

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WISCONSIN

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Z TRIM HOLDINGS, INC., and  
FIBERGEL TECHNOLOGIES, INC.,

Plaintiffs,

v.

FIBERSTAR, INC.,

Defendant.

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OPINION and ORDER

3:07-cv-00161-bbc

Plaintiffs Z Trim Holdings, Inc. and Fibergel Technologies, Inc. own U.S. Patent No. 5,766,662 (the ‘662 patent), which claims as its invention “dietary fiber gels for calorie reduced foods.” Defendant manufactures a line of allegedly infringing products called Citri-Fi® made from the pulp of citrus fruit. Plaintiffs contend that defendant has willfully infringed claims 1-5 and 19 of the ‘662 patent by manufacturing and selling its Citri-Fi® products.

Defendant has filed two motions for summary judgment, asserting noninfringement, no willful infringement and invalidity under several different theories. In addition, defendant has filed a motion to strike a supplemental expert opinion, dkt. #82, and a

motion to clarify the claim construction ruling as it relates to “gellable” and “gellable product,” dkt. #91. Plaintiffs have filed a motion to strike portions of defendant’s expert report and summary judgment briefs. Dkt. #97.

Although the parties have raised many issues, this case can be resolved on any of three issues. Defendant’s products are neither “noncaloric,” “consisting essentially of . . . physically disrupted cellular debris” nor “consisting essentially of cellulosic . . . debris” as required by the ‘662 patent. Summary judgment for defendant is warranted on any of those three grounds, and will therefore be granted. This conclusion makes it unnecessary to decide defendant’s motion for summary judgment on invalidity its motion for clarification or its motion to strike plaintiffs’ supplemental expert opinion, as well as plaintiffs’ motion to strike defendant’s expert opinion and portions of defendant’s summary judgment briefs.

Before I turn to the facts, a word about procedure is in order. Rather than propose their own findings of fact, plaintiffs include additional facts in their brief and simply cite the source. I will not consider these facts. The parties were advised that “[t]he court will not consider facts contained only in a brief.” Procedure to Be Followed on Motions for Summary Judgment, I.B.4., attached to Preliminary Pretrial Conference Order (May 11, 2007), dkt. #17. “All facts necessary to sustain a party's position on a motion for summary judgment must be explicitly proposed as findings of fact.” Helpful Tips for Filing a Summary Judgment Motion in Cases Assigned to Judge Barbara Crabb, attached to

Preliminary Pretrial Conference Order on May 11, 2007, dkt. # 17.

I find the following proposed facts to be undisputed.

## UNDISPUTED FACTS

### A. The '662 Patent

Plaintiffs' '662 patent discloses:

1. A noncaloric, gellable product consisting essentially of cellulosic, physically disrupted cellular debris characterized by the property of yielding a viscosity of at least about 300 cps and a hydration capacity of at least about 10 times its weight when reconstituted with water at 3% solids.

2. The product of claim 1, wherein the source of said cellulosic, cellular debris is an agricultural product.

3. The product of claim 2, wherein said agricultural byproduct is selected from the group consisting of corn bran, oat hulls, soybean hulls and pea hulls.

4. A gellable composition comprising (1) a noncaloric, gellable product consisting essentially of cellulosic, physically disrupted cellular debris characterized by the property of yielding a viscosity of at least about 300 cps and a hydration capacity of at least about 10 times its weight when reconstituted with water at 3% solids and (2) a hydrophilic substance.

5. The composition of claim 4 wherein said hydrophilic substance is selected from the group consisting of maltodextrins, starches, gums, hemicelluloses, sugars, and oat flour hydrolyzates.

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19. A food composition normally comprising fat and/or flour, wherein at least a portion of said fat and/or flour has been replaced with the product of claim 1.

### B. The Citri-Fi® Products

Defendant sells a line of dietary fiber replacement products called “Citri-Fi®” products. Defendant’s products include Citri-Fi® 100, Citri-Fi® 100FG, Citri-Fi® 100M40, Citri-Fi® 200, Citri-Fi® 200FG and Citri-Fi® 300FG.

All of the Citri-Fi products are made of dried orange pulp. The pulp consists of juice sacs from the oranges without any juice remaining. Defendant’s manufacturing process washes and dewateres the pulp in a series of steps that removes the water and increases the solids content of the pulp. In the final steps, the pulp is dried, ground and packaged.

The Citri-Fi® 100 products are made of the dried pulp alone. Photomicrographs taken of the Citri-Fi® 100 product show that it contains both cellular fragments and large portions of intact cell wall structure. (The parties dispute whether the cell wall structure in the product is “significantly” disintegrated, but this is a conclusion, not a fact. In the underlying expert reports, defendant asserts that the photomicrographs show that large portions of cell wall structure remain intact and plaintiffs assert that the photomicrographs show evidence of cellular fragments and other pieces of cellular debris. Dft.’s Reply to Proposed Findings of Fact, #134 at 82, dkt. # 88; BeMiller Declaration, dkt. # 81 at ¶ 41; Gould Declaration, dkt. # 69 at ¶¶ 46-49. These facts are not incompatible. Moreover, although the report plaintiffs rely on is the subject of defendant’s motion to strike, I will consider plaintiffs’ assertions for the sake of argument.)

The Citri-Fi® 200 products are made of the same dried pulp mixed with guar gum and Citri-Fi® 300FG products are made of the dried pulp mixed with xanthan gum. The “FG” and “M40” lines are ground after initial processing to further reduce particle size, with “M40” being more finely ground than “FG.”

Insoluble fibers contribute essentially zero calories to the caloric content of a product because they are not broken down or digested in any appreciable extent in humans. The Citri-Fi® 100 products contain approximately 30% soluble fiber and approximately 40% insoluble fiber. In addition, Citri-Fi products contain at most 40% cellulose. Cellulose is an insoluble fiber that is relatively impermeable to water in its native state because it is arranged in individual polymer chains stuck together in parallel so tightly that water cannot penetrate them. Guar and xanthan gum are soluble, hydrophilic substances, so the Citri-Fi® 200 and Citri-Fi® 300 products contain an even lower percentage of insoluble fiber and cellulose.

The Citri-Fi products contain pectins and other soluble dietary fibers that by their very nature retain and hold water differently from cellulose. The structure of pectins is such that the spaces between the simple sugars naturally allow significant quantities of water to fit in and be held between them, permitting a relatively high water holding capacity.

All Citri-Fi product contain more than 0.5 calories per gram. (The parties dispute the actual caloric content. Defendant contends that the products contain at least 2.0 to 2.2

calories a gram. Plaintiffs contend that the products range from 0.65 to 0.92 calories a gram.)

## OPINION

### A. Noninfringement

#### 1. “Noncaloric”

Claims 1 and 4 of the ‘662 patent disclose a “noncaloric, gellable product.” (At the claim construction hearing held in this case on August 10, 2007, plaintiffs contended that claim 1 was not limited by this phrase. However, at summary judgment plaintiffs have wisely abandoned that position.) After the claims construction hearing, the court construed several claim terms, including the term “noncaloric,” which was construed as meaning “less than 0.5 calories per gram.” August 13, 2007 order, dkt. #47 at 1. Although plaintiffs concede that defendant’s dry Citri-Fi products contain more than 0.5 calories per gram, they contend that the products infringe (1) under the doctrine of equivalents and (2) when diluted with water.

#### a. Infringement under doctrine of equivalents

Under the doctrine of equivalents, “a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if

there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” Warner-Jenkinson Co. v. Hilton Davis Chemicals Co., 520 U.S. 17, 21 (1997). A broad, overall equivalence between an accused product and a patented invention is not enough; rather, “[e]ach element contained in a patent claim is deemed material to defining the scope of a patented invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole.” Id. at 29; Freedman Seating Co. v. American Seating Co., 420 F.3d 1350, 1358 (Fed. Cir. 2005).

At times, the doctrine of equivalence is framed in terms of whether the differences between the elements of the invention and the product are “insubstantial,” e.g., Freedman Seating Co., 420 F.3d at 1358, and at times in terms of the “triple identity test”: “whether the accused device performs substantially the same function in substantially the same way to obtain the same result as the claim limitation.” E.g., Catalina Marketing Int’l v. Coolsavings.com, Inc., 289 F.3d 801, 813 (Fed. Cir. 2002) (citations omitted). Key to either test is “[a]n analysis of the role played by each element in the context of the specific patent claim.” Warner-Jenkinson Co., 520 U.S. at 40. Regardless of the test used, the essential inquiry is whether “the accused product or process contain[s] elements identical or equivalent to each claimed element of the patented invention.” Id.

Plaintiffs try first to establish equivalence under the “insubstantiality” test,

contending that the Citri-Fi products' caloric content, purportedly between 0.76 and 0.92 calories per gram, is "insubstantially different" from this court's construction of "noncaloric," which set the upper limit at 0.5 calories per gram. However, the issue is not whether Citri-Fi products' caloric content is "close enough" to this court's construction, but whether it is close enough to "noncaloric." This is exactly the issue that was resolved in construing "noncaloric."

Although "noncaloric" literally means "zero calories," the court construed the term to require a fixed numeric limit to caloric content of "less than 0.5 calories per gram." As explained at the end of the claims construction hearing, an upper limit is necessary to give notice to persons trying to develop similar products. Less than 0.5 calories per gram is justified (and probably even generous), given the literal meaning of "noncaloric" and the presence of less than 0.1 calories per gram found in the examples provided by the '662 patent specifications (see Dr. Gould's calculations of examples 6 and 7, Second Gould Decl., dkt. #34, ¶¶ 3-4, which were not disputed during claim construction). Transcript, dkt. #48 at 105-06. By placing a numeric limit on "noncaloric," the court has determined the outer limits of what differences could be "insubstantial" and precluded further expansions under the doctrine of equivalents. Plaintiffs have given no reason for this court to reconsider its construction. At any rate, plaintiffs could not prevail on this argument because they failed to propose facts establishing that the difference between Citri-Fi products' caloric content



and “noncaloric” is considered insubstantial by those skilled in the art.

Next, plaintiffs attempt to establish equivalence under the “triple identity test,” contending that the caloric content of Citri-Fi® products is equivalent to “noncaloric” because the products may be used to make a “reduced calorie” fat or flour alternative.

However, the fact that the “noncaloric” product may be used effectively as a “reduced calorie” food additive is a result of the invention as a whole, not just the “noncaloric” limitation. Equivalence, even under the “triple identity test,” must be determined at the level of the “individual elements of the claim, not . . . the invention as a whole.” Warner-Jenkinson Co., 520 U.S. at 29; Catalina Marketing Int’l, 289 F.3d at 812-13. Thus, to establish “triple identity” equivalence under their theory, plaintiffs must establish that Citri-Fi®’s quality of having “reduced calories” (above 0.5 calories per gram) performs substantially the same function in substantially the same way to obtain the same result as the claimed limitation of being “noncaloric” (below 0.5 calories per gram). This argument boils down to whether “noncaloric” should really be limited to 0.5 calories per gram, a question I have already answered.

Because the upper limit of “noncaloric” is less than 0.5 calories per gram and defendant’s Citri-Fi products contain more than 0.5 calories per gram, defendant’s products do not infringe under the doctrine of equivalents.

b. Infringement of diluted product

Plaintiffs contend that when Citri-Fi<sup>®</sup> product are diluted seven to one with water, they become “noncaloric” while still remaining a gel, thus satisfying the claim requirements. This theory is the subject of defendant’s motion to clarify the term “gellable/gellable product” and other disputes scattered throughout the parties’ briefs regarding the scope of claim terms already construed. Although the parties’ disputes appear in the context of “gellable/gellable product” and other claim terms, their real dispute is whether a product’s caloric content may be measured wet or dry for purposes of determining whether a product is “noncaloric.”

This issue was not raised at the time the court construed “noncaloric,” so the court’s construction of “noncaloric” is silent on the issue. However, both the patent and common sense require dry measurement. The obvious implication of allowing diluted measurements of caloric content is that the limitations imposed by “noncaloric” are weakened. Nothing in the patent calls for measurement of caloric content of a gel. Indeed, in the two examples in which caloric content is measured in the patent specification (examples 6 and 7), the product is dried before caloric content is measured. ‘662 pat., col. 8, lns. 23-27 and 53-58. These examples served as guides for the court in setting the upper limit of “noncaloric” at less than 0.5 calories per gram. Dkt. #48 at 105-06. Finally, plaintiffs’ position would mean a diluted product could be “noncaloric” so long as it was still a gel. Thus, persons

trying to develop similar products would have to test their products as gels diluted to their maximum, making it far more difficult to determine whether their products infringe. Because allowing diluted measurement of caloric content would undermine the meaning of “noncaloric” and detract from the notice-giving purpose of setting the upper limit, I conclude that for the purpose of determining whether a product is “noncaloric,” the caloric content of product must be measured when dry.

Because all of the Citri-Fi® products contain at least 0.76 calories per gram when dry, they are not “noncaloric.” Therefore, none of defendant’s products infringe claims 1 or 4 of the ‘662 patent. Moreover, it is a “fundamental principle of patent law that dependent claims cannot be found infringed unless the claims from which they depend have been found to have been infringed.” Jeneric/Pentron v. Dillon Company, Inc., 205 F.3d 1377, 1383 (Fed. Cir. 2000). Therefore, because dependent claims 2, 3, 5 and 19 depend from claims 1 and 4, defendant’s Citri-Fi products do not infringe those claims, either.

2. “Consisting essentially of cellulosic, physically disrupted cellular debris”

Even if plaintiffs’ products were “noncaloric” or equivalent, separate grounds exist for granting summary judgment. Claims 1 and 4 disclose a product “consisting essentially of cellulosic, physically disrupted cellular debris.” Following the claims construction hearing in this case, the court construed the terms “consisting essentially of” to mean “all

components expressly recited in the claim and any additional components that do not materially affect the basic and novel properties of the invention”; “cellulosic” to mean “made of cellulose”; and “physically disrupted cellular debris” to mean “debris composed of substantially completely disintegrated morphological cellular structures.” Thus, to meet the terms of claim 1 as construed by the court, a product must be (1) debris composed of substantially completely disintegrated morphological cellular structures, which is (2) made of cellulose and which (3) does not contain components in addition to either of these elements that would materially affect the basic and novel properties of the invention.

I will assume as true plaintiffs’ assertion that Citri-Fi® 100 products contain cellular fragments and other pieces of cellular debris and that these “cellular fragments” are sufficiently “disintegrated” to be considered “debris composed of substantially completely disintegrated morphological cellular structures.” In addition, I will assume that Citri-Fi products contain *some* cellulose even though the facts proposed establish only that the products contain *at most* 40% cellulose.

Even with the benefit of these assumptions, plaintiff cannot show infringement of claims 1 or 4 by the Citri-Fi products because the products contain large portions of cell wall structure and soluble, non-cellulosic materials, both properties that “materially affect the basic and novel properties of the invention.”

- a. Large portions of cell wall structure in product materially affects basic and novel properties of the invention

First, the specification of the '662 patent makes plain that uniform substantial disintegration of morphological cellular structures is one of the “basic and novel properties of the invention.” The invention is described as creating a dried product characterized by “fiber particles [that] are completely disrupted and exist as a cellular debris,” col. 4, lns. 60-66, and that create a “smooth textured gel” useful as an ingredient in calorie-reducing foods because it avoids “imparting undesirable cotton-like or dry mouthfeel or a sandy, chalky, or gritty texture.” Col. 5, lns. 10-11. The specification distinguishes examples of prior art, which “essentially leave the morphological structures of the cellular tissue intact and tend to impart a coarse [sic] texture to the end product.” '662 Pat., col. 1, lns. 42-52. The properties associated with the “large portions of intact cell wall structure” found in Citri-Fi® 100 (and therefore present in all of the derivative Citri-Fi products) conflict with those touted by the invention and therefore would “materially affect” the disrupted cellular debris. Because the Citri-Fi products contain large portions of intact cell wall structure, they do not have the uniformity necessary to “consist essentially of . . . physically disrupted debris.”

- b. High quantities of non-cellulosic material in product affects the basic and material properties of the invention

Second, plaintiffs contend that it is question of fact whether the non-cellulosic elements of the Citri-Fi products affect the “basic and novel properties” of the invention. The specification for the ‘662 patent demonstrates an awareness that insoluble dietary fiber such as cellulose contains special beneficial properties. The specification notes in the background of the invention that “not all dietary fiber is the same and that different fibers provide different health benefits. For example, wheat bran is very rich in insoluble dietary fiber (mainly cellulose and hemicellulose) and is excellent for decreasing the transit time of food through the digestive tract.” ‘662 Pat., col. 1, lns. 29-30. Then, the specification notes that the invention is aimed toward creating a food substitute, asserting that objects of the invention include “provid[ing] a novel gel carbohydrate material having utility as a reduced-calorie fat and/or flour substitute in a variety of food compositions” and creating a “smooth” gel. ‘662 Pat., col. 2, lns. 39-41, 46. Finally, the specification details the problems with prior art, pointing to some prior art that created a product from insoluble fiber but tended to impart a coarse texture to the end product, col. 1, lns. 50-52, and to other prior art that addressed soluble dietary fibers instead. Col. 1, lns 66-67.

After reading the patent and specifications, I conclude that containing mostly insoluble fiber is a “basic and novel property of the invention.” The invention recognized

the unique advantages of using insoluble fibers such as cellulose and discovered a way to overcome difficulties encountered by prior art to create a smooth gel made of insoluble fiber that is useful as a substitute ingredient in food products. Because the Citri-Fi products contain at most 40% cellulose, they do not “consist essentially of . . . cellulosic . . . debris.” Therefore, none of defendant’s products infringe claims 1 or 4 of the ‘662 patent. As explained above, because the Citri-Fi products do not infringe independent claims 1 or 4, they cannot infringe dependent claims 2, 3, 5 or 19. Jeneric/Pentron, 205 F.3d at 1383.

Because defendant’s products do not infringe any of the claims asserted, I will grant defendant’s motion for summary judgment in full.

#### B. Miscellaneous Motions and Defendant’s Remaining Counterclaims

The parties have filed several motions related to defendant’s motions for summary judgment. Defendant has filed a motion to strike a supplemental expert opinion and a motion to clarify the claim construction ruling, and plaintiffs have filed a motion to strike portions of defendant’s expert report and of the briefs in support of summary judgment. Because defendant will be granted summary judgment on other grounds, all three motions will be denied as moot.

Next, aside from its motion for summary judgment for noninfringement, defendant has filed a separate motion for summary judgment on the issue of invalidity. Because

defendant's motion for summary judgment will be granted on the basis of noninfringement, defendant's motion for summary judgment of invalidity will be denied as moot. Unette Corp. v. Unit Pack Co., Inc., 785 F.2d 1026, 1029 (Fed. Cir. 1986) (finding that district court properly dismissed motion for summary judgment on invalidity after finding noninfringement). For the same reason, defendant's counterclaims of invalidity and unenforceability must be dismissed. This court loses jurisdiction over these counterclaims once there is no longer an ongoing "case or controversy." Cardinal Chemical Co. v. Morton Intern., Inc., 508 U.S. 83, 95 (1993) (in trial court, party seeking declaratory judgment must establish "actual case or controversy"); Amana Refrigeration, Inc. v. Quadlux, Inc., 172 F.3d 852, 855 (1999) ("actual controversy" requires ongoing explicit threat of infringement suit). The only "case or controversy" asserted by defendant is plaintiff's claim of patent infringement, which has been resolved. Dft.'s Counterclaim, dkt. #6 at 13, ¶15. As this court has explained,

A challenge to a claim's invalidity is not an independent cause of action but a *defense* to a claim for infringement. Determining a claim's validity without a corresponding claim for infringement would be akin to considering a request for a declaratory judgment that the limitations period had run for a cause of action that had never been filed.

Garmin Ltd. v. TomTom, Inc., 468 F. Supp. 2d 988, 994 n.1 (W.D. Wis. 2006). Likewise, determining a claim's validity *after dismissing* a corresponding claim of infringement would be akin to determining whether a limitations period has run for a cause of action dismissed



on other grounds. Therefore, defendant's counterclaims must be dismissed as moot.

## ORDER

IT IS ORDERED that

1. Defendant Fiberstar, Inc.'s motion for summary judgment with respect to plaintiffs Z Trim Holdings, Inc. and Fibergel Technologies Inc.'s claims of infringement is GRANTED.

2. Defendant's motion for summary judgment with respect to its counterclaim for invalidity, its motion to strike the supplemental infringement and invalidity opinions of James N. BeMiller, Ph.D. and its motion to clarify the claim construction ruling are DENIED as moot.

3. Plaintiffs' motion to strike portions of defendant's expert report and of the briefs in support of summary judgment is DENIED as moot.

4. Defendant's counterclaims that U.S. Patent No. 5,766,662 is invalid and unenforceable are DISMISSED as moot.

5. The clerk of court is directed to enter judgment in accordance with this order and

close this case.

Entered this 28th day of January, 2008.

BY THE COURT:

/s/

BARBARA B. CRABB

District Judge