GRAIN PROCESSING V. AMERICAN MAIZE-PRODUCTS: ACCEPTABLE SUBSTITUTE PRODUCTS NOT ON THE MARKET MAY LIMIT OR PRECLUDE LOST PROFIT PATENT DAMAGES

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Charles Darwin once observed, "How odd it is that anyone should not see that all observation must be for or against some view if it is to be of any service."

Patent infringers face many vexing problems. Some face bankruptcy. A few face shareholder suits for alleged mismanagement. Many face sizeable damage awards. Many also face problems in designing new products to stay in their marketplaces while avoiding contempt of court.

One of the most immediate and vexing problems facing patent infringers is limiting the size of any judgment for damages in the damage phase of patent infringement litigation. The modern age of patent litigation is now notorious for unprecedented, large patent infringement damage awards.[1] The jurisprudence of the patent law of damages has been relatively hostile to the infringer since the creation of the Court of Appeals for the Federal Circuit.[2] A significant problem for infringers has been the line of cases building on the four-part test for lost profits damages found in *Panduit Corp. v. Stahlin Brothers Fibre Works, Inc.*, 575 F.2d 1152 (6th Cir. 1978). Some of the cases in this line allowed the patent owner to seemingly bypass proof that consumers demanded the patented product:

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[1]Patent law has experienced at least eight $100 million patent infringement awards recently. One, of $1.2 billion, is subject to a re-trial, but another of $909 million, in *Polaroid v. Kodak*, has driven Kodak from the instant photography market.

[2]For example, lost profits awards were largely unknown to the patent law before the Federal Circuit.

these cases seemingly equated the existence with the infringer's sales with demand for the patented product.[3] Others allowed the patent owner to seemingly bypass proof of the non-existence of acceptable non-infringing alternatives: they appeared to equate the patented product with the relevant market, such that apparently anything non-infringing was unacceptable, and anything acceptable was infringing.[4] Further, evidence was apparently barred of any product that was not on sale from the infringer when infringement began.[5] Finally, in a two-supplier market, defense to a claim of lost profits seemed futile. The Federal Circuit's case law on lost profits has at times apparently been relatively simplistic, to the benefit of patent owners and the detriment of infringers.

Opinions have differed on the merit of this situation. Some commentators have found in some decisions authored by Judge Markey an overtone of the caustic toward patent infringers. Others thought damage analyses could be more detailed and thoughtful. In the experience of the authors, some patent trial advocates became enamored of language that patent owners are "entitled" to damages once they prove infringement of a valid patent. They have become blind and misled courts.

Signs have been appearing recently that a new age of increased complexity in analysis of lost profit claims is imminent. In recent briefs, relying on recent case law, the authors have been able to write that patent owners are "entitled" to nothing. In contrast, according to this advocacy, they may

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[3]*E.g., Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549 (Fed. Cir. 1984).

[4]*See e.g., Kaufman Co. v. Lantech, Inc.,* 926 F.2d 1136 (Fed.cir. 1991).

[5]*See id.*

recover only the damages they prove. A general rule in patent law is that lost profits are recoverable if demonstrated by adequate evidence in a trial record. *E.g., BIC Leisure Prods., Inc. v. Windsurfing Int'l Inc.*, 1 F.3d 1214 (Fed.Cir. 1993) (award of lost profits reversed). Arguably, even reasonable royalty damages are not recoverable unless proved. District Judge Will in the Northern District of Illinois stated the proposition in pithy words:

> The patent statute provides for damages "in no event less than a reasonable royalty." 35 U.S.C. §284. But that's assuming that damages have been proved up. Neither the patent statute nor the rules of evidence contemplate judgments or jury verdicts based on conjecture.

National Presto Industries Inc. v. Black & Decker (U.S.) Inc., 760 F.Supp. 699 (N.D.Il. 1991). Judge Will's words are supported by *Devex Corp. v. General Motors Corp.*, 667 F.2d 347 (3d Cir. 1981), which affirmed an award of zero damages for lack of evidence, saying:

> The statute requires the award of a reasonable royalty, but to argue that this requirement exists even in the absence of any evidence from which a court may derive a reasonable royalty goes beyond the possible meaning of the statute.

The authors have been able to refer to *Devex* as favorably cited by the Federal Circuit in *Lindemann Maschinenfabrik v. American Hoist & Derrick Co.*, 895 F.2d 1403, 1407 (Fed. Cir. 1990).

Patent trial advocates have also been able to argue that neither the four part *Panduit* test nor the two-supplier market test are appropriate for use without proof in the trial evidence that is consistent with their inherent underlying assumptions: that the products were interchangeable in the marketplace in terms of price, product characteristics, and marketing channels. In recent cases, the authors have been able to advocate that in the absence of proof in the trial record that the products were interchangeable, awarding lost profits would be reversible error. *BIC Leisure Prods., Inc. v. Windsurfing Int'l Inc.*, 1 F.3d 1214 (Fed.Cir. 1993) is the source of this positioning, and *BIC Leisure* said this:

> Properly applied, the *Panduit* test is an acceptable, though not an exclusive, test for determining "but for" causation. *State Indus.,* 883 F.2d at 1577. The *Panduit* test, however, operates under an inherent assumption . . . that the patent owner and the infringer sell products sufficiently similar to compete against each other in the same market segment. If the patentee's and the infringer's products are not substitutes in a competitive market, *Panduit's* first two factors do not meet the "but for" test -- a prerequisite for lost profits.
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> The first *Panduit* factor -- demand for the patented product -- presupposes that demand for the infringer's and patent owner's products is interchangeable. Under this assumption, evidence of sales of the infringing product may suffice to show Panduit's first factor, "demand for the patented product." *E.g., Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549, 552, 222 USPQ 4, 6 (Fed. Cir. 1984). This analysis assumes that the patent owner and the infringer sell substantially the same product. In *Gyromat*, for instance, the patent owner's and the infringer's products were similar in price and product characteristics. *Gyromat*, 735 F.2d at 550-51, 553-54. *If the products are not sufficiently similar to compete in the same market for the same customers, the infringer's customers would not necessarily transfer their*

> *demand to the patent owner's product in the absence of the infringer's product. In such circumstances . . . the first Panduit factor does not operate to satisfy the elemental "but for" test.*
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> Similarly, the second *Panduit* factor -- absence of acceptable, noninfringing alternatives -- presupposes that the patentee and the infringer sell substantially similar products in the same market. *To be acceptable to the infringer's customers in an elastic market, the alleged alternative "must not have a disparately higher price than or possess characteristics significantly different from the patented product."* *Kaufman Co. v. Lantech, Inc.*, 926 F.2d 1136, 1142, 17 USPQ2d 1828, 1832 (Fed. Cir. 1991) (citing *Gyromat*, 735 F.2d at 553).

Another sign along the road to more complexity in analysis of lost profit damage claims has been Federal Circuit Judge Rader's statements in a concurring opinion on a collateral estoppel issue, in *Comair Rotron Inc. v. Nippon Densan Corp.,* 33 USPQ2d 1929 (Fed.Cir. 1995):

> [B]efore applying the *Panduit* test, a court must determine whether the accused device competes with the patentee's product in the marketplace. If not, the court should not employ the *Panduit* test.
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> The first *Panduit* factor -- demand for the patented product -- presupposes that demand for the accused and patented products is interchangeable. However, if the products are not sufficiently similar -- in terms of price, product characteristics, and marketing channels -- to compete for the same customers, the infringer's customers will not necessarily transfer their demand to the patentee's product in the absence of

the infringing product. See *BIC*, 1 F.3d at 1218-19.

From such cases as *BIC Leisure* and *Comair Rotron*, it has not been unreasonable to argue that a court's determination of whether there is competition in the marketplace, to determine whether the accused product and the patentee's product are interchangeable, requires a fact-intensive economic inquiry.

Now, new law has been added to the four-part *Panduit* case and the two-supplier market test. The latest word of the Federal Circuit on the depth of analysis required for lost profit damage awards is *Grain Processing Corp. v. American Maize-Products Co.,* _ F.3d _ (Fed. Cir. 1999). As will be demonstrated, the forecasted new age of complexity in lost profit damages analyses is now arriving. At a minimum, *Grain Processing* represents a significant clarification of the law of patent damages.

Grain Processing was an appeal from the Northern District of Indiana and is a panel decision written by Judge Rader with Judge Bryson and Senior Judge Friedman on the panel. The case has a complex procedural history, but the background reinforces the strength of the opinion. The essential facts are that the patented process involved use of a certain enzyme in a reaction. A noninfringing process (Process IV) was adopted by the infringer twelve years after infringement began. That noninfringing process used a different enzyme. In an earlier appeal the trial court denied lost profits because it said the patent holder could not establish causation for lost profits. The District Court reasoned that the infringer "could have produced" a substitute product with Process IV by simply using the other enzyme. On that earlier appeal, that holding was reversed and the case remanded. The Federal Circuit said that the mere fact of switching to a noninfringing product year after infringement began did not, in and of itself, establish the presence of a noninfringing substitute during the period of infringement.

On remand the District Court again denied lost profits. The District Court found that the noninfringing process (Process IV) was available throughout the period of infringement. This finding of fact was not based merely on the fact that the infringer switched, but on several subsidiary factual findings. The District Court found that American Maize could obtain all the materials needed for Process IV, before the accounting period began. The effects of the various enzymes were well known in the field at the time. Since American Maize could have switched to Process IV at any time, because it was available, American Maize had all of the necessary equipment, know-how, and experience to implement Process IV whenever it chose to do so during the time of infringement.

> [T]he district court stated the dispositive question as "whether there is economically significant demand for a product having all . . . attributes [of the claim in suit]," i.e., whether consumers demand every claimed feature. Id. The court found no such demand in this case because "[t]wo of the essential elements of the claim – that the starch be 'waxy' and that the 'descriptive ratio [be] greater than about 2' – are irrelevant to consumers." Id. The court concluded that Grain Processing "does not have a patent on D.E. 10 maltodextrins, the economically significant product, and therefore cannot recover lost profits damages on account of [American Maize's] infringement." Id. at 1238.

The District Court adopted the patent owner's initial premise that in a two-supplier market there should be an inference that satisfies the initial burden of proving absence of an acceptable noninfringing substitute. However, the court went on to make specific factual findings to overcome that inference. This is a step that, in the past, many lower courts have failed to take because decisions of the Federal Circuit have not made clear that such a step was available.

Grain Processing makes clear that the true test is determining what the patent holder would have made had the infringer not infringed. That is the standard set forth by the Supreme Court long ago in *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507, 84 S.Ct. 1526, 1543, 141 U.S.P.Q. 681, 694 (1964)(plurality opinion). This process of determining what would have happened but for the infringement is an effort to reconstruct the market, which, by definition, requires consideration of a hypothetical. The Federal Circuit labeled this as a "market reconstruction theory," and, in doing so, apparently for the first time pointed out that such an exercise is two-sided. That is, it involves aspects that may cut *against* the patentee as well as *for* the patentee. The Federal Circuit said:

> The "but for" inquiry requires a reconstruction of the market, as it would have developed absent the infringing product, . . . " <u>See</u> <u>Grain Processing VIII</u>, 979 F. Supp. at 1236.

Reconstructing the market, by definition a hypothetical enterprise, requires the patentee to project economic results that did not occur. To prevent the hypothetical from lapsing into pure speculation, this court requires sound economic proof of the nature of the market and likely outcomes with infringement factored out of the economic picture. . . . Within this framework, trial courts, with this court's approval, consistently permit patentees to present market reconstruction theories showing all of the ways in which they would have been better off in the "but for world," and accordingly to recover lost profits in a wide variety of forms. . . .

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> By the same token, a fair and accurate reconstruction of the "but for" market also must take into account, where relevant, alternative actions the infringer foreseeably would have undertaken had he not infringed. Without the infringing product, a rational would-be infringer is likely to offer an acceptable noninfringing alternative, if available, to compete with the patent owner rather than leave the market altogether. The competitor in the "but for" marketplace is hardly likely to surrender its complete market share when faced with a patent, if it can compete in some other lawful manner. . . . Thus, an accurate reconstruction of the hypothetical "but for" market takes into account any alternatives available to the infringer. See Aro, 377 U.S. at 507; Yale Lock, 117 U.S. at 552-53; see also ROBERT P. MERGES, PATENT LAW 1080 (2d Ed. 1997) ("[T]he infringer should have a chance to argue what he or she might have done in the absence of infringement. Obviously, if the defendant is not permitted to present evidence of this ilk, the analysis is quite skewed: only the patentee's 'best case' scenario is presented, rather than a more realistic scenario.")

Thus, the Federal Circuit resolved that a fair and accurate reconstruction of the "but for" market must take into account, where relevant, alternative actions the infringer foreseeably would have undertaken had he not infringed, because without the infringing product, a rational would-be infringer is likely to offer an acceptable noninfringing alternative, if available, to compete with the patent owner, rather than leave the market altogether.

Another question answered by the Federal Circuit, in definitive terms, has to do with the time period of availability of the noninfringing alternative. The Court made plain that the critical time period for determining the availability of an alternative is the period for which the patent owner claims damages, sometimes referred to as the "accounting period." It pointed out that merely switching to a noninfringing substitute after the accounting period does not, in and of itself, show the availability of a noninfringing alternative during the accounting period. Thus, where an alleged alternative is not on the market during the accounting period, a trial court *may* reasonably infer that the alternative was not available as a noninfringing substitute during that time. However, the accused infringer can rebut that inference. "The accused infringer then has the burden to overcome this inference by showing that the substitute was available during the accounting period," said the Court. In the case at hand the District Court did not base its finding that the noninfringing substitute process was available merely on speculation or possibilities. Rather it made concrete factual findings that supported its viewpoint.

The *Grain Processing* case stands for the proposition that the Federal Circuit will require "reliable economic proof" based on marketplace analysis to establish what would have happened "but for" the infringement. The prior trend of cases that seemed to strongly support awards of lost profits without detailed analysis is repudiated by this decision. Reconstructing the marketplace as a hypothetical world may include reconstructing the infringer's actions "but for" infringement, as well as reconstructing effects on the patent owner.

In the final analysis, the methodology for the computation of damages lies within the discretion of the trial court, *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1576-77 (Fed. Cir. 1989), *cert. denied*, 493 U.S. 1022 (1990), but the burden of proof rests with the patent owner, *Oiness v. Walgreen Co.,* 39 USPQ2d 1304 (Fed.Cir. 1996). Proof of actual damages must include proof of a causal connection between the infringement and the alleged damages. *Id.* In exercising its discretion in deciding whether to award lost profits, a court must determine whether a patent owner has established, as he must, "a factual basis for causation, *i.e*. that but for the infringer's improper acts, he would have made greater sales," and a "reasonable approximation of the amount of lost profits." Chisum, §20.03[1], at 20-72. *Grain Processing* requires that where the infringer provides reliable economic proof of the availability of substitute non-infringing products, an acceptable substitute not on the market during the infringement may nonetheless become part of the lost profits analysis. Such a substitute may limit or even preclude lost profit damages.