Litigation Backgrounder For Licensing

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Prudent licensing executives should be aware of potential disputes over licensing practices and valuation of technology

A knowledge of the workings of the licensing process, including the negotiation of technology transfer agreements, is being effectively utilized in a growing variety of legal proceedings. This article describes several actual situations in which this has occurred, outlines the legal criteria that were relevant in these cases, and suggests approaches that can contribute to reasonable results.

Expertise in licensing is called upon in two basic categories of disputes. One involves the valuation of technology, employing general principles of technology transfer, as well as a first-hand knowledge of the industry or particular business concerned. The other relates to traditional behavioral practices in a licensing environment, and includes interpretations or evaluations of the conduct of parties, both within the context of specific agreements and as a matter of business strategy. Situations can also arise in which a combination of these considerations is taken into account in developing an approach to testimony.

The role of an expert witness in U.S. intellectual property litigation should not be approached lightly or mechanically. The statutory criteria that have been adopted to fix damages in patent infringement suits are relatively vague and refer to conditions in the real world for guidance in achieving realistic results. It therefore behooves persons chosen to aid the court in reaching a fair and realistic result to provide an opinion that is logical and that takes actual conditions into account.

MEASURE OF DAMAGES IN U.S. PATENT LITIGATION

When one or more claims of a United States patent have been held valid and infringed, the relevant statutory provision for the assessment of damages is 35 U.S.C. § 284 (1987):

"Damages

"Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by the infringer, together with interest and costs as fixed by the court.

"When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed.

"The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances. July 19, 1952, c 950 1,66 Stat. 813."

The usual assignment of an expert witness within the Scope of Section 284 is to indicate what would be a reasonable royalty between the parties, taking the judicially and commercially relevant circumstances into account. Since the statute provides that damages will not be less than a reasonable royalty, this level constitutes the judicially acceptable minimum. Various factors can persuade a court to fix damages at a higher figure. If an expert is sufficiently credible, he can also influence the deliberations of a judge, and of a jury in those matters in which a jury has been requested by one of the parties. It is for this reason that the statute expressly provides the possibility to receive expert testimony in this area.

In recent years, there has been a marked increase in patent litigation, resulting in a steady flow of judicial opinions interpreting Section 284. This has been especially true since 1982, when the Court of Appeals for the Federal Circuit (the "CAFC") began to function. Since that time, all appeals in patent infringement cases from the U.S. District Courts have gone to the CAFC. The steady stream of opinions which have issued from the CAFC have served to reinforce the strength of U.S. patents in that a much higher percentage of patents were found to be valid and infringed, and damages in much larger amounts were being found by trial judges and juries, and affirmed on appeal.

The principal architect of this body of jurisprudence has been the first Chief Judge of the CAFC, Howard Markey. It is believed that a careful study of Judge Markey's opinions interpreting and applying Section 284 is a worthwhile exercise for anyone interested in this area of the law. He expressed his views in particular detail in *Fromson v. Western Litho and Supply Co.*,[1] an opinion which provides authoritative guidelines for practitioners.

At the outset, emphasis is given to the statutory language requiring that a patentee be awarded "damages adequate to compensate for the infringement" which in no event will be "less than a reasonable royalty..." In this connection, Judge Markey comments:

> "As used in Section 284 'reasonable royalty' is handy shorthand for damages. As the statute provides, the royalty is 'for the use of the invention

1. 853 F.2d 1568 (Fed. Cir. 1988).

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> by the infringer.' Thus the calculation is not a mere academic exercise in setting some percentage figure as a 'royalty.' The determination remains one of damages to the injured party."

It follows from this that an expert is really fulfilling his or her duty by focusing on the consequences of the infringement of the particular invention involved. This is more directly on point than the choice of one or more of the methodologies that courts have adopted or approved in the past, and which are discussed below. In other words:

- Is the quality of the invention as patented such that it is technically very different, or economically very expensive, for a third party to design around, or otherwise avoid?
- Are purchasers of the product, or users of the process of which the patented invention forms a part, aware of the presence and impact of the invention, and is this awareness crucial to the decision to purchase or use?

This type of qualitative analysis of the patented invention thus appears to be basic to the task of an expert in reaching an opinion whether the consequential level of damages from its infringement should logically be great or small. This is the type of reasoning in which appropriate experience and skills are really pertinent to a court in assessing damages, rather than the mechanical application of various procedural approaches that may previously have been employed in other cases. The importance of this pragmatism is highlighted by further language in Judge Markey's opinion in *Fromson*:

> "Determining a fair and reasonable royalty is often...a difficult judicial chore, seeming often to involve more the talents of a conjurer than those of a judge. Lacking adequate evidence of an established royalty, the court was left with the judge-created methodology described as 'hypothetical negotiations between willing licensor and willing licensee...'
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> "The methodology encompasses fantasy and flexibility; fantasy because it requires a court to imagine what warring parties would have agreed to as willing negotiators; flexibility because it speaks of negotiations as of the time infringement began, yet permits and often requires a court to look to events and facts that occurred thereafter and that could not have been known to or predicted by the hypothesized negotiators."

Judge Markey's reference to an "established royalty" refers to a point, discussed below, which constitutes the first of 13 criteria for fixing "reasonable royalties" within the context of Section 284 suggested by the U.S. District Court in the landmark *Georgia-Pacific case*[2]. His later remark, relating to reliance on data and events which occurred subsequent to the commencement of infringement, is proving to be most helpful to courts, practitioners and experts who apply their minds to these issues.

The reference is to the use of a "book of wisdom," a concept discussed by the U.S. Supreme Court in 1933 in its opinion in *Sinclair Ref. Co. v. Jenkins Petroleum Co.*[3] The employment of the hypothetical negotiation device, now common in these exercises, requires the analysts to simulate business conditions which would logically have been in the minds of the patentee and the infringer just prior to the commencement of an infringement. The "book of wisdom" consists of those subsequent events that actually occurred. The legal device is to assume that such real events would have been in the minds of the hypothetical negotiators.

Whether or not such actual subsequent events were aberrations, which could not reasonably have been foreseen at the time infringement began, it is believed that reference should definitely be made by expert witnesses to the book of wisdom. Indeed, anything that can contribute to the realism of the exercise should be given serious consideration. The language in the *Fromson* decision to "events and facts that occurred thereafter and that could not have been known to or predicted by the hypothesized negotiators" indicates that an expert should be considered as having a fairly wide latitude in choosing events subsequent to the date of the hypothetical negotiation for inclusion in the book of wisdom for the case at bar. It would seem, however, that when such subsequent events could logically have been predicted by the parties to those hypothetical negotiations, these facts should be given even greater weight than chance or extraordinary occurences, since predictability reflects what could actually have been in the minds of the parties.

Another, and earlier, admonition by Judge Markey is that the concept of "reasonable royalties after litigation" is not necessarily equivalent to royalty rates that might be negotiated in a purely commercial environment. In *Panduit Corp. v. Stahlin Bros. Fibre Works*,[4] a case decided prior to the establishment of the CAFC, he stated, "The infringer would have nothing to lose and everything to gain if it could count on paying only the normal, routine royalty non-infringers might have paid...the infringer would be in a heads-I-win, tails-you-lose position." This language has frequently been cited with approval in subsequent opinions handed down by the CAFC.[5]

It is believed that the foregoing citations provide useful guidance in forming an opinion on reasonable royalties within the context of Section 284. It must be noted, however, that the statute states that the measure of damages will not be "less than a reasonable royalty." This implies two things. Damages calculated at a royalty rate higher than would normally be negotiated in a purely commercial setting would be judicially acceptable, or recovery of larger amounts by the plaintiff, calculated on a theory other than hypothetically negotiated royalties, would be allowable. This other, presumably greater amount of damages is usually calculated as "lost profits" to the patentee.

It is usually stated that to "obtain lost profits, a patent owner must prove that he would have made the sales but for the infringing activity."[6] This is sometimes referred to as the "but for" test, and is now regularly

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2. *Georgia-Pacific Corp. v. United States Plywood-Champion Papers, Inc.*, 318 F.Supp. 1116 (1970).
3. 289 U.S. 689, 698-99, 17 USPQ 522, 525-26.
4. 575 F.2d 1152, 197 USPQ 726 (6th Cir. 1978).
5. *See*, for instance, *Sickle v. Heublein*, 716 F.2d 1550, 219 USPQ 377 (1983).
6. Bio-Rad Laboratories v. Nicolet Instrument Corp., 739 F.2d 604, 616 (1984).

cited as the essential foundation for a patentee's remedy based on its lost profits.

Judge Markey's opinion in *Panduit*[7] provides further details to help determine whether the patentee's lost profits is the appropriate measure of damages. This consists of four criteria, all of which the patentee must prove if the remedy is to apply, namely:

1. Demand for the patented product;

2. Absence of acceptable non-infringing substitutes;

3. Manufacturing and marketing capability to exploit the demand; and

4. The amount of profit he would have made.

Experience has shown that the most difficult of these factors to prove is the second. Indeed, a careful analysis of this circumstance, sometimes described as whether there is a commercially viable non-infringing alternative to a patented invention alleged or actually held to have been infringed, is considered by the writer as crucial in determining the measure of damages. This issue is directly relevant to the strength or breadth of the relevant patented invention being litigated: if the quality of the patent is insignificant in that there exist easily available non-infringing alternatives, damages "adequate" to compensate for its infringement should be correspondingly modest.

Suppose, for example, that a patented feature of some product may be easily designed around but is infringed by a defendant, either inadvertently or because of a sincere (but later judicially held mistaken) belief that there was no infringement. If, consistent with the *Panduit* decision, this is sufficient to defeat the patentee's damages claim based on a lost profits theory, the same facts should also support an argument that no potential licensee (whether in a real or hypothetical negotiation) would logically be prepared to pay a high royalty rate to obtain a license to such easily avoided invention. The resolution of this question, one way or the other, is considered to be influential in determining the measure of damages.

In another Markey decision, *TWM Mfg. Co. v. Dura Corp.*,[8] the Court cited with approval several circumstances which are deemed to support the lower court's finding that no acceptable non-infringing substitutes or alternatives were deemed to exist. These were:

1. The infringer's failure to design its own device, despite the alleged availability of other devices then currently characterized by the infringer as being "acceptable."

2. The infringer's election to infringe, despite having expended only minimal sums at the time the patentee served notice of infringement.

3. Willful infringement.

4. Failure of the infringer to market successfully allegedly "acceptable designs.

5. Violation by the infringer of an earlier injunction.

6. The infringer's withdrawal from the business after enforcement of the injunction.

There is no mystery why these listed factors point to the inability to avoid the patent. Many different scenarios can be envisaged, however, when the narrowness of a given patent, or the insignificance of the invention it covers, will impose no such restraints upon a third party accused of infringement. It is believed that such distinction should be reflected in much lower damages, probably calculated on a reasonable royalty rather than lost profits theory.

While the four *Panduit* tests have been repeatedly utilized by the courts in subsequent decisions, these factors have recently been described as being a "non-exclusive standard for determining lost profits."[9] In the *Mor-Flo* case, the CAFC affirmed an allocation by the District Court to the effect that the patentee, State Industries, was awarded lost profits for the percentage of the entire market represented by the patentee's share of the entire market, with the remainder of the patentee's damages being determined in accordance with a reasonable royalty approach, whereby the determined royalty rate was multiplied against the rest of the sales of infringing products by the infringer. Even though the Court found an absence of acceptable non-infringing substitutes as well as the fact that the patentee's production capacity could have satisfied total demand, this was the division that the patentee requested, and such request was respected. There was an implication that State might have gotten lost profits from this defendant based on a larger percentage of defendant Mor-Flo's sales, but the CAFC was content to affirm the claim that State had made. The question of allocations of this general type between "lost profits" and "reasonable royalties" requires further clarification, and there is authority that the two theories of damages should be applied alternatively, but not cumulatively. In the writer's opinion, this point remains unsettled.

While a licensing executive called upon to testify as an expert in these cases should have the ability to appreciate the boundaries between theories of damages based on lost profits and reasonable royalties, it is experience in fixing royalties in the commercial world that usually constitutes the expertise that justifies the expert's appearance. If lost profits are defined as those profits which the patentee would have realized *but for* infringement, reasonable royalties have been judicially described as:

> "the amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee — who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention — would have been willing to pay as a royalty and yet be able to make a reasonable profit, and which amount would have been acceptable by a prudent patentee who is willing to grant a license."

The quoted description of reasonable royalties is the last of 15 "pertinent factors" cited in the district

7. 575 F.2d 1152, at 1156.

8. 789 F.2d 895 (Fed. Cir. 1986).

9. *State Industries, Inc. v. Mor-Flo Industries, Inc.*, 883 F.2d 1573, at 1577 (Fed. Cir. 1989), also citing *Bio-Rad*.

court opinion in the *Georgia-Pacific* case, which is frequently referred to as the leading judicial statement on the subject. The fourteenth factor is "the opinion of qualified experts." The other 13, which are all essentially embodied in the 15th criterion, and to which many experts usually refer both in actual negotiations and in the hypothetical posed by factor 15, are:

1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.

2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.

3. The nature and scope of the license, as exclusive or nonexclusive, or as restricted in terms of territory or with respect to whom the manufactured product may be sold.

4. The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention, or by granting licenses under special conditions designed to preserve that monopoly.

5. The commercial relationship between the licensor and licensee, such as whether they are competitors in the same territory in the same line of business or whether they are inventor and promoter.

6. The effect of selling the patented specialty in promoting sales of other products of the licensee, the existing value of the invention to the licensor as a generator of sales of his nonpatented items, and the extent of such derivative or convoyed sales.

7. The duration of the patent and the term of the license.

8. The established profitability of the product made under the patent, its commercial success, and its current popularity.

9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.

10. The nature of the patented invention, the character of the commercial embodiment of it as owned and produced by the licensor, and the benefits to those who have used the invention.

11. The extent to which the infringer has made use of the invention and any evidence probative of the value of that use.

12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.

13. The portion of the realizable profit that should be credited to the invention, as distinguished from nonpatented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.

The foregoing list of factors represents an earnest effort by the court to provide guidelines in determining what would be reasonable royalties following a finding of patent infringement. These factors are not considered to be exhaustive, nor is this regarded as the only approach to these different assignments. Litigators and the courts often seem constrained however, to pay lip service to the thirteen substantive factors listed in the *Georgia-Pacific* case, as has the writer in the past.

The quoted fifteen *Georgia-Pacific* factors were listed in a 1970 opinion and have stood the test of time, in that they continue to be cited regularly. An updated version of such factors was utilized in 1992 in the charge to the jury by the trial judge in *Honeywell v. Minolta*,[10] a case subsequently settled by a substantial payment by the defendant, Minolta, to Honeywell, the patentee. This charge adopted *Georgia-Pacific* factors, namely Nos. 3, 4, 5, 6, 7, 8, 9, 10, 11, 13 and 14.

The changes made are interesting, and should be taken into account in the future. Firstly, *Honeywell*, omits the first two *Georgia-Pacific* factors relating to established royalties and other "comparables." The writer does not consider this to be an attempt to downgrade the importance of these precedents; after all they are restatements of the sacrosanct legal principle of *stare decisis*. Therefore, if solid precedents in fact exist, they should still carry the day, without the need to resort to the other factors.

In restating factor 15, the court incorporates the teachings of the *Fromson* case, and indeed affirms that it intends to cover unexpected facts that actually occurred subsequent to the hypothetical negotiation. The text of the instruction reads:

> "The amount that Honeywell and Minolta would have agreed upon, if both had been reasonable and had voluntarily tried to reach an agreement, starting at the time the infringement began. In making this determination, you may take into account the events and facts that occurred thereafter, and that could not have been known to or predicted by the hypothesized negotiators."

Instead of *Georgia-Pacific* factor 12 relating to standard industry profits (which the writer does not favor; see *infra*) the *Honeywell* judge substituted:

> "What the parties reasonably anticipated would be their profits or losses as a result of entering into a license agreement."

Under this formula, the practitioner and expert witness could take into account industry practices to the extent that they might be relevant, but would have the added flexibility to consider any other pertinent business circumstances in making the analysis. This pragmatic attitude is deemed useful.

Three additional factors were added by the judge in *Honeywell*, all of which reflect the same attitude. They are:

> "the relative bargaining positions of Honeywell and Minolta";
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> "The extent to which the infringement prevented Honeywell from using or selling the invention"; and
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> "The market to be tapped."

The addition of the noted criteria should prove helpful to damages experts and triers of act to determine commercially realistic royalties in the context of §284.

What follows are some comments that reflect many years' experience in trying to interpret the *Georgia-Pacific* factors, both on the bases of the court decisions and the special facts of the cases in which the writer has been involved:

1. Underlying the entire process within the scope of the hypothetical negotiation is the assumption that the patent involved is accepted by both parties as being valid and enforceable. While this is probably more favorable to a patentee than is the case in a commercial negotiation, in which a potential licensee might perhaps allude to the possible unen-

10. Civil Nos. 87-4847, 88-1624 (D.N.J. Jan 28, 1992), jury instruction, at p.69.

forceability of a patent sought to be licensed, one must not lose sight of the fact that this assumption does not affect the *quality or breadth* of the patent in question. Thus, if the assuredly valid patent nevertheless covers an inconsequential invention, its value is still modest.

2. The next understanding is that the hypothetical license being attempted to be negotiated is nonexclusive and "naked," that is, devoid of accompanying rights to know-how, trademarks and copyrights. This would tend to have a negative effect on the hypothetical royalty rate, standing alone, because most commercial licenses encompass a combination of intellectual propty rights. Since the identical licensing format exists in all hypothetical negotiations under §284, however, these conditions should be treated as a normal rather than a negative factor in these circumstances.

3. Turning to the quoted *Georgia-Pacific* criteria, the first two refer to precedents which, if sufficiently pertinent, could lead to a conclusion that there is an "established royalty." If this is indeed found to be the case, the remaining factors need not be considered. Incidentially, the writer believes that it would be correct to broaden the second criterion to include rates paid by the patentee for other comparable patents as being a pertinent precedent. As a caveat to relying too heavily on these two factors, there are many distinguishing circumstances that could effectively negate the relevance of precedents that may be suggested by the parties, such as:

- Differences in market conditions for any reason.
- Variations in the competitive strengths of the parties at different points in time; or
- Whether a particular license was part of a broader transaction, where other conditions may have been paramount.

4. The fact that a patentee has a clearly announced policy not to grant licenses, which has indeed been confirmed by its uniform behavior in that regard, could exert a somewhat upward influence on a royalty rate being hypothesized. The patentee should not be permitted to use this situation, however, to argue that it removes the possibility of the damages being measured in a reasonable royalty context and that only a lost profits yardstick should be employed. The ground rules of these hypothetical negotiations to determine a reasonable royalty are that both parties will participate, although the "reluctance" of the patentee, as described above, can be noted.

5. If the parties to a hypothetical negotiation are direct competitors, it is arguable that a patentee would press for a higher royalty rate to gain added protection from this particular licensee. On the other hand, this type of licensee could be expected to be especially alert to minimize any competitive edge, and could argue for reasonableness on the ground that "the shoe could be on the other foot" in the future.

6. Convoyed sales, if a close examination of the facts reveals them truly to exist in the case at bar, are relevant in perceiving the future profitability of an infringer/licensee. They should therefore be taken into account. In assessing damages on a "reasonable royalty" theory, however, different royalty rates might be assigned to directly infringing sales and convoyed sales.

The duration of the infringed patent, and hence term of the hypothetical license, is a factor that is possibly deceptive. A long remaining term does not necessarily point to a higher royalty rate, and vice versa. As with most concepts relating to licensing, it should be examined in the specific context of the case at bar. Thus:

- If many years remain to run on the infringed patent, and if it happens to be in a scientific discipline being rapidly advanced such that the patent is likely to become obsolete long before its expiration, a relatively modest royalty rate would be logical; and
- If an infringer is actively marketing products covered by a patent scheduled to expire in a year or two, such infringer might be willing to pay a very high royalty rate for a short duration so as to avoid a hiatus from the market.

8. The established profitability of a product made under the infringed patent, its commercial success and current popularity, are factors that would seem to point to high royalties, if these questions can be answered in the affirmative. The crucial issue, however, is whether such profitability, success and popularity are directly attributable to the patent. If not (e.g., the infringed patent merely relates to one component of an assembled product, it is easily designed around, and purchasers are even unaware of its existence in the assembly or its patented features), this factor can be largely or totally irrelevant.

9. The marginal utility of the patented invention over older modes addressed to the same purpose can be highly relevant in fixing a royalty, assuming there are no readily available, equally useful, non-infringing substitutes.

10. The nature of the patented invention, and the character of the commercial embodiment of it as owned and produced by the patentee — as well as the benefits to those who have used the invention — is directly relevant to setting royalty rates, particularly to the application of the "entire market value rule," discussed *infra*.

11. The extent to which the infringer has made use of the invention is directly relevant to the size of the royalty base (against which the royalty rate is multiplied to arrive at the total royalty figure), and is also pertinent to the question whether non-infringing substitutes were readily available; evidence as to the value of such use to the infringer could also influence the level of royalties which could logically be agreed to be paid;

12. The reference to so-called industry practice is considered relevant by many, but has traditionally been given relatively little weight, with specific regard to royalty rates, by the writer, who continues to believe that each specific transaction is *sui generis* and should be evaluated in the light of all its relevant circumstances. This is not to say, however, that certain realities concerning particular industries shouldn't be taken into account in these exercises. For instance:

- In *Stickle v. Heublein*, the appellate court rejected the theory advanced by the patentee that damages should be calculated on the basis of the volume of products processed by the infringing machines, since this approach has uniformly been rejected, in fact, by operators in the food processing industry, in which the patentee's machines were used.

• The realities of licensing in the auto industry were taken into account by the court in deciding damages in the so-called windshield wiper case, *Kearns v. Ford*,[11] and

• A special environment long prevailed in the licensing of technology relating to the design and production of electronic chips; this usually entailed cross licensing of entire patent portfolios and justification of imbalances via lump sum payments or royalties governed by a cap; this environment may be changing, however.

13. "The portion of the realized profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer" represents the type of equation which the writer considers to be most appropriate in negotiating royalty rates. This is the environment in which one can apply the so-called 25% rule, favored by the writer, both in commercial negotiations, and also in implementing Section 284.

The 25% rule originally occurred to the writer as a result of a series of successful commercial licenses with which he became involved back in the late 1950s. The licensor granted to each of its licensees located in many different countries around the world a relatively strong bundle of intellectual property rights. These consisted of:

• A portfolio of useful patents covering a variety of pragmatic inventions in this mature industry.

• A continual flow of know-how, plus the right to send a delegation to the licensor's plant each year to observe the latest improvements in products and manufacturing processes.

• Several well respected trademarks that were supported by a high-quality advertising program.

• Copyrighted marketing and product description materials that were available for translation into local languages.

Each of these licensees was first or second in its licensed territory, each was happy with the relationship with the licensor, and their licenses were regularly extended. Each could be described as a "win-win" situation.

The licensees all earned about 20% pre-tax profit on sales and each paid a 5% royalty on sales — or 25% of the pre-tax profitability rate. The main reason that the licensees retained 75% of this "profitability pie" was that they assumed the greater risk in these operations, inasmuch as they had made substantial investments in plant and machinery, and faced vigorous competition from companies selling similar products.

Having noticed this empirical relationship whereby there was a 25-75 split in the pre-tax profitability rate in a series of successful licenses, the writer has developed a methodology that has proven its worth over the years in commercial negotiations. One starts with a 25% split to the licensor and then either "tunes" this figure up or down, depending on the peculiar circumstances of each case, including the significance of the intellectual property portfolio and the location of the principal burden of risk.

With the benefit of considerable experience, the 25% rule has helped create a climate of realism in many negotiations that have led to mutually satisfactory deals.

While the District Court in the *Georgia-Pacific* case spelled out 15 criteria for fixing reasonable royalties in the context of Section 284, with the 13th describing the methodology behind the 25% rule, it must be noted that this decision was partially reversed on appeal to the Second Circuit.[12] Indeed, the Appellate Court did not appeal to take into account all of the nuances that could exist in a hypothetical negotiation; instead, it employed a technique that has since come to be known as the "analytical method."

According to this technique, one starts with the selling price of the infringing articles by the infringer and then deducts the infringer's (a) direct or variable costs in producing the article; (b) fixed costs, including allocated overhead to produce the article, and (c) "normal" profits to the infringer on similar products.[13]

The remainder is given to the patentee, and is described as "reasonable royalties." The reason given by the Second Circuit in modifying the lower court decision was that it failed to leave Georgia-Pacific "a reasonable profit on its sale of striated plywood," the infringed product. The analytical approach is designed to do just that.[14]

The methodology for assessing and computing damages in patent infringement cases is a choice within the sound discretion of the District Court.[15] Such choice, and indeed the means of application of a particular methodology, will not be disturbed by the CAFC unless an abuse of discretion is found, something which has historically occurred only in a small minority of the cases.

Another approach to setting a hypothetical reasonable royalty that also mirrors circumstances that exist in actual negotiations may be called "accommodation royalties."

Suppose, for example, that a manufacturer of widgets, *A*, discovered that one of its competitors, *B*, held a patent on a chemical process that covered the use of a known catalyst at a temperature above 140 degrees centigrade. *A* was currently producing widgets with the same catalyst at an average of 135 degrees centigrade that performed in an equivalent manner in all respects to the catalytic performance of *B*. It

11. E.D. Mich., Southern Division, Circuit Court, No. 78-70740.

12. 446 F.2d 295, 170 USPQ 369 (2d Cir. 1971).

13. In the *Panduit* case, 575 F.2d 1152, at p. 1164, the court substituted "the customary profit allowed licensees in the industry at that time" for the third deduction, when referring to the analytical approach.

14. The rule has since been followed in several cases including *Tektronix, Inc. v. United States*, 552 F.2d 343 (1977) in the U.S. Court of Claims, and *Paper Converting Machine v. Magna-Graphics*, 745 F.2d 11 (1984) in the CAFC.

15. *Smith Corp. v. Eur-Control USA, Inc.*, 775 F.2d 268, 268-275; 227 USPQ 352, 357 (Fed. Cir. 1985); *King Instrument Corp. v. Otari Corp.* 767 F.2d 853, 863; 226 USPQ 402, 409 (Fed. Cir. 1985).

was not always possible to control process temperatures precisely, however, and *A* recognized that some production batches might therefore inadvertently infringe the patent.

In these circumstances, it could be logical for *A* to seek a license from *B*, as an accommodation, so as to remove this element of risk. *A* will probably offer a very low royalty rate (if calculated as a percentage of sales, no more than 1%, and probably less), or it might suggest a relatively modest lump-sum amount, for a paid up license for the life of *B*'s patent.

B would be likely to agree to such an arrangement for two reasons. First, the funds received would constitute a windfall, because the deal would be a naked license, without requiring any effort or expenditure on the part of *B*. Second, considering the fact that *A* and *B* were serious and well-equipped competitors of one another, the roles could easily be reversed on another patent, and reasonable behavior by *B* in this instance would likely be reciprocated in the future.

"Accommodation royalties," or licensing transactions in which the described considerations constitute a relevant factor, occur quite frequently in the "real world." They are sometimes manifested by a patentee of a viable invention who adopts this strategy in an attempt to license all competitors in an entire industry on a nonexclusive basis. If everyone would agree to pay the same very low royalty rate, the burden would not be particularly onerous to anyone. Since this strategy would create a very large royalty base, however, substantial sums could be expected by the licensor. This was the approach successfully adopted by Dolby, in the virtually universal licensing of its audio modification technology,[16] and also by Professor Dr. Karl Ziegler, in the widespread licensing of his patents for basic polyolefin catalysts, for which he was awarded a Nobel Prize.

This approach was recently employed by the writer in an expert opinion provided in the course of a patent litigation. The case was settled before trial, but indications are that my arguments carried weight in the settlement negotiations. In this case, my services were retained by the accused infringer.

The patentee had brought an action alleged infringement of eight patents. Of this package, one patent was considered very broad on its face, and covered the infringer's products. However, there was clear evidence, in the opinion of the infringer, that this patent was invalid. Indeed, it had several fact witnesses, as well as documentary evidence, to support its position that the patent was anticipated, and that this patentee was aware of the true facts. The defendant was therefore quite confident on this point.

The other seven patents (several people involved in the case referred to the entire portfolio as "Snow White and the Seven Dwarfs") were not considered to be seriously relevant. They were either literally not being used by the accused infringer, could easily have been designed around, or were deemed invalid, for one or more reasons.

Thus, the accused infringer felt that it was in a strong position, and that there was a high probability that it would prevail at trial. It also realized that its legal defense would be very expensive, both in actual cash outlays for professional fees and disbursements, as well as in the loss of time of its executives which would necessarily be required.

In these circumstances, it was logical to me that this accused infringer would offer two lump sums, as accommodation royalties, to dispose of the matter. One sum would relate to "Snow White" and the other to "The Seven Dwarfs."

In normal, arm's-length circumstances in which it was in possession of all the relevant facts, the accused infringer would never enter into a license for these patents. This pragmatic approach made sense in the reality of pending or threatened litigation by a determined adversary. Of course, the amount offered as "accommodation" was modest in comparison with the patentee's demands.

The writer does have views about the relative merits of the different methodologies and their use in the various cases, and in light of his personal experience. He also has opinions about the role of an expert in commenting about damages within the scope of Section 284.

The analytical method has the merit of relative simplicity. Moreover, it approximates a situation where an infringer realizes excess or windfall profits as a direct result of its tortious actions and it thus appears appropriate for use in such situations.

There are several instances, however, where the analytical method appears too crude to be accurate. For instance, the method operates so as to award royalties to the patentee based on the entire value of the infringing product. This implies compliance with the so-called "entire market value rule" which permits recovery of damages based on the value of the entire apparatus containing several features, where the patent related feature is the basis for customer demand."[17]

It follows that if the infringement does not satisfy the requirements of the entire market value rule, something that frequently occurs, reliance on the analytical method would be inappropriate. Suppose, for instance, that the infringement related to a circuit in a TV set, that there were non-infringing substitutes to such circuit, and that customers bought the set knowing nothing about the infringed circuit. The entire market value based on the selling price of the entire TV set would be illogical here, as would be the appropriateness of utilizing the analytical approach.

The same conclusion would be reached if the infringement related to a process patent to which there was a non-infringing alternative. In *Johns-Manville Corp. v. Guardian Industries Corp.*,[18] the court stated that "the analytical approach is not well-suited to process patent (as opposed to product patent) infringement where practicing the patent simply results in production of a fungible item at a decreased expense, thus merely reducing variable costs."

16. For a description of the development of Dolby licenses, see *les Nouvelles*, vol. 18, No. 4 (Dec. 1983), at 197.

17. *State v. Mor-Flo*., op. cit., at 1580, citing *Paper Converting* and *Dure*.

18. 718 F.Supp. 1310 (E.D. Mich. 1989).

Aside from the noted crudites inherent in the analytical method, it should be noted that the verification of the figures required for its calculations is essentially the role of a cost accountant rather than an expert in the negotiation of licenses. The latter person is more at home attempting to breath a sense of reality into hypothetical negotiations.

The concept of "accommodation royalties" is only applicable to special circumstances where there does not exist a serious, logical controversy between the parties. In those relatively rare situations in which it is viable, however, the accommodation approach is possibly the most appropriate of all.

It is for this reason that the writer usually favors employment of the so-called "25% rule" when tackling an expert witness assignment within the scope of Section 284. This methodology is now widely utilized in fixing licensing royalties in the commercial world. With certain modifications which take into account the various legal precedents interpreting Section 284, it has been found to be a sensible and persuasive approach to providing expertise to courts in these matters.

The 25% rule was recently discussed in detail in a patent infringement case in which the value of a patent was held to be limited to the cost savings it permitted. In *Comair Rotron v. Matsushita*[19], the patent was held to be valid and infringed. The subject matter of the invention was the magnetization of one piece magnets for inclusion in DC brushless fans, devices that are manufactured in large quantities for installation in personal computers, photocopiers and other electronic devices in which cooling of various elements is desirable.

The teachings of the infringed patent did not affect the performance of the relevant fan, but did simplify manufacturing, which resulted in cost savings. Customers were usually unaware whether the patented format or some non-infringed alternative was employed on a given fan, and were indifferent on the matter. Both sides employed accounting experts who provided opinions about the extent of the cost savings achieved by the patented approach.

The patentee's damages expert rendered an opinion based on the analytical method, but this was rejected by the judge on the ground that the employment of the patent did not influence the decisions by customers to purchase these fans.

Instead, the judge ruled that the true profitability pie was the cost savings achieved via the patent. He ruled that the patentee's damages (before pre-judgement interest) were to be calculated as 30% of the cost savings, instead of 25%, which was the opinion of the infringer's damages expert. The patent involved was a product rather than a process patent, and is thus an extension of the reasoning underlying the *Guardian* case.

Damage awards in patent infringement suits have become increasingly significant during the past 10 years, particularly since the installation of the CAFC as the national appellate court from decisions by U.S. District Courts. The flow of decisions emphasizes the importance of close attention to the language and spirit of Section 284, even though a variety of methodologies to implement this statutory provision have been recognized and affirmed as falling within the broad discretionary powers of the trial judges in these cases.

RELATIVE VALUES OF PATENTS AND KNOW-HOW

An additional relevant area for licensing expertise concerns the relative values to be accorded to patents and ancillary know-how in given situations. In *Duplan Corp. v. Deering Milliken, Inc.*,[20] the court held that all of the patents which Deering Milliken Research Corporation ("DMRC") had sublicensed to numerous throwsters — companies engaged in the texturing of synthetic yarn filaments — were either invalid or not infringed. These agreements had generated royalties to DMRC during their early years. In fact, DMRC was a licensee granting sublicenses pursuant to an agreement that DMRC had with the patentee, a French company. Litigation started when DMRC sued the throwsters for nonpayment of royalties. The throwsters counterclaimed, alleging antitrust violation by DMRC, and these counterclaims were upheld. As a result, in the case in question, DMRC was potentially liable to have to pay treble damages on royalties previously collected.

These were not naked patent licenses, however, and there was evidence that DMRC had provided considerable support services and other forms of know-how to most of these licensees. Expert testimony was provided that the quantum of know-how made available to the licensees, which constituted value actually received by them, was considerable and should substantially mitigate the purported damages. Following this testimony, fourteen of the sixteen damage claimants settled their claims with DMRC for far less than three times the royalties previously paid. In a decision regarding the two claimants who refused to settle,[21] the court expressly referred to this expert testimony and reduced the damages by a valuation which the court placed on the ancillary know-how. This figure was more modest than that recommended by the expert, but the principle of the expert's testimony was nevertheless recognized.

Another case involving familiarity with the licensing discipline was a dispute between DuPont and Shell in the state courts of Delaware.[22] This case was based on a license agreement from DuPont to Shell with regard to an agricultural chemical that had been the subject of a worldwide patent dispute between the two companies. DuPont had prevailed in the United States and a few other jurisdictions, and Shell had been awarded patents in the rest of the world. A key provision of the license agreement was that Shell was prohibited from granting sublicenses.

After a few years, Shell decided

19. U.S. District Court for the Northern District of New Jersey Civil Action No. 88-4305.

20. 594 F.2d 979 (4th Cir. 1979).

21. *Duplan Corp. v. Deering Milliken, Inc.*, 1981-2 Trade Cas. (CCH) ¶64,214 (.D.S.C. 1981).

22. *E.I. DuPont de Nemours & Co. v. Shell Oil Co.*, 498 A.2d 1108, 227 USPQ 233 (Del. 1985).

to phase out its production plant in the United States, and became interested in having the patented compound made for it by Union Carbide Corporation. Union Carbide had the ability to make the materials and also wished to incorporate them as an ingredient in its own proprietary agricultural chemical that it was interested in introducing. In this latter connection, Union Carbide had requested from DuPont a license under the same patent covered by the Shell agreement, but DuPont had refused.

Shell and Union Carbide thereupon entered into a highly innovative, complicated agreement whereby Union Carbide would make the patented materials for Shell, who would thereupon sell them back to Union Carbide for subsequent incorporation into Union Carbide's new proprietary compound. Pursuant to this legal sleight-of-hand, the same material, remaining in the same drum, and without moving one millimeter from its place at the UC plant, changed title three times. DuPont sued Shell, alleging breach of the contractual prohibition against sublicensing.

The writer's opinion, on behalf of DuPont, was that the Shell-Union Carbide agreement violated the spirit of the DuPont-Shell license and manifested a "loophole mentality." This conclusion was based on the theory that licensing agreements usually regulate longterm, ongoing relationships. An indisputable ingredient to successful licensing is the development of mutual trust and interaction between the parties. This environment was to be compared with single transaction horsetrades, where *caveat emptor* is the watchword.

The trial judge agreed with Shell's position, and indeed commented favorably about the clever lawyer involved in the structure of the Shell-Union Carbide agreement. The appellate court unanimously reversed, upholding the spirit as well as the letter of the license.[23] Aside from the personal gratification involved, it is felt that this attitude is eminently correct and affirms the moral tone that constitutes the cornerstone of the licensing discipline.

DAMAGES IN TRADE SECRETS CASES[24]

Suppose some key employees of Company A decide to leave and form a competitive firm, Company B. Assume that such employees illegally took a variety of A's secret drawings, without which B would not have been able to produce a truly competitive line of machines for many years, instead of the 18 months that it took for B to introduce its first commercially acceptable model. Assume further that A learned about the illegal activities of these former employees, brought suit for the theft of trade secrets against B, and obtained an injunction against B within a month of the product introduction.

Broadly speaking, the law of trade secrets recognizes these principal theories for recovery by the owner in situations such as this. They are:

1. Damages resulting from the proprietor's loss,[25] intended to compensate the owner for the actual harm experienced from the wrongful use and disclosure of the trade secret. This could include lost profits of the proprietor, diminution in the value of the proprietor's business, and the cost of remedying the effects of the misappropriation.

2. Damages compensating the proprietor for the wrongdoer's gain,[26] thereby depriving the wrongdoer from the benefits experienced as a result of its unlawful conduct. Under this theory, the proprietor may recover the wrongdoer's gain from profits (from use or sale of the information) or its savings (from avoiding the original development costs as well as lower production costs). Of course, these recoveries are limited to the wrongdoer's gain attributable to the trade secrets that were misappropriated.

3. Damages based on a "reasonable royalty" rate. This approach is considered to be most appropriate when neither of the other two approaches is deemed likely to yield a logical amount of damages. For instance, in the hypothetical posed herein, the wrongdoer would have been apprehended before it had sufficient market exposure to earn substantial profits, or to wrest many sales from the proprietor. Nevertheless, the effectiveness of Company B in aborting this plot should not serve to its detriment in recovering damages from the disturbance that was created. The combination of an injunction against A, plus reasonable royalties would seem to be a more appropriate remedy to the proprietor. In the words of the court:

> "In calculating what a fair licensing price would have been had the parties agreed, the trier of fact should consider such factors as the resulting and foreseeable changes in the parties' competitive posture; the prices past purchasers or licensees may have paid; the total value of the secret to the plaintiff, including the plaintiff's development costs and the importance of the secret to the plaintiff's business; the nature and extent of the use the defendant intended for the secret; and finally whatever other unique factors in the particular case which might have affected the parties' agreement, such as the ready availability of alternative processes."[27]

This question falls within the discretion of the District Court. In many cases, it could provide the most appropriate methodology, and the fact that the "reasonable royalty" approach has been so widely used and accepted in patent cases provides confidence, based on actual experience, for its employment in the field of trade secrets damages. In this connection, the writer sees no reason why the 25% rule and the *Georgia-Pacific* factors could not be brought into play in performing this exercise.

This theory was the basis for the writer's testimony in *Rockwell International v. Dev Industries*.[28] This involved the theft of trade secrets in the form of piece part drawings, which enabled the defendant within a relatively short time to manufacture and market a line of printing presses

23. 498 A.2d at 1117.

24. See *Trade Secrets Law* by Melvin F. Jager, Clark Boardman Callaghan Company, Ltd., 1985, updated annually, § 7.03; and *Modern Intellectual Property*, by Michael A. Epstein, Second Edition, 1984 Chapter 4, pp. 134-144.

25. See *Sperry Rand Corp. v. A-T-O, Inc.*, 447 F.2d 1387 (4th Cir. 1971).

26. See *Industrial Indus., Inc. v. Warren Petroleum Corp.*, 248 F.2d 686 (3d Cir. 1957).

27. See *University Computing Co. v. Lykes-Youngstown Corp.*, 504 F.2d 518 (5th Cir. 1974).

28. 925 Fed 174 (7th Circuit-1991).

in competition with the proprietor of the trade secrets. Several other issues were covered in the detailed written expert opinion that was submitted by the writer on behalf of the plaintiff. The attorneys for the defendant did not disagree with the reasonably royalty rate contained in this opinion, however, and the main arguments of the plaintiff were accepted by the jury and the court.

TRADEMARKS

Another noteworthy situation involved the unreported case of *Pringle v. Procter & Gamble.* A certain Mr. Mark Pringle had obtained a patent on stackable potato chips that he was never able to commercialize, and his patent expired. A few years later, when Procter & Gamble (P&G) was prosecuting its own non-infringing patent application for stackable potato chips, the Pringle patent was cited to P&G by the Patent Office. There was also some evidence that members of a team of persons at P&G having the responsibility for selecting a trademark for this product were aware of Mr. Pringle's identity.

The young and enterprising attorney who originally brought this suit based his case on a novel theory that the name of a prior patentee had been wrongfully misappropriated by P&G. The case had all the trappings of David against Goliath. The court consistently refused to grant motions to dismiss on various grounds brought by P&G. Plaintiff's attorney sought to obtain information about the thinking that had gone on at P&G in the selection of the trademark, but this effort was severely hampered by the modest budget available to the plaintiff.

The plaintiff's attorney then called in a licensing expert who had assisted several major corporations in the selection of their trademarks. In the course of a deposition requested and paid for by P&G, the expert stated that the element of coincidence leading to the selection of the PRINGLE trademark by P&G for stackable potato chips was "unusual to say the least." Indeed, a benchmark environment was constructed whereby the persons selecting the trademark concluded that the Pringle name that they had been using in another context was "musical and catchy" and might therefore be suitable for this product. On the eve of trial, which was scheduled to be held before a jury, P&G settled with Mr. Pringle for a figure many times that offered prior to the time the expert appeared on the scene.

It is relevant to note that the measure of damages relating to trademark infringement is markedly different from that applied to patent infringements. The pertinent statutory provision is Sec. 35 (15 U.S.C. 1117), as follows:

Monetary Relief

SEC. 35 (15 U.S.C. 1117). (a) When a violation of any right of the registrant of a mark registered in the Patent and Trademark Office, or a violation under section 43(a), shall have been established in any civil action arising under section 43(a), shall have been established in any civil action arising under this Act, the plaintiff shall be entitled, subject to the provisions of sections 29 and 32 and subject to the principles of equity, to recover (1) defendant's profits, (2) any damages sustained by the plaintiff, and (3) the costs of the action. The court shall assess such profits and damages or cause the same to be assessed under its direction. In assessing profits the plaintiff shall be required to prove defendant's sales only; defendant must prove all elements of cost or deduction claimed. In assessing damages the court may enter judgment, according to the circumstances of the case, for any sum above the amount found as actual damages, not exceeding three times such amount. If the court shall find that the amount of the recovery based on profits is either inadequate or excessive the court may, in its discretion, enter judgment for such sum as the court shall find to be just, according to the circumstances of the case. Such sum in either of the above circumstances shall constitute compensation and not a penalty. The court in exceptional cases may award reasonable attorney fees to the prevailing party.

(b) In assessing damages under subsection (a), the court shall, unless the court finds extenuating circumstances, enter judgment for three times such profits or damages, whichever is greater, together with a reasonable attorney's fee, in the case of any violation of section 32(1)(a) of this Act (15 U.S.C. 1114(1)(a)) or section 110 of the Act entitled "An Act to incorporate the United States Olympic Association," approved September 21, 1950 (36 U.S.C. 380) that consists of intentionally using a mark or designation, knowing such mark or designation is a counterfeit mark (as defined in section 34(d) of this Act (15 U.S.C. 1116(d)), in connection with the sale, offering for sale, or distribution of goods or services. In such cases, the court may, in its discretion, award prejudgment interest on such amount at an annual interest rate established under section 6621 of the Internal Revenue Code of 1954, commencing on the date of the service of the claimant's pleadings setting forth the claim for such entry and ending on the date such entry is made, or for such shorter time as the court deems appropriate.

It is arguable that the trademark remedy is more generous than the current patent damages process,[29] inasmuch as it can require the infringer to disgorge all of its profits from the sale of the infringing goods in addition to payments designed to compensate the trademark owners for its loss. If a relatively small proprietor of a registered trademark sues a much larger corporation for patent infringement, a conservative — but believable — approach to a jury might be to structure a hypothetical negotiation with a view to reaching a reasonable licensing deal, much as is provided in the jurisprudence relating to patents. This approach is not inconsistent with trademark law, and indeed has been sparingly employed in the past.[30] By adopting this somewhat less ambitious strategy, the small proprietor could be amply compensated without creating the negative impression on the court and the jury that it is overreaching.

THE ROLE OF THE EXPERT

Assuming the expertise sought in determining damages or infringement cases is that resulting from experience in actual licensing transactions, the main assignment of the expert is to furnish an opinion as to what would be a royalty that the patentee and this infringer would logically (i.e., "reasonably") have been expected to negotiate at the point in time just prior to the commencement of the actual infringement. Within the context of 35

29. 35 U.S.C. § 284.

30. See *Boston Professional Hockey Assoc. v. Dallas Cap & Emblem Manufacturing, Inc.*, 597 F.2D 71, 202 USPQ 536 (5th Cir. 1979).

U.S.C. § 284 (1987), this opinion should furnish the court with a floor or lower limit of damages to be awarded. If such opinion is accepted, the court can take various factors into account to increase the base figure to the amount of damages which the infringer should be required to pay to the patentee. Indeed, the statute contemplates that the court can go even further than that. Its discretionary powers allow the court to: (a) award up to treble damages, particularly if infringement is found to be willful; (b) award prejudgment interest; and (c) require the infringer to pay the patentee's attorney's fees.

When performing the function of expert, it is believed that the person selected should adopt the following attitudes and procedures:

1. The expert should thoroughly establish the concept of independence. This extends well beyond the absence of conflict of interest from past or present involvements, although that element is also present. The expert should elicit from the party who has retained his or her services a commitment of absolute candor. Any information that could reasonably be relevant to the expert in constructing an opinion, one way or the other, should be freely made available.

2. Questions about preservation of confidentiality should promptly be settled. Frequently, the expert will be required to sign a court-enforced restraining order on the use of commercially sensitive material which is produced by either party to the litigation, via discovery or otherwise. In addition, the expert should offer to the retaining party to execute whatever confidentiality undertaking such party requires of its own employees or consultants, so that the expert will not be inhibited in performing a background study.

3. A general, preliminary opinion by the expert to the retaining party may reasonably be expected. This would indicate the basic direction of the expert's thinking, as well as the methodologies contemplated to be employed. If this is unacceptable to the retaining party, the expert should be relieved, being paid for past services. If acceptable, a relatively detailed plan of action should be mutually agreed upon.

4. The expert should require the same degree of acquaintanceship with the technology involved in the litigation as the expert would need if charged to negotiate a license of the patent at the time of the hypothetical negotiation. This usually involves a visit to actual laboratories and production facilities, similar to those where the infringing products were made or processes performed.

5. In addition to requesting access from the retaining party to all potentially relevant documentation in such party's possession, the expert should be free (within practicable limits) to perform individual investigations to elicit or confirm important facts.

6. When formulating an opinion, the expert should be as explicit as possible about the information directly relied on, as well as other circumstances taken into account, in reaching his conclusions.

Once an expert witness has rendered an opinion on reasonable royalties, it is very probable that the trial court will increase the amount in fixing damages that are adequate to compensate for the infringement.

The courts have consistently followed the teachings in the *Panduit* case in considering the concept of "reasonable royalties after litigation" to be greater than that which would be considered to be reasonable royalties in a purely commercial context.[31] If the expert's analysis has been conducted consistent with the factors listed in the District Court opinion in *Georgia-Pacific*, however, and assuming that various special circumstances such as:

1. The fact that both parties totally accept the validity and enforceability of the patent.

2. A careful analysis is made as to whether the "entire market value rule" should apply.

3. The hypothetical negotiation is realistically set at the time the infringement began, but all relevant circumstances that might have been in the minds of the patentee/licensor and the infringer/licensee would be considered, including those revealed by the "book of wisdom," the expert's testimony, *per se*, might be regarded as sufficiently credible that the court will not feel the need of adjusting it upward to accommodate the spirit of the *Panduit* case.

An expert witness may use the 25% rule to estimate royalties during litigation, though it may not apply in every case. For instance, if it appears that there is an established royalty in the case at bar, or some special circumstances are present whereby some particular strategy could logically be imputed to one of the parties, another approach would probably be more appropriate.

One reason that the writer favors the use of the 25% rule is that it has proven sufficiently flexible — yet logical — to indicate what may be considered as high and low royalty rates in different cases. This is because increased experience over the years with the methodology has made it possible to appreciate more sensitively the element of risk in different equations. This is usually the most volatile element in the equation. Heightened appreciation of the significance of business risk to either or both of the parties can therefore improve the accuracy of an expert opinion on reasonable royalties.

This point may be illustrated by two examples in which a relatively modest royalty rate might normally be considered appropriate, but where the existence of special risks upset the scales;

1. Company A owned a patent that was held to be infringed by Company B, in a market in which A was not active. The patent had only three years to run and there was a noninfringing alternative available to B. One would think that these are the ingredients of a low royalty rate.

The fact was, however, that if B did not have a license during the time required to retool and obtain Underwriters' Laboratory (UL) approval of the alternative device, B would be unable to sell its products and would presumably lose substantial market share to its competitors, who had already obtained licenses from A at modest rates. B had chosen not to settle, had litigated the questions of patent validity

31. See footnote 4, *supra*.

and infringement, and had lost.

With the probability of an injunction not to use A's patent, and therefore disqualification from the market for more than a year, the time required to retool and undergo UI testing, B faced a serious long-term risk to its business. It was therefore "reasonable" for B to pay to A a relatively high royalty, rather than interrupt its ongoing sales. This is what B did.

2. Company Y was relatively small and was a single-service enterprise. Its service, X, was covered by a patent that was held to be infringed by Company Z. Z was much larger than Y, and had a family of related products, substantial sales of which could be expected to be "convoyed," if Z would have the right to perform service X. Y realized a 40% margin on rendering this service.

The expert painted an image of Y's owning a "locomotive" (i.e., service X), and of Z's owning "a string of freight cars without a locomotive." If Z had a nonexclusive right to X, Z could render the service essentially at cost and still realize handsome profits from the sale of its ancillary products. Such a license of X from Z could therefore have amounted to corporate suicide for Y. Thus, because of this extraordinary element of risk, the expert conservatively allocated 75% of the 40% profitability pie to Y, because that would be realistic in the circumstances.

It is this type of sensitivity, which takes into account the peculiar circumstances affecting the parties to the litigation, which persuaded the writer that the 25% rule provides meaningful guidance.

At the same time, applications of the rule are relatively simple and straightforward. The measurement of damages in these cases necessarily entails value judgments of a qualitative nature which rule out results of exquisite accuracy. Overly complicated mathematical formulas or analyses are likely to lose the interest of judge or jury, and would probably never have been employed by the parties in reaching a decision about whether or not to infringe a patent. Thus, it is believed that the 25% rule provides a comfortable middle ground that captures the flavor of what justice requires in a given case, without obscuring the realities with spurious, and frequently irrelevant, technicalities.

With the passage of time, the writer has found a methodology that makes the use of the 25% rule in the courtroom more easily understandable to judges and juries. This is to start with an initial assumption that a reasonable royalty rate will be 25% of the infringer's perceived pre-tax profitability rate at the time of the hypothetical negotiation (e.g., a 20% pre-tax profitablity rate would be calculated as a 5% royalty), and then to tune this figure up or down taking into account the *Georgia-Pacific* criteria, the relative risks of the parties and certain realities or practices of the industry concerned. This use of the 25% rule is somewhat different than that employed in a commercial setting, but is considered more appropriate within the context of § 284.

While most of a damages expert's attention is usually focused on fixing the royalty *rate*, serious thought must also be devoted to the selection of the royalty *base*. For instance, suppose the infringed patent relates to only one component of a complicated system. One must realistically decide whether to utilize the system or the components as a base; this is frequently a difficult choice, since there may be serious arguments on both sides.

Many other real-world experiences, including a first-hand knowledge of a variety of licensing strategies, can be helpful to an expert in discharging the serious responsibilities of this role. Among other things, this type of "hands-on" background can help an expert distinguish between the different atmospheres that prevail in commercial negotiations and settlement conferences.

The latter are given much less weight in the course of litigation, for reasons understandable to experts who remain active in real-world technology transfers. This is one reason why this author restricts expert witnessing assignments to less than 25% of my professional time; it is very important to remain up-to-date and realistic if one is to be effective as an expert, and the best way to stay in "shape" is to remain an active player on the field of action. If an expert can knowledgeably testify about various subjective elements that might be expected to be present in particular hypothetical negotiations, this extra dimension can help the trier of fact make a more realistic decision with regard to royalties, and thereby better serve the interests of justice.

Sensitive and skillfully reasoned opinions by experts, taking to account the special conditions in each case, can be useful to the courts in achieving realistic results. These are assignments that benefit from experience in "real world" licensing, familiarity with the growing body of applicable case law, and an appreciation of the commercial significance of the infringed patent in the relevant market.

INFRINGEMENT CLAIMS AGAINST THE UNITED STATES

Holders of U.S. patents may seek damages for alleged infringements by some branch of the federal government before the Claims Court.[32] Here, the relevant statutory provision is 28 U.S.C. § 1498 (1987), which provides:

> "Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States is the United States Claims Court for the recovery of his reasonable and entire compensation for such use and manufacture."

In this context, the concept of reasonable and entire compensation is essentially equivalent to reasonable royalties, taking into account the nearest noninfringing alternatives, as those expressions are interpreted under 35 U.S.C. § 284 (1987). Recovery under § 1498 is based on the theory of the govern-

32. This tribunal was established on August 1, 1982, simultaneously with the Court of Appeals for the Federal Circuit, pursuant to the Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (1982). *See Joseph V. Colaianni*, "Damages in the U.S. Claims Court," 66 J.Pat.Off. Soc'y, No. 1 (Jan. 1984).

ment's right of eminent domain, to compensate the patentee for what it lost by the taking. As such, the element of willfulness, permitting treble damages under § 284, is not present.

Experts can play a similar role in these cases as they can in assessing damages in patent infringement cases between private parties, and the *Georgia-Pacific* criteria have been held to be relevant. The thrust of the expert intervention should be to determine the intrinsic value, in a commercial sense, of that which the government expropriated by virtue of its infringement, on the theory that the government will provide to the patentee "recovery of his reasonable and entire compensation for such use and manufacture."

The role of an expert in cases under § 1498 may be even more sensitive than under § 284. In the latter, the opinion rendered regarding reasonable royalties constitutes merely the floor for damages, and the court has discretion to increase the amount which it ultimately accepts as reasonable royalties up to three times. Under § 1498, however, the opinion and ultimate determination of reasonable and entire compensation — a concept which has been treated as being essentially equivalent to reasonable royalties, and which is usually determined employing the same tools — constitute the damages owing by the government (not counting allowances for delayed compensation) per se. It is thus logical to conclude that the focus of the expert under § 1498 must be sharper, because there are no contemplated adjustments.

SECTION 482 OF THE INTERNAL REVENUE CODE

Another area in which professional expertise in licensing is being employed involves proceedings under Section 482 of the Internal Revenue Code. This provision originally appeared as Section 240(d) of the Revenue Act of 1921,[33] which authorized the Commissioner of the Internal Revenue Service to "consolidate the accounts" of related business for the purpose of making an accurate apportionment of gains, profits, income, deductions, or capital between or among the related businesses. This provision has not undergone any substantive change since 1921, but was renumbered as § 482 during the 1954 revision of the Code.[34]

This provision, and its implementing regulations, have frequently been invoked by the IRS in its efforts to reallocate income of large multinational corporations. One type of transaction scrutinized involves international licensing agreements between related companies. The IRS often alleges that the royalty rates provided distort the commercial realities, and that companies have therefore wrongfully avoided the payment of U.S. taxes. In order to prove its case, the IRS must demonstrate how the transactions being questioned would have been structured if they had been negotiated at arm's length. It is usually difficult, if not impossible, for the IRS to cite precedents of similar transactions, particularly those involving transfers of intangible property, e.g., rights to patents, know-how, trademarks, and copyrights. In these circumstances, it is necessary for the IRS to perform a functional analysis which closely parallels the thought processes that are deemed to occur in the benchmark environment postulated for the negotiation of reasonable royalties.[35]

According to the *Internal Revenue Service Manual on Section 482*, a functional analysis is based on the principle that in a group of enterprises, whether or not they are related, each function should earn its fair share of any resulting profits. When various functions are performed, the enterprise that provides most of the effort, and/or the rare or unique functions, should earn most of the profit. The IRS examiner is required to obtain sufficient data to answer such questions as "What was done? What significant functions were involved in doing it? Who performed each function, and what was the economic value of each function performed by each party?"[36]

Two proceedings under § 482 instituted by the IRS involved the use by wholly-owned foreign subsidiaries of U.S. corporations of some of the world's most famous trademarks. In each case, it was possible to demonstrate that the parent played a very benign role in the international commercial success that was achieved during the period of years under scrutiny by the IRS. The profits earned during this period largely resulted from aggressive marketing efforts and other effective policies originated and regularly implemented by the overseas subsidiaries over the years.

On the basis of a functional analysis, which also put the value of the trademarks and related elements of marketing know-how into realistic perspective, a licensing expert was able to conclude that each of these parents was entitled to only very low royalties. These conclusions persuaded the IRS to reduce its suggested reasonable royalty between parent and subsidiary by several percentage points. If this becomes generally followed, it will result in a reduction of tax liability by literally millions of dollars.

OTHER MATTERS

The fixing of reasonable royalties as a means of appraising the value of technology has also come up in other types of adversary proceedings. One involved § 3(c)(1)(D) of the Federal Insecticide, Fungicide and Rodenticide Act.[37] This provision applies to companies that manufacture one of the substances regulated by the Act. It allows them to use efficacy and safety data previously collected by another company that has already received approval from the Environmental Protection Agency (EPA) to market a virtually identical product.

The statutory provision involved

33. Ch. 136, 42 Stat. 227 (1921).

34. 26 U.S.C. § 482 (1982).

35. See Note, "Multinational Corporations and Income Allocation Under Section 482 of the Internal Revenue Code," 89 Harv. L. Rev. 1202-38 (1976).

36. For a commentary of this general situation, see Report of the U.S. Comptroller General to Chairman of the House Committee on Ways and Means, "IRS Could Better Protect U.S. Tax Interests in Determining the Income of Multinational Corporations."

37. 16 U.S.C. § 742d-1 (1982) (hereinafter referred to as FIFRA).

was intended to relieve the "me too" applicant from having to duplicate long, onerous, and expensive testing procedures. In return for the privilege of adopting for itself the work of the predecessor — who is likely to be a competitor — the statute provides that the me too applicant is required to pay to the predecessor reasonable compensation.

The Ciba-Geigy *Case*

The landmark case on the point was *Ciba-Geigy Corp. v. Farmland Industries, Inc.*, which was tried before the EPA in January, 1980. Involved here was the appropriation by Farmland of the quantum of safety and efficacy data that Ciba-Geigy data under Section 30(c)(1)(D) of FIFRA, Farmland was able to enter the market immediately after expiration of Ciba-Geigy's patent. This entry occurred three years earlier than would have been possible if Farmland had been required to perform widespread testing, a procedure which would also have been extremely expensive for Farmland.

On the basis of these facts, a licensing specialist, using the date of the patent expiration as the time of the benchmark environment, was able to construct a reasonable royalty scenario based on a pure know-how license. All of the surrounding market circumstances were taken into account, as were certain pertinent historical events involving the parties. This analysis, which also had the advantage of simplicity when compared with detailed studies of the relevant markets submitted by other experts retained by the parties who were academic economists, was favorably received by the trier of fact.

Breach of Contract

In *Western Geophysical Co. v. Bolt Associates, Inc.*,[38] a licensee whose rights had been terminated by a licensor later sued the licensor for breach of contract by termination and won. The original licensee was authorized to grant sublicenses under its agreement, but had failed to so as of its date of termination. The licensee also had a contractual obligation to exert best efforts, but the court did not hold that the licensee breached this undertaking. Between the time of termination and the decision in the breach of contract action, the original licensor succeeded in closing a number of lucrative licenses. This resulted in the payment to it of royalties totaling several million dollars. These licensees were the same companies which should have been approached by the original licensee, with the view to granting sublicenses.

In a separate trial for damages, the original licensee — an active competitor of the later licensees that had paid royalties to the original licensor — sought to recover that portion of the royalties collected that it would have realized if those licenses had been contracted in the form of sublicenses under the original contract. The case also involved other issues that influenced the ultimate decision. On this point, however, a licensing expert was able to testify that because of the nature of the industry, which involved the transfer of various trade secrets as well as patent rights, it is unlikely that the original licensee would seriously have desired sharing information with its competitors pursuant to sublicenses or, indeed, that the several competitors would have wanted to be in contractual privity with the original licensee. It is understood that these insights carried weight with the Master who had been appointed by the court as the trier of fact on this issue.

CONCLUSION

By zealously guarding his or her professional independence and integrity and by rigorously applying the various pertinent tools of the technology transfer discipline, a licensing expert can provide valuable insights to a variety of legal proceedings involving intellectual property rights. These skills can be used in the settlement of litigation as well as in the course of a trial. Since no two proceedings are identical, these exercises add a fascinating new dimension to the challenging licensing profession.

It is interesting to note that theories of damages, based on the structuring of reasonable royalties which could have resulted from hypothetical negotiations between the parties, have "spilled over" from the patent law into trade secret and trademark infringement jurisprudence. The combination of flexibility and basic logic which underlie this approach should therefore inspire continued growth in its use.

The formulation of reasonable royalties in any given set of circumstances is a basic function of the licensing profession. The increased use of this device in intellectual property litigation thus constitutes another area of growth for licensing practitioners.

38. 463 F.2d 101 (2d Cir.), *cert denied*, 409 U.S. 1040 (1972).