

United States District Court,
D. Minnesota, Third Division.

MINNESOTA MINING AND MANUFACTURING COMPANY,
Plaintiff.

v.

LAKE COUNTRY MANUFACTURING, INC,
Defendant.

Civil No. 3-94-417

March 27, 1996.

As Amended April 15, 1996.

Holder of patent on foam pad used for buffing paint finish on automobiles sued alleged infringer. Following bench trial, the District Court, Mason, United States Magistrate Judge, held that: (1) patent was valid; (2) accused product literally infringed patent; (3) alleged infringer was liable for contributory infringement; (4) appropriate measure of damages was royalty of \$1 per pad; and (5) infringer was not liable for increased damages or for attorney fees.

So ordered.

Douglas Strawbridge, and Andrew Val, of Merchant & Gould, Minneapolis, MN, for Plaintiff.

Robert Gutenkauf, of Burd, Bartz & Gutenkauf, Minneapolis, MN, and Frederick Finch, of Bassford, Lockhart, Truesdell & Briggs, Minneapolis, MN, for Defendant.

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER FOR JUDGMENT

MASON, United States Magistrate Judge.

The above matter came on for trial before the Court, a jury having been waived. Douglas Strawbridge, Esq. of Merchant, Gould, Smith, Edell, Welter & Schmidt and Andrew Ubel, Esq. of Minnesota Mining and Manufacturing Company appeared on behalf of Plaintiff; Robert Gutenkauf, Esq. of Burd, Bartz & Gutenkauf and Frederick Finch, Esq. of Bassford, Lockhart, Truesdell & Briggs appeared on behalf of Defendant. Pursuant to 28 U.S.C. s. 636(c) and related Rules of this Court, the parties waived their right to proceed before a United States District Judge and voluntarily consented to have all proceedings in this case conducted and determined by the undersigned Magistrate Judge. It was so ordered by District Judge Michael J. Davis. The parties exchanged post-trial Memoranda, and the matter is now submitted to the Court for a decision. The Court's Order dated March 27, 1996 contains clerical mistakes which are corrected by this Order pursuant to Fed.R.Civ.P. 60(a).

Plaintiff Minnesota Mining and Manufacturing Company ("3M") and Defendant Lake Country Manufacturing, Inc. sell competing foam buffing pads. 3M is the owner by assignment of a patent on a foam pad used for buffing the paint finish on automobiles, U.S. Patent No. 5,007,128 (the "patent in suit" or the "'128 patent"), issued April 16, 1991. 3M contends that certain of Lake Country's products infringe the patent in suit, and that the infringement is willful. Lake Country denies these allegations, and has counterclaimed, alleging that the patent in suit is invalid.

Prior to trial, this matter was before the District Court on motions of Plaintiff and Defendant for summary judgment. The Court granted partial summary judgment in favor of Plaintiff, determining that Plaintiff did not prosecute the patent inequitably, is not barred by laches or estoppel, and that the patent in suit is not anticipated under 35 U.S.C. s. 102. It denied all other motions [Docket No. 36].

FINDINGS OF FACT

I. VALIDITY

[1] Defendant argues that the patent in suit is invalid by reason of "same invention" double patenting (35 U.S.C. s. 101) and on the ground of obviousness (35 U.S.C. s. 103). Patents are presumed to be valid, and Lake Country must establish its claims of invalidity by clear and convincing evidence. *E.g.*, *Radio Corp. of Am. v. Radio Eng. Lab., Inc.*, 293 U.S. 1, 2, 55 S.Ct. 928, 929, 79 L.Ed. 163 (1934); *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 872 (Fed.Cir.1985).

A. *Same-Invention Double Patenting*

[2] Defendant contends that the patent in suit and U.S. Patent No. 4,962,562 "involve double patenting of the same invention type." It points out that the two patents name the same inventors, are both owned by 3M, and involve the same subject matter. Defendant candidly "acknowledges that if the Court determines that the only test of same invention-type double patenting is an exact correspondence between the claims being compared, then this has not been proven." The District Court has already made this determination of law, when it denied Defendant's Motion for Summary Judgment. The decision of the District Court was based upon holdings of the Court of Appeals for the Federal Circuit. *E.g.*, *In re Vogel*, 422 F.2d 438 (C.C.P.A.1970); *Studiengesellschaft Kohle v. Northern Petrochemical Co.*, 784 F.2d 351 (Fed.Cir.), *cert. denied*, 478 U.S. 1028, 106 S.Ct. 3343, 92 L.Ed.2d 763 (1986); *Phillips Petroleum Co. v. U.S. Steel Corp.*, 673 F.Supp. 1278 (D.Del.1987), *aff'd*. 865 F.2d 1247 (Fed.Cir.1989). Memorandum and Order, February 5, 1995 at p. 5 [Docket No. 36]. This Court reaches the same conclusion. Among the differences between U.S. Patent No. 4,962,562 and the patent in suit is the absence of any specific compression deflection value components in the claims of the patent in suit, and the fact that the patent in suit describes pads made of reticulated foam, while the '562 patent refers to the broader category of "open polymeric foam." The patent in suit is not invalid by reason of same invention-type double patenting.

B. *Obviousness*

[3] [4] Defendant contends that the patent in suit is invalid because the invention is obvious in light of the prior art. An idea is not patentable if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. s. 103. "Obviousness" is determined by a process which begins with reviewing the scope and content of the prior art, establishing the differences between the prior art and the claimed invention, then determining the

level of ordinary skill of a person working in the pertinent field. *Graham v. John Deere Co.*, 383 U.S. 1, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966). The Court must also examine "secondary considerations such as commercial success, long felt but unsolved needs, failure of others," copying and other objective evidence. *Graham*, 383 U.S. at 17-18, 86 S.Ct. at 694; *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1270-73 (Fed.Cir.1991); *Simmons Fastener Corp. v. Illinois Tool Works, Inc.*, 739 F.2d 1573, 1575 (Fed.Cir.1984), *cert. denied*, 471 U.S. 1065, 105 S.Ct. 2138, 85 L.Ed.2d 496 (1985). The defendant must prove that a person with ordinary skill in the art, reviewing the relevant prior art at the time the invention was made, would find the invention as a whole obvious. *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 894 (Fed.Cir.), *cert. denied*, 469 U.S. 857, 105 S.Ct. 187, 83 L.Ed.2d 120 (1984).

[5] In determining the level of ordinary skill in the pertinent art, the Court may consider the educational level of the inventor, the types of problems encountered in the art, the prior art patents and publications, the activities of others, prior art solutions to the problems encountered by the inventor, the sophistication of the technology, and the education of others working in the field. *Graham*, 383 U.S. at 17-18, 86 S.Ct. at 693-694; *Custom Accessories v. Jeffrey-Allan Indus.*, 807 F.2d 955, 962-63 (Fed.Cir.1986); *Standard Oil Co. v. American Cyanamid*, 774 F.2d 448, 454 (Fed.Cir.1985); *Environmental Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696-97 (Fed.Cir.1983), *cert. denied*, 464 U.S. 1043, 104 S.Ct. 709, 79 L.Ed.2d 173 (1984).

[6] Defendant argues that certain prior art existed on January 18, 1988 which would have made the invention obvious to a person skilled in the art. FN1 Defendant points to the Meguiar patent for a flat foam polishing pad for cars (DX6), and the Glimfabriek patent for a foam floor polishing pad with projections and valleys (PX 69). It also points to other products and advertising of flat foam pads. *E.g.* DX28, PX49(a) and 49(b).

FN1. The "critical date" is January 18, 1988, for the reasons set forth by Defendant: "The patent in suit matured from a continuation in part of an earlier application that became U.S. Patent No. 4,962,562, which application was filed January 18, 1989."

As Defendant argues, a person with ordinary skill in the art would include people with experience in selling foam products, and those having knowledge of customers needs, the capability of foam products to meet those needs, and a desire to sell them. However, the Court cannot conclude that a person of such ordinary skill in the art would have combined these references at the time of the invention.

The predominant method of buffing painted surfaces on cars at the time of the invention was with a wool pad. Wool products had characteristics which were considered undesirable. They would raise temperatures enough to burn or melt the paint being polished, and they would leave swirl marks. They also would give off little pieces of lint, which could then contaminate the painting environment. The lint problem could be eliminated by using flat foam, but that was difficult to use. With unskilled use, the flat foam pads could "walk" or "skip" along the surface when they were employed in polishing and could also "burn" the surface.

These problems with wool pads and flat foam had existed for a long time, and there was a desire for improved methods. The constituent elements were available for many years, but it was not until the inventors Englund and Schwartz confronted these problems, and decided to alter the surface of the flat foam pads in an experiment with some packing type pads they had seen, that a solution was found. There was immediate commercial success. Given the success which these products have encountered in the market place, they would have been offered earlier if the invention were obvious.

In denying Defendant's Motion for Summary Judgment, the District Court concluded that Defendant had failed to present evidence which would show that the disparate pieces of prior art would be combined. At trial, Defendant offered the testimony of Richard Kraus, Louis T. Arnold and David Hornby in support of its claim. Mr. Kraus is a person with long experience in the foam business, and a person skilled in the art. He testified that it is "certainly possible" that it would have been obvious to a person skilled in the art to combine these references. Mr. Arnold testified by deposition that the S.M. Arnold Company sold to both automotive and floor polishing customers, and Mr. Hornby confirmed that sales were made to both types of customers.

[7] Defendant's evidence does not sustain its burden of establishing by clear and convincing evidence that a person with ordinary skill in the art, reviewing the prior art offered by Defendant at the time the invention was made, would have found the invention as a whole obvious. Despite the numerous products offered for sale by the companies employing Messrs. Kraus, Arnold and Hornby, it was not until after Plaintiff's invention that they offered the products covered by the claims in the patent. It appears that they were engaging in "hindsight gleaned from the invention itself" which is not permitted. *E.g.*, *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed.Cir.1985). The Board of Patent Appeals and Interferences in Appeal No. 93-4415 expressly considered the Meguiar and Glimfabriek references relied upon by Defendant, and concluded that the patent was not rendered obvious, and that the examiner who had so found had engaged in "impermissible hindsight." The addition of other prior art does not materially alter this conclusion. Obviousness may be shown which would result from combining references in the prior art, but only if there is some suggestion within those references which suggests the combination. *Interconnect Planning Corp.*, 774 F.2d at 1143; *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572 (Fed.Cir.1984).

[8] In concluding that the patent in suit is not obvious, the Court also considers the fact that it has already been reexamined. A party seeking to invalidate a patent has a more difficult burden to show that a patent is invalid if the Patent Office has reexamined the patent. *Interconnect Planning Corp.*, 774 F.2d at 1139; *Kaufman Co. v. Lantech, Inc.*, 807 F.2d 970, 973-74 (Fed.Cir.1986); *Fromson v. Advance Offset Plate, Inc.*, 755 F.2d 1549, 1555 (Fed.Cir.1985).

Based upon the foregoing analysis, Defendant has failed to prove that U.S. Patent No. 5,007,128 is invalid.

II. INFRINGEMENT

[9] Plaintiff 3M alleges that certain Lake Country polishing pads having a convoluted or "egg crate" surface directly infringe Claims 1 through 6 of 3M's '128 patent, and constitute contributory infringement of Claims 17 through 23 of that patent. Claims 1 and 17 are independent claims and each must be read separately to determine the scope of its claims. All of the elements of an independent claim must be present in the accused product to constitute direct infringement. Claims 2 through 6 depend from Claim 1, and Claims 18 through 23 depend from Claim 17. Since a dependent claim incorporates all of the limitations of the claim to which it refers, an accused product does not infringe the dependent claim unless all of the limitations of the dependent claim and the claim from which it depends are found.

A. Direct Infringement

Claim 1 of the patent in suit refers to a paint finishing pad which can be used with a buffing machine to apply glazing material to a painted surface to remove imperfections. Claim 1 includes some elements which Lake Country admits may be found in its accused products: a reticulated (open cell) polymeric foam pad

with convolutions or projections extending from a flat rear surface, with a means for attaching the pad to a buffing machine.

Claim 2 is a dependent claim, which adds ridges between the projections, laid out in a rectangular fashion; Claim 3 adds the requirement that the difference between the top and bottom of the projection be more than 1/4 inch; Claim 4 adds the requirement that the "resiliently compressible layer" be of polyester urethane reticulated open cell foam; Claim 5 requires that foam to have about 80 pores per linear inch; and Claim 6 adds the requirement that the resiliently compressible layer be of a density of 1.75 pounds per cubic foot in a specific foam.

[10] [11] A defendant incurs liability for direct infringement by making, using or selling the patented invention. 35 U.S.C. s. 271(a). 3M has the burden of establishing infringement by the preponderance of the evidence. *E.g.*, *Hughes Aircraft Co. v. United States*, 717 F.2d 1351, 1361 (Fed.Cir.1983). A two-step process is employed in determining whether a patent is infringed. In the first step, the scope of the claims is ascertained, in light of the claim language, the other claims in the patent, the patent specification, and, if necessary, the prosecution history of the patent. *E.g.*, *Scripps Clinic v. Genentech, Inc.*, 927 F.2d 1565, 1580 (Fed.Cir.1991). After the claims in patent are construed, the next step is to determine whether there is literal infringement, *i.e.* whether or not each limitation of the properly construed claim is literally found in the allegedly infringing product. *Corning Glass Works v. Sumitomo Elec.*, 868 F.2d 1251, 1258 (Fed.Cir.1989); *Builders Concrete Inc. v. Bremerton Concrete Prod. Co.*, 757 F.2d 255, 257 (Fed.Cir.1985).

1. Claim Construction

[12] No particular or special meaning is claimed to have been given to any of the words or terms. They are given the ordinary and common meaning by which they would be understood by a person skilled in the art. *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387 (Fed.Cir.1992). There are basically two phrases in Claims 1 and 17 as to which the proper construction is disputed. The first reads as follows:

"a projecting portion extended from the rear pad surface, and a recessed portion extended from the pad surface by a second distance that is *significantly less* than the first distance." (Emphasis supplied.)

[13] Defendant urges that the Court conclude that a difference of less than one-quarter inch is not "significantly less" within the meaning of this claim. It notes that the specification gives an example of 1/4 inch, and that Claim 3 requires a difference of "more than about 0.64 centimeters (0.25 inch)." Rather than support Defendant's point of view, these references imply a different construction. Under the doctrine of claim differentiation, Claim 3 is necessarily narrower than Claim 1, not identical to it. Moreover, patent claims are not limited to the preferred embodiment. *Laitram Corp. v. Cambridge Wire Cloth Co.*, 863 F.2d 855, 865-66 (Fed.Cir.1988), *cert. denied*, 490 U.S. 1068, 109 S.Ct. 2069, 104 L.Ed.2d 634 (1989); *SRI Intl. v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1121-22 (Fed.Cir.1985).

The principal disputed elements of Claims 1 and 17 are in the portion set forth below. To aid understanding, the Court has provided its own emphasis to some of the language:

"said layer of foam being *sufficiently resiliently compressible* to [1] allow the layer of foam to be pressed manually against the painted surface to compress the portions of the layer of foam toward the rear surface of the layer of foam and cause the parts of the front surface of the layer of foam defined by *both* the projecting portions *and* the recessed portions to generally conform to the painted surface *and* press the glazing or

compounding material into engagement with the painted surface for efficient removal of imperfections, and [2] subsequently to allow the layer of foam to be manually pressed against the painted surface with a *lesser* force only sufficient to compress *parts* of the projecting portions of the layer of foam to complete polishing of the painted surface."

[14] [15] The meaning of this claim is discernible from the language of the claim alone, although it is complicated phraseology. "Resiliently compressible" means that the foam will resume its shape after it is compressed. "Sufficiently resiliently compressible" means that [1] the foam must be soft enough to be able to perform the function of allowing the convolutions (projections) to compress enough so that both the projections and the flat portion will "generally conform to the painted surface" and cause "efficient removal of imperfections", and [2] it must be hard enough so that when a lesser force is used, only the projections do the polishing. A person operating a buffer would be able to vary the pressure on the pad in such a way as to choose to cause only the tips of the pad to touch the surface, or to cause all or virtually all of the pad face to come in contact with the surface being polished, when operating the buffer in the normal manner done in body shops. Put the other way around, a pad would not infringe if the foam were so hard that the projections could not be compressed to the painted surface with the flat portion for efficient cleaning under normal pressure, and it would not infringe if the foam were so soft that the projections were compressed to the painted surface with the flat portion even when a lesser force is used.

This interpretation seems required by the plain meaning of the words in the claim. The description of the invention and the manner of use of the invention confirm this interpretation. In column 3, lines 1 through 19, the inventor theorizes that advantages of the invention are achieved in some instances by "the different amounts of compression of the projecting and recessed portions" of the pad when the entire face generally conforms to the surface being polished, and that other advantages are achieved "when only the projecting portions are in contact with the painted surface." In addition, the specification describes the use of the invention involving an initial pressing down so the projections and the valleys both generally conform to the surface, and subsequently reducing the force so that only the projections are applied to the surface. Column 8, lines 17-64, and FIGS. 9 and 10.

2. Literal Infringement

[16] Lake Country markets some polishing pads with a standard convolution and a hook and loop mount. These include softer White and Yellow Waffle foam pads (*e.g.*, Plaintiff's Exs. 9 and 10), a stiffer White Euro Waffle pad (*e.g.*, Defendant's Ex. 10D), and a still stiffer Yellow Euro Waffle foam pad (*e.g.*, Plaintiff's Exs. 11D and 16). A double pad does not have the hook and loop mount. Lake Country also manufactures pads with a lower convolution in yellow foam (*e.g.*, Plaintiff's Ex. 12), and white foam. 3M claims that each of these products infringe the patent in suit.

Claim 1

Plaintiff and Defendant each performed demonstrations of the characteristics of the products of Defendant for the purpose of showing the relative resiliency of the alleged infringing products. The demonstrations were designed to reveal whether any of Defendant's challenged products were either too stiff or too soft to be "sufficiently resiliently compressible" to meet the conditions expressed in that portion of Claim 1. It is true, as Defendant argues, that these demonstrations did not measure or display with the same precision which could have been achieved by the use of other means of proof, such as high speed photography of the use of the products over clear surfaces, or similar techniques. However, the determination of whether there was infringement of this patent does not require measurement with such precision.

The demonstrations served to confirm the testimony of those who have used the products. All of Defendant's products presented to the Court by way of demonstration were shown to infringe Claim 1 of the patent in suit. This is true of the demonstrations performed by Plaintiff and by Defendant. In no instance was the foam pad so soft that its projecting positions would flatten under lesser pressure, and in no instance were the projecting portions insignificantly less than the recessed portions. Rather, in all cases, the pads were of sufficient stiffness that "only parts of the projecting portions of the layer of foam" were pressed to the painted surface under lesser pressure. Defendant did not seriously contend that its pads were too soft to be infringing.FN2

FN2. It did contend that the distance between projecting and recessed portions were less than one-fourth inch (1/4"), and thus were not "significantly" less, but this argument is rejected on the basis of the claim construction.

Defendant urges vigorously that its pads were too stiff to be compressed to conform generally to the painted surface under normal pressure. It argues that the method of polishing employed in Plaintiff's demonstration used a tilting of the buffing machine in a way that is not standard, and that the force used was excessive. It did not appear to the Court that the force was variable or intense. And although the polishing pad was not held perfectly horizontal, it was not tilted at an abnormal or awkward angle. It was employed in a smooth efficient manner, moving from side to side in an unremarkable manner. In any event, the same results were generally obtained by Defendant in its own demonstration.FN3 The Defendant's products are not too stiff to be compressed as described in Claim 1. The projecting portions and the recessed portions generally conformed to the painted surface in the polishing of the surface.

FN3. The demonstration by Defendant used an old red painted surface. Perhaps this particular surface showed results which surprised Defendants. Those results tended to confirm the conclusions demonstrated by Plaintiff.

Each of the elements in Claim 1 of the patent in suit are found in Defendant's hook and loop White and Yellow Waffle foam pads, and its White and Yellow Euro Waffle pads, and its low convolute pad presented to the Court. All of these pads infringe Claim 1 of the patent in suit.

Claims 2, 3, 4, 5 and 6

Defendant's challenged pads have "ridges" between the peaks and valleys, laid out in a rectangular arrangement, in a "standard convoluted" pattern. The pads thus also infringe Claim 2. Defendant admits that if its pads infringe Claim 1, they also infringe Claim 3 (except for the low convolute pad), and Claims 4 and 5, and that the White pads infringe Claim 6.

B. Contributory Infringement

[17] Claims 17 to 23 call for a *combination* of "a drive assembly" and a pad like those described in Claims 1 through 6. Since Lake Country does not manufacture or sell a drive assembly, it is not accused of direct infringement of these claims, but 3M does allege that Lake Country is guilty of contributory infringement. Contributory infringement is prohibited by 35 U.S.C. s. 271(c) which reads as follows:

Whoever sells a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

Thus, to establish contributory infringement, 3M must prove direct infringement of one of the combined components that it is a material part of the invention, that Lake Country knew that its pads were made for use in a manner which would directly infringe, and that the pads are not suitable for substantial noninfringing use. 35 U.S.C. s. 271(c); *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 81 S.Ct. 599, 5 L.Ed.2d 592 *reh'g denied*, 365 U.S. 890, 81 S.Ct. 1024, 6 L.Ed.2d 201 (1961); *Dawson Chemical Co. v. Rohm and Haas Co.*, 448 U.S. 176, 100 S.Ct. 2601, 65 L.Ed.2d 696 *reh'g denied*, 448 U.S. 917, 101 S.Ct. 40, 65 L.Ed.2d 1181 (1980). The suggested noninfringing use must not be "farfetched and illusory," or impractical or merely experimental. *E.g.*, *Spee-Flo Mfg. Corp. v. Gray Co.*, 255 F.Supp. 618, 620 (S.D.Tex.1964), *aff'd.*, 361 F.2d 489 (5th Cir.1966).

[18] The evidence establishes that Defendant's pads are made to be used with a buffing machine, and that they cannot be used efficiently, or at all, except when they are used in that way. Lake Country is aware of that, and advertises them that way. Based on the applicable legal principles, the referenced pads manufactured by Defendant contributorily infringe Claims 17 through 23.

The contributory infringement found applies not only to the "hook and loop" pads discussed above, but also to the other pads of Defendant, with fixed mounting. These are known as "Direct Mount," "DA Threaded," and "Double Sided" pads. These fixed backing pads do not have means for "releasably detaching" them to the buffing unit, because they use fixed backing plates. The absence of that element of Claim 1 calling for means for releasable detachment precludes a finding of infringement of Claims 1 through 6. This element is not required by Claims 17 through 23. With the exception of the drive unit, all of the elements in Claims 17 through 22 are found in Defendant's hook and loop pads and the pads with fixed backing. Defendant is guilty of contributory infringement of those claims. Claim 23 is contributorily infringed by Defendant's White pads.

III. DAMAGES

[19] The patent in suit is not invalid, and Defendant has infringed the patent. It therefore is liable to 3M, the patent owner, for damages "adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs fixed by the court." 35 U.S.C. s. 284. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507, 84 S.Ct. 1526, 1543, 12 L.Ed.2d 457 (1964). The general standards for an award of damages are well known and have been frequently stated. Plaintiff must prove its damages with a reasonable probability. Proof of damages is not an exact science, but an award may not be based on speculation or guess.

A. Lost Profits

To obtain as damages the profits on sales he would have made absent the infringement, i.e., the sales made by the infringer, a patent owner must prove: (1) demand for the patented product, (2) absence of acceptable noninfringing substitutes, (3) his manufacturing and marketing capability to exploit the demand, and (4) the amount of profit he would have made.

In support of its claim for lost profits, 3M submitted reports prepared by Carol A. Ludington, a Certified Public Accountant. Testimony of Ms. Ludington and the information in her reports is not truly "expert" in the sense that expertise requires specialized education, training or experience. She merely assembles basic data provided by the parties, and shows the results which are obtained by performing simple multiplications based upon assumptions provided by her client. The validity of the answers resulting from her arithmetic depends upon the validity of the assumptions provided to her.

[21] Lost profits are presented by 3M as being the product of a multiplication of the number of pads sold by Defendant times the assumed per pad profit margin. Although the number of pads sold by Defendant is established, the other assumptions are sharply disputed. In particular, Defendant challenges the claimed absence of acceptable noninfringing substitutes.FN4 In determining this question, the patent holder must prove that there is a reasonable probability that it would have made the sale but for the infringement. *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 901 (Fed.Cir.), *cert. denied*, 479 U.S. 852, 107 S.Ct. 183, 93 L.Ed.2d 117 (1986); *Bio-Rad Lab.*, 739 F.2d at 616; *Lam, Inc.*, 718 F.2d at 1065. Products which do not have the advantages of the patented product may not be acceptable alternatives to a customer who wants those advantages. *E.g.*, *Kalman v. Berlyn Corp.*, 914 F.2d 1473, 1484 (Fed.Cir.1990).

FN4. The amount of profit per pad is also not conceded, since Plaintiff assumed that laboratory, engineering, selling and administrative costs would be unaffected by the additional effort required to make the assumed sales.

[22] The evidence presented by 3M does not support the conclusion that but for Defendant's infringement, 3M would have sold its pads in place of every sale made by Defendant. These are low price products, selling for about five dollars to unsophisticated customers who will use them for polishing cars and trucks, not for some scientific or technical purpose. There are many non-infringing products which compete and which can accomplish the broad purpose for which these products are purchased. Although each product offers its own advantages, there was no substantiation for the claim that the advantages offered by the patented products were so unique and important that a user would insist upon only that product for use in polishing cars and trucks. The evidence shows that many consumers, aware of the advantages offered by the convoluted foam, nonetheless choose other products based upon customer loyalty, price differential and other considerations. Testimony was offered that the backing pads on some of 3M's products could scar a surface if used improperly, and that some users did not like this possibility. In addition to the above factors, there are also many different suppliers of the products, and many different channels of trade through which these products are sold, unlike the circumstance in *Lam, Inc.* and similar cases.

The evidence simply did not show with reasonable probability that the sales made by Lake Country, at the times in question, would have been made by 3M were it not for the presence of Lake Country in the market. "[I]f the realities of the market are that others would likely have captured sales made by the infringer, despite a difference in the products, it follows that the 'but for' test is not met." *SmithKline Diagnostics, Inc. v. Helena Lab. Corp.*, 926 F.2d 1161, 1166 (Fed.Cir.1991). Since this element of the *Panduit* test is missing, Plaintiff is not entitled to recover its alleged lost profits.

B. Price Erosion

The Ludington Report also contained figures based on certain assumptions as to the possibility of price

erosion. Plaintiff did not seriously urge recovery upon this theory, and there is not an evidentiary foundation upon which damages could be awarded for price erosion, for the reasons summarized above. If Plaintiff was not able to recover in the marketplace the price for which it desired to sell its products, this was the result of competitive pressures from all of the other products competing for the business of those who make use of the buffing pads in the marketplace. The effect of general competition upon price is not compensable.

C. Reasonable Royalty

[23] [24] The reference to a "reasonable royalty" in 35 U.S.C. s. 284 does not limit the Court to such an award. "Although the statute states that the damage award shall not be 'less than a reasonable royalty,' 35 U.S.C. s. 284, the purpose of this alternative is not to provide a simple accounting method, but to set a floor below which the courts are not authorized to go." *Del Mar Avionics, Inc. v. Quinton Instrument Co.*, 836 F.2d 1320, 1326 (Fed.Cir.1987). However, since the computation of damages by other means has not been established, and since Plaintiff has established that there is infringement by Defendant, Plaintiff is entitled to recover damages no less than a reasonable royalty.

When actual damages, e.g., lost profits, cannot be proved, the patent owner is entitled to a reasonable royalty. A reasonable royalty is an amount 'which a person, desiring to manufacture and sell a patented article, as a business proposition, would be willing to pay as a royalty and yet be able to make and sell the patented article, in the market, at a reasonable profit.'

Panduit Corp., 575 F.2d at 1157-58 (citations omitted). The Court is thus left with a consideration of an award based upon the computation of a hypothetical reasonable royalty. This is in many ways unsatisfactory, since little evidence was adduced at trial by either party as to the amount which would be appropriate to establish a reasonable royalty.FN5 However, the difficulty of computing a reasonable royalty is not a basis upon which to deny damages at all.

FN5. Defendant relies upon the testimony of a 3M executive as to an amount paid by 3M for a license of a different product under different circumstances. The evidence has no bearing upon the amount of a reasonable royalty for this product, under these circumstances. Ms. Ludington's Report shows the amount to be paid if the royalty rate were \$1.50 per pad, but no testimony was offered to support this figure either, and the narrative in the report does nothing more than show that if you added the \$1.50 royalty to the Lake Country selling price, this would approximately equal the amount 3M was thinking of charging for its pad when it considered entering the market. This may be a statement of fact, but it is not a rationale for computing a reasonable royalty.

[25] [26] The determination of a reasonable royalty is a question of fact. A comprehensive list of the many factors which the Court may take into account is provided in *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F.Supp. 1116, 1120 (S.D.N.Y.1970), *modified and aff'd*, 446 F.2d 295, *cert. denied*, 404 U.S. 870, 92 S.Ct. 105, 30 L.Ed.2d 114 (1971). Not all of those factors are present in every case. Moreover, in determining the reasonable royalty, the Court must avoid making infringement "a handy means for competitors to impose a 'compulsory license' policy upon every patent owner." *Id.*, 318 F.Supp. at 1158. *See also King Instruments Corp. v. Perego*, 65 F.3d 941, 951 (Fed.Cir.1995).

[27] In this case, the hypothetical license is in the nature of an exclusive license, unrestricted as to territory, since no other competitor has been licensed under the patent, and it is 3M's policy not to license others.

Plaintiff and Defendant are competitors of one another in the same territory and the same line of business, another fact suggesting a higher royalty. The availability of this product enables Lake Country to make sales of other products in its product line. The patent is recently issued, and Defendant was the first to use it. Products sold by 3M under this patent are sold at a good markup. The patented product offers some advantages over the older modes or devices used to achieve the same results, but these are not so marked as to cause the abandonment of the old modes. Lake Country has made substantial use of the invention.

Having all of the above factors in mind, and the margins which 3M has been able to achieve on its pads, it is concluded that a royalty of one dollar (\$1.00) per pad would constitute a reasonable royalty. While this is not a sum which can be reached by any mathematical formula, it takes into account the above factors, and serves to provide the appropriate recompense to 3M, while it avoids allowing Defendant to profit from its infringement. There are various prices for the infringing pads, and the Court has expressly determined that there is no reason to attempt to adjust the amount of the royalty to reflect a percentage of the actual price of each infringing pad. Such an adjustment would suggest a greater sophistication in the determination of the royalty than is justified by the evidence. The evidence shows that the average price of these pads is a little less than \$5.00, so the overall royalty rate is a little more than 20%. The Court concludes that in the hypothetical negotiation (in which 3M is compelled to abandon its corporate policy of declining to license its patents), Lake Country would be unwilling to pay an amount which would result in it being unable to make any profit, but 3M would insist on this royalty rate which is sufficiently high to provide market superiority to the sale of 3M products.

It is undisputed that Defendant sold 284,731 of the pads which the Court has found infringe the patent in suit. Plaintiff thus is entitled to recover damages from Defendant in the sum of \$284,731.

D. Increased Damages

[28] [29] [30] The statute provides that "the court may increase the damages up to three times the amount found or assessed." 35 U.S.C. s. 284. It also provides that "in exceptional cases" the Court "may award reasonable attorney fees to the prevailing party." 35 U.S.C. s. 285. Entitlement to these awards depends in part upon a finding of willful infringement, but not every finding of willfulness requires an award of increased damages. *S.C. Johnson & Son, Inc. v. Carter-Wallace, Inc.*, 781 F.2d 198, 201 (Fed.Cir.1986); *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1579 (Fed.Cir.1986), *cert. denied*, 479 U.S. 1034, 107 S.Ct. 882, 93 L.Ed.2d 836 (1987). Willful infringement of a patent must be established by clear and convincing evidence. *E.I. duPont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1440 (Fed.Cir.) *cert. denied*, 488 U.S. 986, 109 S.Ct. 542, 102 L.Ed.2d 572 (1988). Whether infringement is willful is to be decided based upon the totality of the circumstances. *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 628 (Fed.Cir.), *cert. denied*, 474 U.S. 976, 106 S.Ct. 340, 88 L.Ed.2d 326 (1985).

[31] Once Lake Country had actual notice of the patent in suit, it had an affirmative duty to exercise due care to determine whether or not it was infringing. 3M must prove that Lake Country had no reasonable basis for believing that it had the right to make the products without infringement. One factor to consider is whether Lake Country relied upon legal advice, but this factor is not determinative. *E.g.*, *Avia Group Int'l. v. L.A. Gear Cal., Inc.*, 853 F.2d 1557, 1566 (Fed.Cir.1988); *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1579 (Fed.Cir.1986), *cert. denied*, 479 U.S. 1034, 107 S.Ct. 882, 93 L.Ed.2d 836 (1987).

[32] [33] A failure to produce evidence of reliance on an opinion of counsel can permit the Court to

conclude by inference that either no such opinion was obtained, or that it was adverse. *Fromson v. Western Litho Plate & Supply Co.*, 853 F.2d 1568, 1572-73 (Fed.Cir.1988). It would be improper to draw that inference in this case, however. The notice of infringement came with the service of the Complaint. Defendant promptly retained counsel, and successfully opposed Plaintiff's Motion for Summary Judgment. In the words of the Court in *Paper Converting Machine Co. v. Magna-Graphics Corp.*, 745 F.2d 11 at 20 (Fed.Cir.1984), Defendant mounted a "good faith and substantial challenge to the existence of infringement." Where a party's first notice of alleged infringement is the Complaint itself, it would elevate form over substance to require the Defendant to obtain a legal opinion separate from that of the attorneys it retains to defend it in the litigation, and it would be improper to permit an adverse inference to be drawn from the absence of such an opinion.

We cannot find on this record that the conduct of Defendant was such as to make this an exceptional case, nor that a multiple of the actual damages should be awarded to Plaintiff.

CONCLUSION

U.S. Patent No. 5,007,128 is not invalid. It is infringed by Defendant's foam pad products. Plaintiff has suffered damages in the sum of \$284,731. Plaintiff is entitled to recover its damages from Defendant, and is also entitled to an injunction in the form set forth below.

ORDER FOR JUDGMENT

Upon the foregoing Findings of Fact and Conclusions of Law, IT IS HEREBY ORDERED that the Clerk shall enter Judgment as follows:

1. Plaintiff shall recover from Defendant the sum of Two Hundred Eighty-Four Thousand, Seven Hundred Thirty-One Dollars (\$284,731); and
2. Defendant, its officers, agents, servants, employees and attorneys, and those persons in active concert or participation with them who receive actual notice of this Order or Judgment by personal service or otherwise, are hereby restrained and enjoined from making, using or selling, or causing to be made, used or sold Defendant's hook and loop White and Yellow Waffle foam pads, its White and Yellow Euro Waffle foam pads, its low convolute pad, its double pad, and its comparable pads with fixed mounting known as "Direct Mount," "DA Threaded," and "Double Sided" pads, or any other foam pads which infringe U.S. Patent No. 5,007,128.

LET JUDGMENT BE ENTERED ACCORDINGLY.

D.Minn.,1996.
Minnesota Min. and Mfg. Co. v. Lake Country Mfg., Inc.

Produced by Sans Paper, LLC.