

Commentary

**ALTERNATIVES TO PATENT LICENSES: REAL-WORLD
CONSIDERATIONS OF POTENTIAL LICENSEES ARE --
AND SHOULD BE -- A PART OF THE COURTS'
DETERMINATIONS OF REASONABLE ROYALTY 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." [n.2]

The following are the observations of the author, for a view, in an effort to be of service.

The law of patent damages provides that a patent owner may recover a reasonable royalty as his damages. [n.3] Determination of a reasonable royalty requires a court to resolve what a hypothetical willing patent owner and willing licensee would have negotiated as a royalty if they had negotiated at the time infringement began. In *State Industries, Inc. v. Mor-Flo Industries, Inc.*, [n.4] the court held that "the determination of a reasonable royalty ... is based ... on what a willing licensor and licensee would bargain for at hypothetical negotiations on the date infringement started." [n.5]

It is part of the lore of patent damages that a court should weigh all considerations which would have been weighed by the willing patent owner and willing licensee, in deciding what a reasonable royalty should be. [n.6] It is also part of the lore that among other considerations, the court should weigh "the nature of the patented invention" and "evidence probative of the value of the use of the invention by the infringer." [n.7]

In the real world, negotiators for those who might take patent licenses know that "the nature of the patented invention" is determined, in part, by what the patented invention is not. Real-world negotiators also know that "the value of use of the invention" is determined, in part, by what a potential licensee may make, use and sell without a license (and for how much). Thus, in the real world, negotiators for potential patent licensees explore the limits of patented inventions, and the alternatives to patent licenses. [n.8]

Negotiators explore the limits and the alternatives because the limits and alternatives illuminate an appropriate royalty for a patent license. The matter has been put succinctly by a commentator, George E. Frost:

"[t]he dollar disadvantage of going to the most practical noninfringing alternative in lieu of the patent product ... places a ceiling on what any rational negotiator would ... pay." [n.9]

The commentary by George E. Frost that the dollar disadvantage of the most practical alternative "places an absolute ceiling" on a license royalty is particularly persuasive. Mr. Frost was Patent Counsel for General Motors Corporation for seventeen years, from 1966 to 1983. He negotiated over 200 patent licenses. While Mr. Frost has been succinct, Mr. Frost has also had occasion to state the views he gained from his experience most fully. Mr. Frost has been an expert witness, and on one occasion, in particular, he was a trial witness for the Ford Motor Company. [n.10] Beginning his testimony, Mr. Frost was able to discern from his experiences three distinct facets of patent license negotiation:

Q. Mr. Frost,... explain... based on your experience with over 200 [patent] licenses... in your 17 years, how you went about the [patent license] negotiation process?

A. Yes,... First, there is what I call investigation, finding out the facts. In these situations you always start with a question of a license or possible license. You need to know what it is that someone is trying to license. [You] need to know what your engineers and production people... would like to do. [You] need to know the pros and cons of the thing they would like to do in relation to other things [you] could do without access to the patent. [You] need to find out what the patent itself is all about. That includes getting the record of the patent in the United States Patent Office. Generally, we need to make a patent search to find out what prior art is available and do those things. That's the process of investigation.

Q. Is there a second step?

A. Yes, sir, really somewhat concurrent, what I call communication.

When we have a question of a license, there's always two parties. There's the party that owns the patent and who would grant a license. And then there is the party who would take the license.

Now, we need to talk to each other. We need to find out things from them. They need to find out things from us. There is a great need for communication and that goes on throughout the period during which a license is under consideration.

Q. Is there a third step?

A. The third step is what I would call negotiation. That's sitting down at the table, finding out what the other fellow thinks he should get, trying to come together on a common idea of really what's involved. And I might add that once it's identified what the pros and cons are, people have a way of getting together.

After discerning investigation, communication and actual negotiation as three phases of patent license negotiation, Mr. Frost focused on the purpose of the first phase:

Q. I'd like to take these one at a time, Mr. Frost. Let's start with the investigation effort. What is the core purpose of the investigation effort?

A. The core purpose of the investigation effort is to find out what I would call the increment of value in operating under the proposed license.

Q. What do you mean by increment of value?

A. Well, you always have choices. One can take a license and pay a royalty and make what it is, whatever it may be that's within the patent. That's one choice.

Then there's another choice of simply saying, I'm going to do the same thing another way. And from my experience there is always not only one but various other ways to do it. So what we need to do in this investigation is to assess the pros and cons and wind up with this thing I like to call the increment of value.

Mr. Frost then continued his testimony by defining his concept of an "increment of value" in monetary terms:

Q. Does the increment of value have any role in setting what the royalty negotiation range is going to be?

A. Oh, yes ...

Now, what we're concerned with in this investigation is identifying what the difference is between the cost for the patent product and the usually greater cost for the alternative. And we just need to know what that difference is in terms of dollars, or pennies, or whatever it may be.

Finally, Mr. Frost explained why the "increment of value" had importance:

Q. Why [do we need to know the difference between the cost for the patent product and the cost for the alternative] Mr. Frost?

A. Because that sets the limit, absolute limit, on what is a possible royalty. And we need to be sure that we don't get into royalties that are more than what the alternative costs, because there's no sense at all to pay more to use the patent including the royalty, you see, than it would cost to use the alternative. That's the basic principle.

Q. Let me just ask you to make sure I'm clear. So, if you add a royalty because the patentee asked for a royalty, that if the cost of the product that is within the patent plus the royalty became higher than the cost of the alternative, are you saying that then would become undesirable to the potential licensee?

A. Yes, but not only undesirable, because once the patent plus the royalty exceeds the alternative, we know we don't have any kind of an enduring or useful agreement. [n.11]

As illustrated by the commentary and testimony of Mr. Frost, real-world patent license negotiators focus upon and analyze the increment of value which a patent license provides a potential licensee. The increment of value is determined by comparing the licensed invention to alternatives to a license available to the real-world potential licensee.

However, despite the views of real-world patent license negotiators, fast reading of two prominent patent decisions might lead a reader to conclude that as a matter of law, alternatives to infringement available to a hypothetical patent licensee should have little or no impact on reasonable royalty patent damages.

In *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, [n.12] the Federal Circuit overturned a district court judgment of a reasonable royalty of 2 1/2 %. In a strongly worded opinion, Judge Markey [n.13] stated that:

the setting of a reasonable royalty [as patent damages] after [patent] infringement cannot be treated, as it was here, as the equivalent of ordinary royalty negotiations among truly "willing" patent owners and licensees. That view would constitute a pretense that the infringement never happened. It would also make an election to infringe a handy means for competitors to impose a "compulsory license" policy upon every patent owner.

Except for the limited risk that the patent owner, over years of litigation, might meet the heavy burden of proving the four elements required for recovery of lost profits, the infringer would have nothing to lose, and everything to gain if he could count on paying only the normal, routine royalty non-infringers might have paid. As said by this court in another context, the infringer would be in a "heads-I-win, tails-you-lose" position. ...

On the date a patent issues, a competitor which made no investment in research and development of the invention, has four options: (1) it can make and sell a non-infringing substitute product, and refrain from making, using, or selling a product incorporating the patented invention; (2) it can make and sell the patented product, if the patent owner be willing, negotiating a license and paying a reasonable (negotiated) royalty; (3) it can simply take the invention, running the risk that litigation will ensue and that the patent will be found valid and infringed, or (4) it can take a license under option (2) and thereafter repudiate its contract, challenging the validity of the patent. [Footnote omitted] Determination of a reasonable royalty, after election of option (3), cannot, without injustice, be treated as though the infringer had elected option (2) in the first place. [n.14]

The case was reversed and remanded to the district court.

In the second patent case, *TWM Mfg. Co. v. Dura Corp.* [n.15] the court affirmed a 30% royalty as reasonable, stating:

The special master, citing *Georgia-Pacific* and *Tektronix*, used the so-called "analytical approach," in which she subtracted the infringer's usual or acceptable net profit from its anticipated net profit realized from sales of infringing devices.

Relying principally on a memorandum written by "Dura's top management" before the initial infringement, the special master found that Dura projected a gross profit averaging 52.7% from its infringing sales. From that figure, she subtracted overhead expenses to get an anticipated net profit in the range of 37% to 42%. Subtracting the industry standard net profit of 6.56% and 12.5% from that anticipated net profit range, she arrived at a 30% reasonable royalty.

Dura says the special master erred as a matter of law in failing to analyze all factors delineated in *Georgia-Pacific*. Had she done so, says Dura, she would have found the "analytical approach" inapplicable. Unlike the situation in *Georgia-Pacific*, Dura argues, Turner had an unproven product he was desperate to license to a company like Dura with marketing and manufacturing expertise, and there was a market leader with an established non-infringing product. Dura contends that it was error for the special master to rely on Dura's estimate of future profit in a purely speculative memorandum. Having reevaluated the *Georgia-Pacific* factors, Dura strenuously argues that the 30% royalty was "exorbitant" and "totally at odds with the result indicated by the other factors."

Dura has cited nothing which would limit the district court's discretion in choosing the analytical approach to determine a reasonable royalty. Section 284 does not mandate how the district court must compute that figure, only that the figure compensate for the infringement.

Moreover, Dura disregards the effect of the special master's specific rejection of many of the "facts" Dura urges on appeal. For example, Dura insists that there existed non-infringing alternatives. However, the special master found that the absence of such alternatives was indicated by Dura's: (1) failure to design its own device, despite the alleged availability of other suspensions now characterized by Dura as "acceptable"; (2) election to infringe, despite having expended only minimal sums when notified of infringement; (3) willful infringement; (4) failure to successfully market other allegedly "acceptable" designs; (5) violation of the 1981 injunction, and (6) withdrawal from the business after enforcement of the injunction.

The special master's notation that the Turner invention's immediate commercial success, its satisfaction of a long-felt need, and the absence of a competing suspension possessing all its beneficial characteristics, were factors tending to support a 30% royalty, is supported in the record. [n.16]

Panduit can be read to say that noninfringing alternatives are "of limited influence." [n.17] Dura can be read to be consistent. A short leap ahead is the impression that noninfringing alternatives have never had any significant impact on reasonable royalty patent damages.

Both an impression that the patent jurisprudence uniformly denigrates noninfringing alternatives, and an impression that noninfringing alternatives have never had impact, would be mistaken impressions. Courts have consistently used an infringer's proven access to noninfringing alternative designs to fix what might otherwise be a higher reasonable royalty. The Federal Circuit has been a part of that consistency.

In *Columbia Wire Co. v. Kokomo Steel & Wire Co.*, as a first example, [n.18] a decree of nominal damages, for infringement of a patent on a machine for making barbed wire, was affirmed because of noninfringing alternatives:

[W]hen the art... include[s]... noninfringing machines, available to manufacturers... the patentee cannot avoid their competitive effect. [T]he only actual advantage of the patented machine is its superiority, if any, over these... machines that are not dominated by the patent. If... one should choose to enter upon the manufacture of barbed wire, he could take the [non-patented] machines without giving the patentee any cause of action. If, however, he should adopt a machine that finally was adjudged to be an infringement, all that he would actually gain by the infringement would be the excess in effectiveness of the infringing machine over the... available, competitive machines. To hold him accountable for more,... would attribute to the patent a virtue it did not really have... would penalize the infringer simply because he was an infringer, and would mulct him in vindictive damages. [n.19]

The impact of noninfringing alternatives has continued from *Columbia Wire* through the time of the creation of the Federal Circuit. As an example, see *Hughes Tool Co. v. G. W.*

Murphy Industries, Inc., [n.20] discussed *infra*. Noninfringing alternatives have continued to be correctly considered by courts through the present day. [n.21]

The impact of noninfringing alternatives has always been the same, whether the alternatives have been equally advantageous alternatives, or less advantageous alternatives. In *Hughes Tool Co. v. G. W. Murphy Industries, Inc.*, the infringing product was considered to be "superior to" a device made in accordance with the noninfringing alternative design. The appellate court affirmed the district court's grant of a reasonable royalty, stating that when determining a reasonable royalty "[t]he existence of a noninfringing alternative reduces the value of the patent and thus the damages from infringement... [because] the availability of the [noninfringing alternative] would have enhanced the defendant's bargaining position." [n.22]

As expressed by the Northern District of Illinois, in *Ellipse Corp. v. Ford Motor Co.*, [n.23] " the patent owner may recover only for the difference between the patented product and such other products as the infringer could have used had he known he infringed") (emphasis added). [n.24]

In *State Industries, Inc. v. Mor-Flo Industries, Inc.*, [n.25] the Federal Circuit affirmed use of an infringer's access to less advantageous noninfringing alternative designs in the determination of a reasonable royalty. The patent in suit concerned foam-insulated hot water heaters. [n.26] Fiberglass-insulated hot water heaters were a less advantageous alternative. The district court decided upon a lower reasonable royalty than the plaintiff sought. This was partially due to the fact that the less advantageous, noninfringing alternative of fiberglass-insulated heaters was available to the infringer. [n.27] The patent owner, State Industries, appealed the reasonable royalty award as insufficient. State Industries asserted that since fiberglass-insulated heaters were less advantageous, they should not have been considered by the district court. The Federal Circuit disagreed, and affirmed the district court's decision. [n.28]

In *Smithkline Diagnostics, Inc. v. Helena Laboratories Corp.*, the district court expressed a number of factors which entered into its assessment of the royalty which would result from hypothetical negotiations between a willing licensor and a willing licensee. One of these factors was described in the district court's findings of fact as follows:

In arriving at a determination of a reasonable royalty, the Court may consider acceptable, non-infringing substitutes including, but not limited to, Helena's lead acetate slides as well as Proper's non-infringing Seracult slide, to which Helena lost several major amounts of business in the discount market. A willing licensee, in a hypothetical negotiation with a willing licensor, would be less inclined to agree to a high royalty because of the availability of such non-infringing alternatives, and in such negotiations, both licensor and licensee would realize that if the royalty rate was too high, Helena, as licensee, could continue to market slides with only external monitors, or with only a built-in positive monitor, in direct competition with Proper or Ames, in the discount market niche. [n.29]

The district court continued to stress the importance of the availability of acceptable noninfringing substitutes and stated, in its conclusions of law, that "[t]he existence of acceptable, noninfringing substitutes reduces the value of the patent and thus reduces the damages from infringement." [n.30] In *Smithkline Diagnostics, Inc. v. Helena Laboratories Corp.*, the Federal Circuit affirmed the district court's award. The Court's language is in marked contrast to the more expressive language of *Panduit*:

SKD argues in effect that the noninfringing products lacked one or more features of the patented invention and, therefore, would not be deemed part of the market. However, by definition, noninfringing products do not represent an embodiment of the invention. Thus, the district court properly considered the realities of the marketplace in connection with an assertion that "but for" the infringing activities, the patent owner would have made the sales. [n.31]

A return to the actual language of *Panduit* explains the marked contrast. *Panduit* stated that the facts of the case left "no doubt that the patented improvement created a substantial customer preference. A product lacking the advantages of that patent can hardly be termed a substitute 'acceptable' to the customer who wants those advantages." [n.32]

Panduit also stated that "the 'acceptable substitute' element ... is to be considered," and then said that "the acceptable substitute element ... must be viewed of limited influence where the infringer knowingly made and sold the patented product for years while ignoring the 'substitute.'" [n.33]

Panduit is not in contrast to *Smithkline Diagnostics*. Instead, the reasoning of the two cases is harmonious. Where the patent owner has proven a substantial customer preference for the full advantages of the invention, and the infringer has ignored substitutes while knowingly making and selling the patented invention, substitutes are, sensibly, of limited influence. However, in the contrasting more ordinary case, alternatives may strongly influence the outcome of the hypothetical negotiation.

This harmonization can be found in *Slimfold Mfg. Co., Inc. v. Kinkead Industries, Inc.* [n.34] In *Slimfold*, the Federal Circuit affirmed the district court's award of a three quarters of one percent reasonable royalty. [n.35] Although the Federal Circuit discussed noninfringing substitutes in the context of denying damages based upon lost profits, the Federal Circuit affirmed an award which considered less advantageous alternatives. The Court explained and distinguished *TWM Mfg. Co. v. Dura Corp.*:

With respect to the availability of acceptable non-infringing substitutes, the district court found that:

[I]t is not established at all that the alleged infringer would not have made a substantial portion or the same number of sales had it continued with its old hardware or with the hardware utilized by any of the other companies.

Slimfold contends that the old hardware used by *Kinkead* and other companies cannot be acceptable non-infringing alternatives because they do not have the advantages of the new hardware covered by the *Ford* patent. That proposition may be correct if it is shown that consumers specifically want a device with those advantages. See *TWM Mfg. Co. v.*

Dura Corp., 789 F.2d 895, 901, 229 U.S.P.Q. 525, 529 (Fed. Cir.) cert. denied, 479 U.S. 852, 107 S.Ct. 183, 93 L.Ed.2d 117 (1986). However, ... Slimfold [has] failed to show that buyers of bifold metal doors specifically want a door having the advantages of the Ford patent ... [n.36]

Conclusion

Courts should continue to weigh access to noninfringing alternative designs when determining a reasonable royalty. Even in *Panduit*, the court expressed that "the 'acceptable substitute' element ... is to be considered." Courts should continue to weigh access to noninfringing alternative designs if the noninfringing alternative designs are considered equally advantageous, or less advantageous, than the infringing design. Presented with a record with appropriate testimony, State Industries affirmed reasoning that "potential licensees would have stayed with lesser alternatives promising some profit, rather than risk losing money by signing on" at the high rate State hoped for. Noninfringing alternative designs are considered, in that they probe the nature of the invention - Georgia-Pacific factor 10 - and the value of use of the invention - Georgia-Pacific factor 11 - and they place a ceiling on the royalty rate that a willing licensor and willing licensee would agree to during a hypothetical negotiation.

[n.1] *Allegretti & Witcoff, Ltd.*, Chicago and Boston.

[n.2] As quoted in *Smithsonian Magazine*, April 1992 at 13.

[n.3] 35 U.S.C. § 284 (1992).

[n.4] 883 F.2d 1573, 12 U.S.P.Q.2d 1026 (Fed. Cir. 1989), reh'g denied U.S. App. LEXIS 14711, reh'g denied, en banc, 1989 U.S. App. LEXIS 16954, (Fed. Cir. 1989), cert. denied, 493 U.S. 1022 (1990).

[n.5] *Id.* at 1580, 12 U.S.P.Q.2d at 1031.

[n.6] *Georgia Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120-1121, 166 U.S.P.Q. 235, 238 (S.D.N.Y. 1970), mod. 446 F.2d 295, 170 U.S.P.Q. 369 (2d Cir. 1971), cert. denied 404 U.S. 870 (1971).

The Federal Circuit has approved of *Georgia Pacific Corp.* See, for example, *Smithkline Diagnostics, Inc. v. Helena Laboratories Corp.*, 926 F.2d 1161, 1168, 17 U.S.P.Q.2d 1922,1928 (Fed. Cir. 1991), which states that "[t]he district court correctly

considered the factors enumerated in ... Georgia Pacific ... in finding what it considered a reasonable royalty" (emphasis added).

[n.7] Id. at 1120, 166 U.S.P.Q. 238.

[n.8] Because licensee negotiators do so, licensor negotiators do also.

[n.9] George E. Frost, Accountings, Address Before The John Marshall Conference on Intellectual Property (February 17-18, 1983), in The John Marshall Conference on Intellectual Property, (1983) at 107, 113-114.

[n.10] In *Kearns v. Ford Motor Company*, 726 F.Supp. 159 (E.D. Mich. 1989).

[n.11] Trial transcript of July 6, 1990 at 1093-1097. Mr. Frost also expressed a view that alternatives beyond those identical to the patented invention have real world significance.

[n.12] 575 F.2d 1152, 197 U.S.P.Q. 726 (6th Cir. 1978).

[n.13] Then Chief Judge, United States Court of Customs and Patent Appeals, later Chief Judge, United States Court of Appeals for the Federal Circuit, presently Dean, John Marshall Law School, Chicago, Illinois.

[n.14] 575 F.2d at 1158-1159, 197 U.S.P.Q. at 731-732.

[n.15] 789 F.2d 895, 229 U.S.P.Q. 525 (Fed. Cir. 1986).

[n.16] Id. at 899-900, 229 U.S.P.Q. at 527.

[n.17] 575 F.2d at 1162 n.9, 197 U.S.P.Q. at 734 n.9.

[n.18] 194 F. 108 (7th Cir. 1911).

[n.19] Id. at 110.

[n.20] 491 F.2d 923, 931, 180 U.S.P.Q. 353, 358 (5th Cir. 1973).

[n.21] See, e.g., *Smithkline Diagnostics, Inc. v. Helena Laboratories Corp.*, discussed *infra*, 926 F.2d 1161, 1168, 17 U.S.P.Q.2d 1922, 1928 (Fed. Cir. 1991).

[n.22] 491 F.2d at 930-931, 180 U.S.P.Q. at 358.

[n.23] 461 F. Supp. 1354, 201 U.S.P.Q. 455 (N.D. Ill. 1978), *aff'd without op.*, 614 F.2d 775 (7th Cir. 1979), *cert. denied* 446 U.S. 939 (1980).

See also *Union Carbide Corporation v. Graver Tank & Mfg. Co.*, 282 F.2d 653, 672, 127 U.S.P.Q. 3 (7th Cir. 1960), *cert. denied*, 365 U.S. 812 (1961).

[n.24] *Id.* at 1379-1380, 201 U.S.P.Q. at 475.

[n.25] 883 F.2d 1573, 12 U.S.P.Q.2d 1026 (Fed. Cir. 1989), *reh. den.*, 1989 U.S. App. LEXIS 14711, *reh'g denied, en banc*, 1989 U.S. App. LEXIS 16954, (Fed. Cir. 1989), *cert. denied*, 493 U.S. 1022 (1990).

[n.26] 883 F.2d at 1575, 12 U.S.P.Q.2d at 1027.

[n.27] See *State Industries, Inc. v. Mor-Flo Industries, Inc.*, 8 U.S.P.Q.2d 1971, 1981 (E.D. Tenn. 1988).

[n.28] 883 F.2d at 1581, 12 U.S.P.Q.2d at 1032.

[n.29] 12 U.S.P.Q.2d 1375, 1379 (E.D. Tex. 1989) *aff'd* 926 F.2d 1161, 17 U.S.P.Q.2d 1922 (Fed. Cir. 1991).

[n.30] 12 U.S.P.Q.2d at 1381 (*emphasis added*).

[n.31] 926 F.2d at 1168, 17 U.S.P.Q.2d at 1928.

[n.32] 575 F.2d at 1162, 197 U.S.P.Q. at 734.

[n.33] 575 F.2d at 1162 fn. 9, 197 U.S.P.Q. at 734 n.9 (emphasis added).

[n.34] 932 F.2d 1453, 18 U.S.P.Q.2d 1842 (Fed. Cir. 1991), reh'g denied, 1991 U.S. App. LEXIS 12237.

[n.35] 932 F.2d at 1458-1459, 18 U.S.P.Q.2d at 1847.

[n.36] Id. at 1458, 17 U.S.P.Q.2d at 1846.

A complete quotation of the last sentence is:

However, not only has Slimfold failed to show that buyers of bifold metal doors specifically want a door having the advantages of the Ford patent, but the fact (found by the district court) that neither Slimfold's nor Kinkead's market share changed significantly after introduction of the "new" doors is very probative of the contrary conclusion.