

United States District Court,  
S.D. New York.

**CULTOR CORPORATION and CULTOR FOOD SCIENCE, INC,**  
Plaintiffs.

v.

**A.E. STALEY MANUFACTURING COMPANY,**  
Defendant.

No. 98 CIV. 1199(JSM)

**Oct. 26, 1998.**

Reconsideration Denied Nov. 13, 1998.

Frank H. Penski, Kelly L. Morron, David A. Feldman, Nixon, Hargrave, Devans & Doyle LLP, New York,  
for Plaintiffs.

Salem M. Katsh, Jaculin Aaron, James R. Warnot, Jr., Antoinette E. Baker, Shearman & Sterling, New  
York, for Defendant.

### **MEMORANDUM OPINION AND ORDER**

**MARTIN, District J.**

As Americans have endeavored to have their cake and lose weight too, there has been tremendous growth in the market for edible polydextrose, which serves as a low calorie substitute for flour and other starches. The principal dispute in this case is whether the defendant's polydextrose and its manufacturing process infringe patents held by plaintiffs. Since the Court concludes that they do not, plaintiffs' motion for a preliminary injunction is denied and defendant's motion for summary judgment is granted.

Both of the parties agree that a significant step in the commercial use of polydextrose in food manufacturing came when Hans H. Rennhard developed a patented process for manufacturing edible polydextrose. One of the steps in Rennhard's process involved melting and heating dextrose in the presence of a catalytic amount of citric acid.

While Rennhard's product had substantial commercial success, plaintiffs contend that in some uses it left a slightly bitter taste. Plaintiffs FN1 therefore set out to find a solution to this bitter taste problem. At the time plaintiffs were working on the problem of removing bitterness from Rennhard's polydextrose, there was no other edible polydextrose available because the Food and Drug Administration would not approve polydextrose prepared by a process using inorganic acids for use in food. Ultimately, plaintiffs' scientists, Messrs. Guzek, et. al, discovered that the bitter taste of Rennhard's polydextrose could be eliminated by the use of an ion exchange column that would remove bound citric acid esters from the polydextrose.

FN1. Actually the process was developed by scientists employed by a predecessor company, but since this fact is of no significance here, the term "plaintiffs" is used herein to include the original applicants.

While plaintiffs were working on improving Rennhard's polydextrose, defendant was attempting to develop an edible polydextrose using a slightly different process-no doubt hoping that it could compete against Rennhard's product without infringing his patents. Defendant's process involved using phosphoric acid as a catalyst. However, the FDA objected to approving defendant's product because of the presence of residual phosphates. Defendant therefore agreed to reduce the amount of residual phosphates, which it did through the use of an ion exchange.

In 1997, plaintiffs were issued both a process and product patent relating to the polydextrose derived by passing the Rennhard polydextrose through an ion exchange. They then commenced this lawsuit claiming that defendant's product and process infringe their patents.

### *Discussion*

While plaintiffs argue that defendant infringes several claims in their patents, the issue before the Court can be illustrated by focusing on claim 32 of Patent No. 5,667,593 which reads: "a polydextrose bulking agent useful for incorporation in reduced calorie foods, substantially free of bitter-tasting compounds."

Plaintiffs contend that defendant sells a polydextrose bulking agent free from bitter tasting compounds and therefore infringes their patent. Defendant contends, however, that the term polydextrose is defined by plaintiffs in their patent as: "the water-soluble polydextrose prepared by melting and heating dextrose ... in the presence of a catalytic amount of citric acid."

Defendant argues that since its product is made without the use of citric acid it does not infringe plaintiffs' patents. To determine whether a patent has been infringed, the court must engage in a two step process. First, the Court must determine the proper construction of the claim, and then it must decide if the defendant's product infringes the asserted claim as properly construed. *See, e.g., Vitronics Corp. v. Conceptronics, Inc.*, 90 F.3d 1576, 1581-82 (Fed.Cir.1996).

The principles governing proper construction of patent claims were set forth by the Federal Circuit in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed.Cir.1995), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), as follows:

Claims must be read in view of the specification, of which they are a part. The specification contains a written description of the invention that must enable one of ordinary skill in the art to make and use the invention. For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. As we have often stated, a patentee is free to be his own lexicographer. The caveat is that any special definition given to a word must be clearly defined in the specification. The written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of claims.

To construe claim language, the court should also consider the patent's prosecution history, if it is in evidence. This "undisputed public record" of proceedings in the Patent and Trademark Office is of primary significance in understanding the claims. The court has broad power to look as a matter of law to the

prosecution history of the patent in order to ascertain the true meaning of language used in the patent claims: "Th[e] construction of the patent is confirmed by the avowed understanding of the patentee, expressed by him, or on his half [sic], when his application for the original patent was pending .... [W]hen a patent bears on its face a particular construction, inasmuch as the specification and claim are in the words of the patentee, ... such a construction may be confirmed by what the patentee said when he was making his application."

*Id.* at 979-80 (quoting *Goodyear Dental Vulcanite Co. v. Davis*, 102 U.S. 222, 227, 26 L.Ed. 149 (1880) (alterations in original)) (citations omitted).

Application of those principles to the facts presented here demonstrates that what plaintiffs told the Patent Office they were inventing was an improved form of Rennhard's polydextrose from which they removed citric acid esters that gave it a bitter taste. That is precisely what they defined in their patent and that is the limit of the patent protection to which they are entitled.

While the definition in the patent clearly limits the term polydextrose to that prepared with a citric acid catalyst, plaintiffs urge the court to ignore their definition arguing that it is improper to read limitations from the specifications into the claims, citing *Lifescan, Inc. v. Home Diagnostics, Inc.* 76 F.3d 358, 361 (Fed.Cir.1996). Plaintiffs ignore the fact that the very page they cite in *Lifescan* contains the following citation:

*See E.I. DuPont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433, 7 USPQ2d 1129, 1131 (Fed.Cir.) (prohibiting reading limitations from the specification into the claims " *wholly apart from any need to interpret what the patentee meant by particular words or phrases in the claim* "), cert. denied, 488 U.S. 986, 109 S.Ct. 542, 102 L.Ed.2d 572 (1988).

*Lifescan*, 76 F.3d at 361 (emphasis added). Thus, there is no reason to ignore the teaching of *Markman* that "[c]laims must be read in view of the specification, of which they are a part." *Markman*, 52 F.3d at 979.

Plaintiffs also argue that the Court should ignore the definition they used in the patent at issue because a broader claim appeared in an earlier patent as to which they initiated an interference proceeding which was ultimately settled. While there may be circumstances where the lack of any other source from which to divine the meaning of a term used in a patent makes resort to the original patent application appropriate, as a general rule "the specification that is relevant to claim construction is the specification of the patent in which the claims reside." *Young Dental Mfg. Co. v. Q3 Special Products, Inc.*, 112 F.3d 1137, 1143 (Fed.Cir.1997).

Moreover, the following portions of the patent history demonstrate that the limitation of the invention to polydextrose prepared with citric acid was not accidental but was vital to persuading the Patent Office to issue the patent.

In 1989, plaintiffs filed a Rule 37 C.F.R. 1.111 Reply in which they stated, "In summary, applicants invention is directed to a method for reducing bitterness in Rennhard's polydextrose, and the improved polydextrose produced thereby." This same document went on to state:

Thus, the present, surprising discovery that *bound* citric acid is a crucial factor associated with the bitter taste of Rennhard's unimproved polydextrose represents a key part of the present invention. And it is the

limitation in *bound* citric acid levels in applicants' claimed product which is the patentably significant feature of the present invention.

In a similar reply filed in June 1992, plaintiffs disputed the examiner's claim that their product and process were anticipated in the prior art by stating "Cherukuri et al. do not disclose a polydextrose composition wherein the level of *bound citric acid* ... is reduced to 0.3 mol percent or less." They also said "Rennhard discloses the use of ion exchange for the purpose of reducing acidity, *not* for the purpose of reducing or eliminating bound citric acid to reduce bitterness."

In a document mailed on March 19, 1993, the examiner denied plaintiffs' claims noting

Each reference teaches that the final product may be further purified to remove acidity by ion exchange, although the purpose is for avoiding an unwanted reaction between any residual acid and milk protein .... Thus, it would have been obvious to have further purified the polydextrose of the references on ion exchange columns to remove residual acidity in the polydextrose arising from the presence of citric acid in the product in order to obtain polydextrose suitable for use in milk protein products. The product so-obtained is deemed identical to applicants' product.

Thereafter plaintiffs submitted a reply in which they stated, "None of the cited references, nor any combination thereof, teaches, discloses or suggests polydextrose having a reduced content of *bound* citric acid in the form of *ester groups* nor provides any motivation to produce such polydextrose." They also submitted a declaration to demonstrate that "[n]one of Torres, Bunick et al. or Luo inherently reduces *bound* citric acid *ester* content in polydextrose to 0.3 mol percent or less ... and that citric acid esters of polydextrose are bitter ...."

In sum, the entire prosecution history shows that what plaintiffs sought was a patent for an improvement to Rennhard's polydextrose and that they distinguished their product and process from the prior art by emphasizing that the prior art did not recognize that it was the bound citric acid esters in Rennhard's polydextrose that left a bitter taste. Having obtained their patents by emphasizing the limited scope of their invention, plaintiffs are estopped from asserting that the claims should be construed more broadly. *Alpex Computer Corp. v. Nintendo Co.*, 102 F.3d 1214, 1221 (Fed.Cir.1996). Thus, it is entirely appropriate to limit the term polydextrose as used in the claims of plaintiffs' patents to polydextrose "prepared by melting and heating dextrose ... in the presence of a catalytic amount of citric acid."

To grant plaintiffs a broader patent which would encompass any polydextrose which might be considered "free of bitter tasting compounds" would be to allow them to patent a concept or desirable result, however it may be achieved. "Abstractions can not be patented." *Sealed Air Corp. v. U.S. Int'l Trade Comm'n*, 68 C.C.P.A. 93, 645 F.2d 976, 985 (C.C.P.A.1981). It is a well established rule of patent claim construction that claims should be interpreted, if possible, so as to preserve their validity. *Amhil Enter. v. Wawa, Inc.*, 81 F.3d 1554, 1561 (Fed.Cir.1996).

Finally, plaintiffs assert that even if defendant's polydextrose does not literally infringe their patents, they can still be found to infringe under the doctrine of equivalents. However, to apply the doctrine of equivalents simply because defendant's product was "free from bitter tasting compounds" would again run afoul of the principle that one can not patent a desirable result. Plaintiffs' argument brings to mind a commercial familiar to every sports fan in which a beer company asserts that its beer is "less filling" and "tastes great." While the beer company may have a patented process by which it produces a beer having

these qualities, its patent does not protect it from competition from other companies who produce less filling, great tasting beer by another process. Similarly, plaintiffs, who patented a process to remove bitter tasting citric acid esters from Rennhard's polydextrose, may not assert a claim of patent infringement against the defendant, who has manufactured a polydextrose using a different process, simply because the resulting product also tastes great because it is free from bitter tasting compounds.

It is also inappropriate to apply the doctrine of equivalents to preclude defendant from purifying their polydextrose by use of an ion exchange because the doctrine of equivalents does not apply to matters disclosed by prior art. *Key Mfg. Group v. Microdot, Inc.*, 925 F.2d 1444, 1449 (Fed.Cir.1991). As noted above, on March 19, 1993, the examiner denied plaintiffs' claims because he found that it would have been obvious to one skilled in the art to use an ion exchange to purify polydextrose.

Since defendant's process and product do not infringe plaintiffs patent either literally or under the doctrine of equivalents, defendant's motion for summary judgment is granted and the complaint is dismissed.

Plaintiffs have moved to dismiss defendant's counterclaims and defendant has opposed the motion and alternatively asked for leave to replead any counterclaim found to be deficient. Defendant is to advise the Court within twenty days of this order whether it intends to pursue the counterclaims now that the complaint has been dismissed.

SO ORDERED.

S.D.N.Y.,1998.

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