through the bed contained within the basket to an interior drainage space;

(c) *establishing continuous fluid communication* between the interior drainage space of the basket and a treated water outlet conduit;

(d) *siphoning* treated water from the drainage space under gravity into the treated water outlet conduit; and

(e) controlling a flow rate of the storm water through the basket to a lower rate than an initial infiltration capacity of the bed, the controlled lower rate allowing sufficient contact between the storm water runoff and the bed to remove a substantial proportion of at least one pollutant from the storm water runoff.

Looking first and foremost to the intrinsic evidence, a court must construe the claim terms by considering the claim language itself in the context provided by the specification and prosecution history. *See* Phillips, 415 F.3d at 1315. Because a literal patent infringement requires that, "every limitation set forth in a claim must be found in an accused product, exactly," it is only necessary to construe the most relevant claim terms that define the invention in this case. *See* Southwall Techs., Inc., 54 F.3d at 1575.

The first clause found in limitation '(a)' of claim 1 teaches of water flowing through a "water-permeable outer surrounding wall of a basket." Contech suggests that the term "basket" may be defined simply as a "container for housing a bed of material," and that it can consist of "any particular size or shape." (Pl.'s Opp. Mem. at 8-9.) Contech further asserts that the "water-permeable outer surrounding wall" of the basket only requires that the outer wall include "at least one opening to permit storm water to infiltrate the basket," and that the term "wall" potentially includes both horizontal or vertical walls. (*Id.* at 9.) Under this construction, Contech suggests that a cylindrical basket can be described as having "a circular top wall, a circular bottom wall and a vertical side wall." (*Id.*) BaySaver and Accubid, however, argue that Contech's definition is overbroad. Instead, the movants suggest that the method encompassed by the limitation defines a "basket" to have water-permeable, *vertical*, mesh walls that permit the storm water runoff to infiltrate "the product through the side walls and travel[] sideways and downwards through the filter and out the drain at the bottom." (Def.'s Mem. at 13.)

Because there is no indication that the '527 patent defines the "water-permeable outer surrounding wall of a basket" clause in an idiosyncratic fashion, the words in the claim should be given their "ordinary and accustomed meaning." *Frank's Casing*, 292 F.3d at 1374. According to the claim language, the defined "wall" of the basket should be both "water-permeable" and "surrounding." Although the court agrees with Contech that the basket and its "surrounding wall" need not necessarily take a cylindrical form, the ordinary meaning of "surrounding" and "wall" would envision a *vertical* structure that encloses the basket. Cambridge Dictionaries Online defines a "wall" to be a "*vertical* structure ... that divides or encloses something." *Cambridge Dictionaries Online*, <http://dictionary.cambridge.org> (last visited August 31, 2007) (emphasis added). The foundation and cover of a basket would not ordinarily be defined by the term "wall," but rather by language that may include terms such as "base," and "ceiling" or "top," respectively. Furthermore, the ordinary meaning of a "water-permeable" wall would describe a structure that is porous, and therefore capable of permitting storm water infiltration. Merriam-Webster's Online Dictionary defines "permeable" as "having pores or openings that permit liquids or gasses to pass through." Merriam-Webster's Online Dictionary, <http://mw.com> (last visited August 31, 2007). Therefore, as construed by the court, the '527 patent filtration basket must be enclosed by vertical, porous walls that allow storm water to infiltrate the filter material following a horizontal flow. This construction of the clause is supported by the context provided by the intrinsic evidence, and prevents the claim from being interpreted in an unreasonably broad

manner.

Recognizing that the specification and preferred embodiments of a patent should not be read to limit the claim language, Phillips, 415 F.3d at 1323, the court finds that the intrinsic evidence here confirms the court's ordinary understanding of the claim. The specification describes a filtration method that requires water to flow initially through an outer water-permeable wall, then through a bed of filter material, and finally through an "inner water-permeable wall spaced from, and surrounded by, the outer wall." ('527 patent, col. 3, ln. 5-8.) The specification further describes the "typically cylindrical" basket to have an outer wall, possibly "fabricated from steel wire mesh," and a "base (circular in the case of a cylindrical basket) of water-*impermeable* material, such as plastic or metal, that extends *horizontally* engaging the lower end of the outer surrounding wall thereby sealing the underside of the basket." (*Id.* at col. 6, ln. 6-11, 33-37 (emphasis added.)) The language in the specification thus confirms, but does not limit, an ordinary understanding of the claim language. The term "wall" is used to describe *vertical* walls, while the term "base" is specifically employed to describe the *horizontal* foundation of the basket. The vertical permeable wall is made of a porous material, steel wire mesh in this embodiment, while the impermeable base is non-porous, in this example plastic or metal. As element '(b)' of independent claim 1 demonstrates, the storm water runoff is filtered by passing horizontally through a filter material located between the outer and inner permeable walls, where it then enters the interior drainage space of the filter basket.

This construction of the first clause found in element '(a)' of claim 1 does not limit the claim to any specific preferred embodiment of the invention or specific description found in the specification. For example, the patented "basket" may take a variety of shapes, including cubic or cylindrical, and the outer water-permeable wall need not be made of "steel wire mesh." Instead, this claim construction construes the claim language according to its ordinary meaning, which is supported by the inventor's choice of language in the specification. The inventor recognized the language distinction between a surrounding "wall," which would be vertical, and a "base," which would be horizontal. (*See* '527 patent, col. 6, ln. 5-11, 33-37.) Furthermore, the inclusion of a "cylindrical external housing comprising means for admitting air into the [lower end] of the housing" in the '639 patent demonstrates the distinction between a wall being "water-permeable," or porous, as compared to being impermeable, except for containing a simple opening to allow water or air intake. (Patent '639, col. 8, ln. 65-67.) The water-permeable filtration "basket" taught by the '527 patent is housed within the impermeable "external housing" container taught by claim 6 of the '639 patent. (*Id.* at col. 5, ln. 25-27.) Thus, as the '639 patent language makes clear, a proper construction of the term "basket" in the '527 patent should not analogize the filter basket to any housing "container" with an opening that allows for water intake. *See* Aquatex Indus., Inc. v. Techniche Solutions, 419 F.3d 1374, 1382 (Fed.Cir.2005) (using patents incorporated by reference to aid in claim construction). Rather, as the inventor demonstrates, the patented filtration "basket" must have porous and vertical outer walls that allow storm water to filter radially through the filtration bed, and into the interior drainage space.

The second relevant clause in claim 1 of the '527 patent is found within limitation part '(c),' and provides for "*establishing continuous fluid communication* between the interior drainage space of the basket and a treated water outlet conduit." Contech argues that "establishing continuous fluid communication" between the drainage space and the outlet conduit commences only at the moment when "siphoning begins." (Pl.'s Opp. Mem. at 15.) According to Contech, "the moment of establishing continuous fluid communication, as explained in the specification of the '527 patent, corresponds to the moment at which siphoning begins when the interior drainage space fills with water to purge air." (*Id.* at 17.) BaySaver and AccuBid, however, argue that if the construction now offered by Contech is adopted, then a continuous fluid communication necessarily requires some kind of siphon priming valve, as demonstrated in the '527 patent specification. (

See Def.'s Mem. at 17-19; see also '527 patent, col. 3, ln. 40-46.) Additionally, BaySaver and AccuBid appear to argue in the alternative a definition of continuous fluid communication that was offered by the plaintiff Stormwater Management, Inc. ("Stormwater"), Contech's predecessor, in the previous matter of *Stormwater Management, Inc. v. CDS Techs., Inc.* (Case No. CV 04-414) (the "Oregon litigation"). In that case, Judge Michael W. Mosman of the District of Oregon agreed with Stormwater and defined "establishing continuous fluid communication" as "to bring into existence or cause a stream of fluid without any interruptions breaking the stream into unconnected segments." *Id.*

Again, because there is no indication that the '527 patent defines the "establishing continuous fluid communication" clause in an idiosyncratic fashion, the words in the claim should be given their "ordinary and accustomed meaning." *Frank's Casing*, 292 F.3d at 1374. The construction offered by Judge Mosman provides the ordinary meaning of the clause, and is consistent with Stormwater's prior claim construction argument in the Oregon litigation. As Stormwater argued in that case, "establishing continuous fluid communication means establishing a stream of fluid from the interior drainage space to the treated water outlet conduit that is not completely interrupted by one or more gaps that break the stream into unconnected segments." (Def.'s Mem. at Ex. J, Stormwater Mem. at 16.) Finding no reason to stray from the ordinary meaning of the clause, "establishing continuous fluid communication" will be construed as meaning to bring into existence or cause a stream of fluid without any interruptions breaking the stream into unconnected segments.

The final relevant clause in this claim construction is found in limitation part '(d),' which provides for "siphoning treated water from the drainage space under gravity into the treated water outlet conduit." Contech argues that the specification of the '527 patent describes that "when a siphon effect is induced, in accordance with the invention, by purging air from the drainage space, a negative pressure develops inside the drainage space. This results in suctioning of water through the bed into the drainage space, and thence into the drainage conduit." (Pl.'s Opp. Mem. at 17-18 (quoting the '527 patent, col. 7, ln. 64-col. 8, ln. 2.)) Contech further asserts that the definition of "siphoning" in the '527 patent does *not* exclude water that travels over an intermediate elevation as a result of the siphon effect. (*Id.* at 19.) BaySaver and AccuBid, however, assert that the '527 patent does not define "siphoning" according to its meaning as understood by a person of ordinary skill in the art since, according to the patent, the treated storm water is not induced to flow upwards over an intermediate elevation before it drains. (Def.'s Reply Mem. at 4.) "Instead of a conventional siphon," the defendants argue, "the patent requires a valve" that fully opens once the basket has filled with water, thereby displacing air and creating a suctioning flow of water through the outlet conduit. (*Id.* at 6.)

As Judge Mosman noted in the Oregon litigation when attempting to define "siphoning," "technical sources ... appear to show that a person of ordinary skill in the art of hydraulics would understand the ordinary meaning of 'siphoning' to contemplate, among other limitations, a conduit that rises above the hydraulic grade line." *Stormwater Management, Inc. v. CDS Techs., Inc.* (Case No. CV 04-414) (citing HYDRAULICS FOR PUBLIC HEALTH ENGINEERS 279 (1967)). Stated differently, "siphoning" is technically defined as inducing water to flow upwards over an intermediate elevation before it ultimately drains. Because Judge Mosman properly found that "artisans attach special meaning to the term 'siphoning,'" the court relied on technical, rather than general usage dictionaries. *Id.*; see also *Vanderlande Indus. Nederland BV v. ITC*, 366 F.3d 1311, 1321 (Fed.Cir.2004) (finding that a general-usage dictionary can be useful to aid a claim construction when an artisan would understand a claim term to have the same meaning in the art as that term has in common, but that technical dictionaries should be used when an artisan "would attach a special meaning to a claim term"). Judge Mosman recognized, however, that a technical definition

of "siphoning" that requires a conduit that rises above an intermediate elevation would "exclude the ['527] patent's sole disclosed embodiment." *Id.* As the Federal Circuit stated in *Vitronics Corp.*, 90 F.3d at 1583, it "is rarely, if ever, correct" to define a claim term in a manner that would exclude the preferred embodiment described in the specification.

Because the '527 patent specification and preferred embodiment do not teach of an induced hydraulic flow over an intermediate elevation, and would thus be excluded by such a definition, it would be improper to adopt this construction of the term "siphoning." Instead, the court recognizes that "a patentee is free to be his or her own lexicographer," assigning whatever meaning he or she likes to the terms in the claims. *Hormone Research Found., Inc.*, 904 F.2d at 1563. The intrinsic evidence in this case, which includes the claim language and the specification, makes it clear that the patentee is defining "siphoning" to describe a process by which water is emptied from a drainage space by traveling through a tube or pipe running from the liquid in the drainage space to a *lower* level outside the vessel so that atmospheric pressure forces the liquid through the tube. This adopted language is wholly consistent with the definition offered by Contech's predecessor in the Oregon litigation. (*See* Def.'s Mem. at Ex. L, Stormwater Mem. at 10.) Furthermore, this definition is confirmed by the claim language, which describes the "siphoning process" as draining water into the water outlet conduit under the force of "gravity."

Whether this "siphoning effect" requires a siphon valve that allows the drainage space to fill with water before opening does not need to be determined by the court in construing this claim for the purposes of this litigation. The essential finding here is that the '527 patent does not define "siphoning" to include the ordinary meaning of the term as understood by a person of skill in the art. Quite simply, the '527 patent does not teach a true siphon. To define "siphoning" in the '527 patent to include the hydraulic process by which water is induced to flow *against* gravity and over an intermediate elevation would grant the '527 patent an overbroad scope that exceeds the clear intent of the patent's claim language and specification. It is of note, however, that the intrinsic evidence does appear to indicate that a valve may be required to create the "siphoning effect" stated in the patent since no other possible method for inducing the effect is offered. First, the specification consistently describes the siphoning effect only in the context of some kind of siphon valve. For example, the specification states that:

[I]n certain preferred embodiments, the apparatus includes an outlet siphon priming valve that allows a siphoning effect to occur ... the outlet valve is optionally a water level actuated siphon priming valve that is able to at least partially cover the opening of the outlet and thereby restrict flow of treated storm water through the duct ... When the storm water runoff rate is above a threshold level, so that the basket becomes completely submerged and the inner drainage space fills with treated water, then the outlet siphon priming valve opens completely and a continuous fluid communication is established between the inner drainage space and the outlet conduit [under this siphon effect].

('527 patent, col. 3, ln. 28-49.) Second, the prosecution history reveals that claim 1 of the '527 patent was initially rejected by the USPTO until limitations '(c)' and '(d)', concerning continuous fluid communication and siphoning, respectively, were added. As originally written, these limitations were found in claim 8, which described the occurrence of a siphoning effect and continuous fluid communication only in the context of a valve. (Def.'s Mem. at Ex. B.) Therefore, the intrinsic evidence strongly indicates that any "siphoning effect," as the term is used in the patent, would require a siphon priming valve.

Infringement of the '527 Patent

Having construed independent claim 1 of the '527 patent, the court must now determine whether the BayFilter product infringes that claim. In order to literally infringe the patent, the BayFilter must include every element found in the claim language. Southwall Techs., Inc., 54 F.3d at 1575. Summary judgment is appropriate when there is no material factual dispute. Fed.R.Civ.P. 56. Because the BayFilter does not include elements required by the '527 patent, BaySaver and AccuBid are entitled to summary judgment.

First, in order to infringe limitation part '(a)' of claim 1, a storm water filtration method must allow the storm water runoff to infiltrate through a water-permeable outer surrounding wall of a filtration basket. As construed by the court, this filtration basket must be enclosed by vertical, porous walls that allow storm water to infiltrate the filter bed following a horizontal flow. Here, the BayFilter is enclosed by water-*impermeable* vertical container walls, and instead provides for storm water intake through openings found in the container's base, or foundation. Instead of allowing storm water to flow horizontally through the filter device, the BayFilter forces the storm water to rise vertically from the base of the apparatus. (Def.'s Mem. at 12-15.) As a matter of law, because the BayFilter does not have water-permeable outer walls, and because the water inflow pattern is vertical rather than horizontal, the BayFilter cannot infringe limitation part '(a)' of independent claim 1.

Second, in order to infringe limitation part '(c)' of claim 1, the storm water filtration mechanism must establish continuous fluid communication between the interior drainage space of the basket and a treated water outlet conduit. As construed by the court, establishing continuous fluid communication would require the bringing into existence or causing a stream of fluid without any interruptions breaking the stream into unconnected segments. Here, the BayFilter, unlike the '527 filtration method, does not establish a continuous and uninterrupted stream of fluid between the interior drainage space of the basket and the outlet conduit since the filter operates through an overflow system. (Def.'s Mem. at 21.) The BayFilter overflow system is commonly taught by the prior art, and does not permit fluid communication between the outlet chamber and the outlet conduit when the filter is only partially full of storm water. If the '527 patent were construed to mean that a "continuous fluid communication" was established any time treated storm water drained out of a filter and through an outlet conduit, then every conceivable water filter would necessarily infringe this claim element. Instead, the '527 patent teaches of a filtration method that allows for continuous fluid communication between the drainage space and the outlet conduit, even when the filter is only partially full of storm water. (See Def.'s Mem. at 21; Def's Mem. at Ex. L, Stormwater Mem. at 14-15.) As opposed to the BayFilter, the '527 patent allows water to flow horizontally through the permeable basket walls at all water levels, thereby filling the drainage space and establishing a continuous stream with the outlet conduit located at the base of the drainage space. Therefore, because the BayFilter's overflow filtration system cannot establish continuous fluid communication between its outlet chamber and outlet conduit, the BayFilter cannot infringe limitation part '(c)' of independent claim 1.

The same result would be reached even if the court had adopted Contech's preferred construction of limitation part '(c)' of claim 1. Contech argued that "the moment of establishing continuous fluid communication, as explained in the specification of the '527 patent, corresponds to the moment at which siphoning begins when the interior drainage space fills with water to purge air." (Pl.'s Opp. Mem. at 17.) If this construction is adopted, however, the '527 patent specification appears to require the use of a siphon priming valve to achieve the desired "siphon effect." As Contech concedes in its brief, the '527 patent only "refers to continuous fluid communication" in the context of a siphon valve. (Id. at 15.) The specification states, "when the storm water runoff rate is above a threshold level, so that the basket becomes completely submerged and the inner drainage space fills with treated water, then the outlet siphon priming valve opens completely and a *continuous fluid communication is established between the inner drainage space and the*

drainage conduit." (Id. at 15 (emphasis original.)) Contech is unable to demonstrate how the desired siphon effect and continuous fluid communication can occur without a siphon valve. (Def.'s Mem. at Ball Aff. at para. 18.) Because the BayFilter does not have a siphon valve, it could not infringe limitation part '(c)' of independent claim 1, even as construed by Contech.

Finally, in order to infringe limitation part '(d)' of claim 1, the storm water filtration mechanism must "siphon" treated water from the drainage space under gravity into the treated water outlet conduit. The term "siphoning," as used by the '527 patent, describes a process by which water is emptied from a drainage space by traveling through a tube or pipe running from the liquid in the drainage space to a *lower* level outside the vessel under the force of gravity. This construction of "siphoning" differs from the ordinary meaning of the term as understood by one skilled in the art since it *excludes* the flow of water over an intermediate elevation. As previously noted, "a patentee is free to be his or her own lexicographer," assigning whatever meaning he or she likes to the terms in the claims. *Hormone Research Found.*, 904 F.2d at 1563.

Unlike the '527 patent filtration method, the BayFilter does create a true siphon effect as the term is ordinarily understood by those skilled in the art. According to the BayFilter Technical and Design Manual, siphon filtration commences once the water levels outside the filter container drop below the internally overflowing filter. (Def. Mem. at Ex. J, BayFilter Tech. Man. at 32.) At this point, the external water is being drawn up over an intermediate elevation and into the outlet chamber before flowing out of the drainage pipe. (Id.) The '527 patent, on the other hand, teaches of a water flow system, whereby a rise in the water level within the filter basket displaces air, and thus causes a negative pressure to form within the drainage space. This negative pressure results in the suctioning of water through the filter walls and out through the outlet conduit. (Pl.'s Opp. Mem. at 18.) It is still not clear, however, how this "siphoning effect" can occur without the use of a siphon valve in the outlet conduit. Nevertheless, the true siphon that is formed within the BayFilter is substantially different from the "siphoning effect" occurring within the method taught by the '527 patent. Because water is being siphoned above an intermediate hydraulic level in the BayFilter, it cannot infringe limitation part '(d)' of independent claim 1 of the '527 patent.

Because the BayFilter does not infringe at least one of the elements taught by the '527 patent, it does not literally infringe the patent as a matter of law. Therefore, summary judgment is appropriate for the defendants on Contech's claims of infringement of the '527 patent.

Claim Construction of the '639 Patent

The elements of the allegedly infringed independent claim 6 of the '639 patent, which teaches of a self-cleaning basket filter apparatus for removing pollutants from storm water runoff, include:

- (a) a cylindrical external housing comprising means for admitting air into the housing proximate a lower end of the housing;
- (b) a *cylindrical filter medium* for removing particulates from storm water;
- (c) an annular bed of material able to remove contaminants from the storm water, the bed surrounded by the cylindrical filter;
- (d) a drainage space in the annular space of the bed and in fluid communication with the bed;

(e) an air outlet duct in fluid communication with the drainage space, the duct comprising a valve, the valve opening to eliminate air from the housing in response to a rising level of storm water in the drainage space; and

(f) a conduit with a one-way valve for flowing air therethrough, the conduit extending through the housing proximate an upper portion of the housing and in fluid communication with the drainage space of the basket;

whereby, when a water level surrounding the basket drops to the lower end of the housing, surrounding air enters the housing through the means for admitting air and the air bubbles upward to dislodge particulate material *from the filter medium*.

Again, because a literal infringement allegation requires that, "every limitation set forth in a claim must be found in an accused product, exactly," it is only necessary to construe the most relevant claim terms that define the invention in this case. *See Southwall Techs., Inc.*, 54 F.3d at 1575. Unlike the '527 patent, the claim language in the '639 patent provides for a clearer understanding of the scope of the claim by including a final paragraph in claim 6 that describes the self-cleaning feature taught by the patent. In addition, the specification notes that "[c]ertain aspects of the apparatus, but not the self-cleaning feature, are described in our U.S. Pat. No. 5,707,527 issued Jan. 15, 1998, which is fully incorporated herein by reference." ('639 patent, col. 5, ln. 23-26.) Thus, the self-cleaning mechanism taught by claim 6 explains how the storm water filter taught by the '527 patent can include additional components to bring about the desired self-cleaning feature.

The clause found in limitation '(b)' of claim 6 describes "a cylindrical filter medium for removing particulates from storm water ." This filter medium, however, is distinguished from the "annular bed of material able to remove contaminants from the storm water," which is taught by limitation '(c).' The '639 patent explains that the annular bed of material is "surrounded by the cylindrical filter" taught by limitation '(b).' Contech appears to agree that the claim language is clear, and that the "claimed 'filter medium' that surrounds the bed removes particulates from storm water runoff, and in certain preferred embodiments may be cloth or paper." (Pl.'s Opp. Mem. at 28.) As the final paragraph of claim 6 illustrates, it is this outer filter medium that is cleaned by the self-cleaning mechanism taught by the patent. BaySaver and AccuBid do not appear to dispute Contech's construction of the filter medium term. Instead, the movants assert that the BayFilter simply does not have a filter medium, as the term is defined by the patent.

Because the claim language is clear, the "filter medium" term can readily be construed as agreed by the parties. The filter medium, which *may* comprise "pleated filter cloth or paper, surrounds the outer water-permeable wall of the bed to prevent radially-flowing sediment from entering the bed." ('639 patent, col. 3, ln. 36-39.) In essence, the filter medium encapsulates the filter basket, as taught by the '527 patent, and is meant "to further protect the bed from infiltration of particulate matter that causes clogging and reduced flow." (*Id.* at col. 5, ln. 14-18.) It is this filter medium that is cleaned by the '639 patent's self-cleaning mechanism.

Infringement of the '639 Patent

In order to literally infringe the '639 patent, the BayFilter must include every element found in the claim language. *Southwall Techs., Inc.*, 54 F.3d at 1575. Summary judgment is appropriate when there is no

material factual dispute. Fed.R.Civ.P. 56. Because the BayFilter does not include elements required by the '639 patent, BaySaver and AccuBid are entitled to summary judgment.

As the final paragraph of independent claim 6 illustrates, to infringe the '639 patent, a storm water filter must have a filter medium that encapsulates a water-permeable filtration basket. Contech argues that the "outermost annular layers" of the spirally wound filtration material in the BayFilter "satisfies the 'cylindrical filter medium' limitation of subpart (b) of claim 6 ... [and that] any one or more of the inner annular layers, which are surrounded by the outermost layer, *could* satisfy the 'annular bed material' limitation of subpart (c) of claim 6." (Pl.'s Opp. Mem. at 28-29 (emphasis added.)) BaySaver and AccuBid, however, argue that the BayFilter is simply a "multilayer filter system with internal channels ... [and] does not have a filter medium around the bed." (Def.'s Mem. at 32.)

Based on the BayFilter Technical and Design Material and the illustration of the BayFilter provided by Contech, (Pl.'s Opp. Mem. at 29,) it does not appear that the BayFilter has a "filter medium" as envisioned by the '639 patent. Even if the court accepts Contech's argument that BayFilter's multiple layers of filter correspond to an "annular bed of material" as taught by the '639 patent, there is no evidence to suggest that there is an outer layer of filter material in the BayFilter that corresponds to the "cylindrical filter medium" taught by the patent. Contech relies on an unsubstantiated argument that the outermost annular layer of the BayFilter *could* satisfy the "cylindrical filter medium" element and that the inner annular layers *could* satisfy the "annular bed of material" element of the patent. In *Southwall Techs.*, the Federal Circuit rejected similar unsubstantiated arguments as "conclusory legal opinions." 54 F.3d at 1578. Furthermore, such an interpretation misconstrues the mechanics of the BayFilter and the '639 patent's description of the term "cylindrical filter medium." The BayFilter does not have an "outer layer" as envisioned by the '639 patent, which induces a horizontal flow of storm water through water-permeable outer walls. Instead, storm water flows vertically through the BayFilter from its base. Thus, any self-cleaning mechanism in the BayFilter that utilizes scrubbing air bubbles or backwash passes through the internal filtration layers. (Def.'s Mem. at Ex. J, BayFilter Tech. Man. at 33.) The '639 patent, however, teaches of air scrubbing bubbles that pass between the housing container and the outer water-permeable wall of the filtration basket, which is enclosed within the "cylindrical filter medium." The '639 self-cleaning mechanism allows air to bubble "upward to dislodge particulate material from the filter medium." Because the BayFilter does not have a "cylindrical filter medium," and because the BayFilter does not contain a filtration basket as taught by the '527 patent, it cannot infringe the '639 patent. Therefore, summary judgment is appropriate for the defendants on Contech's claims of infringement of the '639 patent.FN2

FN2. The defendants also have moved for Rule 11 Sanctions, which are not warranted. That motion will be denied.

A separate order follows.

ORDER

For the reasons stated in the accompanying memorandum, IT IS this 25th day of *September*, 2007, hereby ORDERED that:

1. Contech's Motion for Leave to File a Surreply (docket entry no. 36) IS GRANTED;

2. The defendants' Motion for Summary Judgment of Noninfringement (docket entry no. 25) IS GRANTED;
3. The defendants' Motion for Rule 11 Sanctions (docket entry no. 35) IS DENIED; and
4. The clerk shall CLOSE this case.

D.Md.,2007.

Contech Stormwater Solutions v. Baysaver Technologies, Inc.

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