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THE EMPLOYMENT OF LICENSING EXPERTISE IN THE ARENA OF INTELLECTUAL PROPERTY LITIGATION

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I. Introduction

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

Expertise in licensing is called upon in two basic categories of disputes. One category involves the valuation of technology, employing general principles of technology transfer, and first-hand knowledge of the industry or the particular business. 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. Combinations of these considerations may also be taken into account when developing an approach to testimony.

*160 The role of expert witnesses in U.S. intellectual property litigation should not be approached lightly or mechanically. The statutory criteria 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 individuals who aid the court in reaching a fair and realistic result to provide an opinion that is logical and takes actual conditions into account.

II. 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 states: [n.1]

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.

The usual assignment of an expert witness within the scope of 35 U.S.C. § 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 or she can influence the deliberations of a judge or a jury. For this reason, the statute expressly allows for expert testimony on the issue of damages.

Recent increases in patent litigation have generated a steady flow of judicial opinions interpreting § 284. This has been especially true since 1982, when the Court of Appeals for the Federal Circuit (CAFC) was created. Since that time, all appeals in patent infringement cases from the U.S. District Courts have gone to the CAFC. The steady stream of CAFC opinions has reinforced the strength of U.S. patents. A much higher percentage of patents are now found to be valid. Also, much larger damage judgments, either in the form of lost profits or reasonable *161 royalties payable to the patentee, or both are being awarded and affirmed on appeal.

The principal architect of this body of jurisprudence was the first Chief Judge of the CAFC, Howard Markey. A careful study of Judge Markey's opinions which interpret and apply § 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., [n.2] which provides authoritative guidelines for practitioners.

Fromson emphasizes 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 ...." Judge Markey commented:

As used in Section 284 'reasonable royalty' is handy shorthand for damages. As the statute provides, the royalty is 'for the use made of the invention 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. [n.3]

Therefore, an expert fulfills his duty by focusing on the consequences of the infringement of the particular invention involved. This differs from previous impressions, which are discussed below. In other words:

. Is the quality of the patented invention 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 it?

. Is the impact of the invention, in the way that it influences the sale of other components, assembled products, and sub-assemblies, directly related to the invention as well as other products, such that the concepts of "the entire market value rule" or "collateral" or "convoyed" sales should be taken into account?

*162 Experts should be asked to evaluate, in light of the patented invention's importance, the level of consequential damages. This analysis calls upon the technical experience of the witness. Fromson shows the importance of expert analysis, where it was stated:

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....'

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. [n.4]

A significant opinion was rendered by the CAFC sitting en banc on June 15, 1995 in Rite-Hite Corp. v. Kelley Company, Inc. [n.5] which sheds further light on several of the foregoing issues.

In acomment about § 284, the CAFC stated that "the language of the statute is expansive rather than limiting. It affirmatively states that damages must be adequate, while providing only a lower limit and no other limitation." [n.6] The CAFC also referred to the U.S. Supreme Court's decision in General Motors v. Devex Corp. [n.7] and to the legislative history behind § 284 [n.8] to the effect that "'adequate' damages should approximate those damages that will fully compensate the patentee for infringement. Further, the Court has cautioned against imposing limitations on patent infringement damages, stating: 'When Congress wished to limit an element of recovery in a patent infringement action, it said so explicitly.'" [n.9] Therefore, the CAFC encouraged courts, juries, and experts to consider the business conditions that have been impacted by the infringement, not necessarily limiting their analyses narrowly to the specific invention taught by the infringed patent.

*163 Judge Markey's reference in Fromson to an "established royalty" refers to the first of thirteen criteria for fixing "reasonable royalties" within the context of § 284 suggested in the landmark Georgia-Pacific case. [n.10] His later remark, relating to reliance on data and events that 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 the use of a "book of wisdom," a concept discussed by the U.S. Supreme Court in a 1933 opinion by Justice Cardozo in Sinclair Ref. Co. v. Jenkins Petroleum Co. [n.11] which stated:

At times, the only evidence available may be that supplied by testimony of experts as to the state of the art, the character of the improvement and the probable increase of efficiency or saving of expense [citations omitted]. This will generally be the case if the trial follows quickly after the issue of the patent. But a different situation is presented if years have gone by before the evidence is offered. Experience is then available to correct uncertain prophecy. Here is a book of wisdom that courts may not neglect. We find no rule of law that sets a clasp upon its pages, and forbids us to look within. [n.12]

It should be emphasized that one may employ the book of wisdom only by looking prospectively from the date of the hypothetical negotiation, not retrospectively. Thus, if no acceptable non-infringing substitute existed at the date of the hypothetical negotiation, but one is developed five years later, but prior to that trial of patent infringement damages, a damages expert can take such a change in circumstances into account in formulating an opinion.

The expert cannot, however, use the book of wisdom to indicate that such technology was shown to be potentially available at the time of the hypothetical negotiation because it was achieved five years later. A subsequent event cannot be used retrospectively to diminish the value of the invention as of the date of the hypothetical. What can be shown is that it required five years, for example, to design around the infringed patent. Such a showing constitutes evidence that there was no readily available, acceptable non-infringing alternative at the date of the hypothetical negotiation.

*164 The employment of the hypothetical negotiation device, now common in these exercises, requires analysts to simulate business conditions that might 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 events would have been in the minds of the hypothetical negotiators.

It is believed that reference should definitely be made by expert witnesses to the "book of wisdom" whether or not such actual, subsequent events were non- foreseeable aberrations. Anything that can contribute to the realism of the exercise should be given serious consideration. Indeed, the reference 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" [n.13] is a further indication that an expert should be considered to have 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.

An earlier admonition by Judge Markey is that "reasonable royalties after litigation" are not necessarily equivalent to royalty rates that might be negotiated in a purely commercial environment. In Panduit Corp. v. Stahlin Bros. Fibre Works, [n.14] a case decided prior to the establishment of the CAFC, the court stated, " T he 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 ... the infringer would be in a 'heads-I-win, tails-you-lose' position." [n.15] This language has frequently been cited with approval in subsequent opinions handed down by the CAFC. [n.16]

It is believed that the foregoing cases provide useful guidance in forming an opinion on reasonable royalties within the context of § 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 one of two things. First, damages calculated as "reasonable royalties" that involve a higher royalty rate or a larger royalty base than would normally be negotiated in a purely commercial setting may be judicially acceptable. Second, recovery of larger amounts by the plaintiff, calculated on a theory other than hypothetically negotiated royalties would be allowable. *165 This other, and presumably greater, amount of damages is normally calculated as "lost profits" to the patentee/plaintiff.

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." [n.17] This is sometimes referred to as the "but for" test and is now regularly cited as the essential foundation for a patentee's remedy based on its lost profits.

Judge Markey's opinion in Panduit provides further details to help determine whether the patentee's lost profits is the appropriate measure of damages. Panduit enumerates four criteria, all of which the patentee must prove if the remedy is to apply. The criteria are:

1. demand for the patented product;
2. absence of acceptable non-infringing substitutes;
3. manufacturing and marketing capabilities to exploit the demand; and
4. the amount of profit the patentee would have made. [n.18]

Often, the second factor is the hardest to prove. Indeed, a careful analysis of this factor, sometimes described as whether there is a commercially viable non-infringing alternative to a patented invention, is considered crucial in most situations when determining the measure of damages. This issue is directly relevant to the strength or breadth of the relevant patented invention being litigated. That is, if the breadth of the patent is insignificant in that easily available non-infringing alternatives exist, then 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. Consistent with the Panduit decision, if this is sufficient to defeat the patentee's damages claim based on a lost profits theory, then 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 an easily avoided invention. The resolution of this question influences the measure of damages.

*166 In another Markey decision, TWM Mfg. Co. v. Dura Corp., [n.19] the court cited several factors which support that no acceptable non-infringing substitutes or alternatives exist. These factors include:

(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; and
(6) the infringer's withdrawal from the business after enforcement of the injunction. [n.20]

There is no mystery why these factors point to the inability to avoid the patent. Several factors were elicited by resort to the "book of wisdom," although this case was decided prior to Fromson. However, there are many different scenarios where 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 this distinction should be reflected by much lower damages awards, probably calculated on a "reasonable royalty" rather than a "lost profits" theory.

The courts have repeatedly used the four Panduit criteria in subsequent decisions. However, these factors have been described as a "nonexclusive standard for determining lost profits." [n.21] In the Mor-Flo case, the CAFC affirmed an allocation where 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. *167 Additionally, the remainder of the patentee's damages were 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.

The Mor-Flo court found an absence of acceptable non-infringing substitutes and that the patentee's production capacity could have satisfied the total market demand. There was an implication that State might have received more than it requested, perhaps lost profits based on the total market shares of State Industries plus Mor-Flo, but the CAFC was content to affirm the claim that State Industries had made. Similar allocations between "lost profits" and "reasonable royalties" may be expected to be applied in future cases.

The difficulty in clearly resolving questions surrounding the existence of acceptable non-infringing alternatives has inspired an additional criterion to the "four part test" which originated with Panduit. In Kaufman Co. v. Lantech, Inc., [n.22] the CAFC reversed a lower court ruling that only eight of forty-four infringing sales qualified for "lost profits" treatment, with the remaining damages to be calculated in the context of a reasonable royalty.

The district court had found that the patentee had not satisfied the third Panduit criteria because it failed to show that all of the defendant's infringing customers would not have accepted a non-infringing substitute. The CAFC found this to be an excessively onerous burden on the patentee. The court stated:

A patentee need not negative every possibility that the purchaser might not have bought another product other than his absent the infringement. Instead, the patentee need only show that there was a reasonable probability that the sales would have been made 'but for' the infringement. Therefore, the issue of whether a patentee deserves lost profit damages is not based on a subjective, individualized inquiry, but on an objective standard of 'reasonable probability.' [n.23]

The CAFC acknowledges that lost profits are not presumed to result automatically from infringing sales. In Kaufman, the court also believed that the circumstances would have satisfied the four Panduit criteria. It added:

The same inference can be compelled by another course. When the patentee and the infringer are the only suppliers present in the market, it is reasonable to infer that the infringement probably caused the loss of profits. [n.24]

*168 The holding in Kaufman is known as the "two suppliers market test." [n.25]

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

[T]he amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the 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. [n.26]

This quoted description of reasonable royalties is the last of fifteen "pertinent factors" cited in the district 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 testimony of qualified experts." The first thirteen factors are all essentially embodied in the fifteenth factor, which many experts usually refer to in actual and hypothetical negotiations. The first thirteen "pertinent factors" are: [n.27]

(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.

*169 (3) The nature and scope of the license, as exclusive or non- exclusive; or as restricted or non-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 non-patented 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.

*170 (13) The portion of the realizable 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.

The above list of factors represents an earnest effort by the court to provide royalty guidelines. The list is not considered exhaustive, nor the only approach to determining reasonable royalties. Litigators and the courts often seem constrained to pay lip service to the "pertinent factors" listed in the Georgia-Pacific case.

The Georgia-Pacific "pertinent factors" have stood the test of time in that they continue to be cited regularly. An updated version of these factors was utilized in the 1992 charge to the jury by Judge Alfred Wolin, in Honeywell v. Minolta. [n.28] This case was subsequently settled by a substantial payment by the defendant, Minolta, to Honeywell, the patentee. This charge adopted virtually verbatim eleven of the fifteen Georgia-Pacific factors, namely numbers 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. First, Honeywell omits the first two Georgia-Pacific factors relating to established royalties and other "comparables." The author does not consider this to be an attempt to down-grade 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 be used by the court, without the need to resort to the other factors.

In restating factor fifteen, 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 instructions 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. [n.29]

*171 Instead of Georgia-Pacific factor twelve relating to standard industry profits, which the author does not favor, the Honeywell judge substituted:

What the parties reasonably anticipated would be their profits or losses as a result of entering into a license agreement. [n.30]

Under this formula, the practitioner and expert witness could take into account relevant industry practices, but would also have the added flexibility to consider any other pertinent business circumstances in making the analysis.

Three additional factors were added by the judge in Honeywell, all of which reflect the same attitude. They are: [n.31]

(1) The relative bargaining position of Honeywell and Minolta;

(2) The extent to which the infringement prevented Honeywell from using or selling the invention; and

(3) The market to be tapped.

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

Royalties in technology licensing are almost always calculated as a function of the volume of sales or use of the property affected by the licensor's issued patents and are often calculated in combination with other intellectual property rights. Within the context of § 284, there has been much discussion as to what constitutes the appropriate base against which the royalty rate which is deemed to be reasonable should be applied. If an infringed patent relates to a key component of an assembled machine or an integrated system, should sales of the complete machine or system, or perhaps defined portions thereof, more appropriately constitute the royalty base?

Courts have long recognized that there should be a logical expansion of the royalty base in these circumstances, and this has given rise to the so-called "entire market value rule." In applying this rule, the question frequently arises as to where one should draw the line. The recently decided Rite-Hite case discusses this issue in detail and sheds new light on the subject.

*172 It should first be noted that the entire market value rule has been applied by the courts in both lost profits and reasonable royalty contexts. [n.32] Furthermore, the Rite-Hite decision is consistent with the "expansive" nature of § 284 indicated by the Supreme Court and cites various cases which indicate a liberalizing trend in applying the entire market value rule. Reference was made to earlier cases [n.33] in which "the patentee was required to show that the entire value of the whole machine, as a marketable article, was 'properly and legally attributable' to the patented feature." A later cited case [n.34] held that damages for component parts used with a patented apparatus "was of such paramount importance that it substantially created the value of the component parts."

The CAFC in Rite-Hite then cites the more recent Mor-Flo and Dura cases for the proposition that the "rule permits recovery of damages based on the value of a patentee's entire apparatus containing several features when the patent- related feature is the 'basis for customer demand.'" [n.35] These criteria are less onerous and more commercially sensitive than the earlier cited cases.

When considering whether to apply the rule, the author frequently inquires if the patented element drives the sale. The word "drives" can be interpreted in many ways, including whether the absence of such a component would make the sale much less likely.

The royalty base cannot be considered in a vacuum, and its interaction with the royalty rate constitutes the multiplied combination whose product is "royalties" and thus "damages" within the context of § 284. Whether or not one decides to employ the entire market value rule, or if a court endorses its use, a particular patented invention has an inherent value to its proprietor and to an infringer. In arriving at such value, the royalty rate and base tend to have an inverse relationship, to the effect that a "generous" royalty base is likely to exert a downward influence on a royalty rate, and vice versa. For instance, in the commercial world, automobile companies tend to pay low royalty rates because they usually provide enormous royalty bases because of the huge number of vehicles produced and sold.

*173 This principle has also been judicially recognized. In Hughes Aircraft Company v. United States, [n.36] a case in which the author's opinion was utilized by the court, it was stated that "it is axiomatic that the larger the potential compensation base to which a royalty rate will be applied, the lower will be the rate."

Thus, refusal or failure to employ the entire market value rule in the context of infringement damages could logically exert an upward influence on the setting of an appropriate royalty rate. This is anticipated in the sixth Georgia-Pacific factor, which refers to "convoyed sales," or "collateral sales" as they are sometimes called.

In footnote 9 of the Rite-Hite decision, at the commencement of its detailed analysis of the entire market value rule, the court states that "[t]his issue of royalty base is not to be confused with the relevance of anticipated collateral sales to the determination of a reasonable royalty rate," [n.37] citing Deere & Co. v. International Harvester Co. [n.38] Deere involved damages for the infringement of a patent on a corn head, which was an attachment to a huge combine harvesting machine. It was found that certain purchasers would decline to purchase one of the infringer's combines if it lacked the patented corn head attachment. These circumstances led the court to affirm a royalty rate that was higher than 100% of the infringer's profitability on the corn head alone.

Counsel and the courts might consider utilizing the reality of convoyed or collateral sales as a tool to determine a royalty base as well as the royalty rate. Several reasons support this idea, including:

. One should not lose sight that the expression "reasonable royalties," in this context, is merely a euphemism for "damages"; anything that can increase the realism and accuracy of the figure resulting from the analysis should therefore be encouraged.

. Convoyed sales can be employed more flexibly than the entire market value rule, which postulates a unitary royalty rate to be employed in connection with a single, defined royalty base. If the patented product and the convoyed items have different pre-tax profitability rates, different royalty rates can be respectively applied against the directly infringing and the convoyed sales, in reflection of such variations in profitability.

*174 . Moreover, if projections from the date of the hypothetical negotiation or insights from the "book of wisdom," indicate that sales of various items were "convoyed" in only a certain percentage of infringing sales, damages can be calculated consistent with these data, thereby calculating royalties that more sensitively and accurately track actual events.

Having had the opportunity to employ the Georgia-Pacific factors for over 20 years, (and more recently having supplemented these with the Honeywell/Minolta concepts) the author recognizes their pertinence and utility in analyzing a wide variety of situations involving intellectual property damages. It is rare that all of these factors are called into play in any given case, but all of them, in different combinations, can help analyze virtually any set of circumstances.

What follows are comments that reflect years of experience in trying to interpret the Georgia-Pacific factors on the basis of the court decisions and the special facts of the cases in which the author has been involved. These comments include:

(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 unenforceability 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 issue is that the hypothetical license being attempted to be negotiated is non-exclusive and "naked," i.e., 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. Since the identical licensing format exists in all hypothetical negotiations under § 284, these conditions should be treated as a normal rather than a negative factor in these circumstances. In many situations, a licensee may not need or desire more than a non-exclusive license, e.g., where it has its own product line in a competitive market and merely wants to continue its business. If non- exclusivity would meet the logical requirements of the infringer, this factor, instead of being *175 considered essentially negative, could be deemed to be neutral, or even favorable to the patentee. The same is

true if the hypothetical licensee has no need for the proprietor's trade secrets, know-how, trademarks or copyrights. Their exclusion from the scope of a license would be irrelevant in such case.

(3) Turning to the above quoted Georgia-Pacific criteria, the first two refer to precedents that, if sufficiently pertinent, could lead to a conclusion that there is an "established royalty." If this is indeed found to be the case, several cases hold that the remaining factors need not be considered. Incidentally, the author 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 definite policy not to grant licenses, which has been confirmed by its uniform behavior, could exert an upward influence on a royalty rate being hypothesized. In such situations, assuming the patentee can satisfy the actual and projected market demand, the patentee could logically argue that it should not grant a license at a rate lower than its incremental profits on increased sales.

The patentee should not be permitted to use this situation, however, to argue that it removes the issue from the reasonable royalty context and that only a lost profits yardstick should be employed. The ground rules of these hypothetical negotiations are that both parties will participate, although the "reluctance" of *176 the patentee, as described above, can be noted and taken into account.

(5) If the parties to a hypothetical negotiation are direct competitors, a patentee may 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 particularly 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. Thus, whether the parties are direct competitors often tends to increase the reasonable royalty rates, although this is not necessarily so in every case.

(6) Convoyed sales have already been discussed as a possible analog to the entire market value rule. The two concepts need not be mutually exclusive, but can be employed in a supplementary manner so as to capture the full measure of infringement damages. Thus, different royalty rates might be assigned to directly infringing sales and to convoyed sales.

(7) 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 each case.

. 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 could be logical; the book of wisdom can be useful in revealing whether or not obsolescence actually occurred;

. A long remaining patent term could help create a larger overall royalty base, which could decrease the applicable royalty rate; or

. If an infringer is actively marketing products covered by a patent scheduled to expire in a year or two, such an infringer might be willing to pay a very high royalty rate for a short duration to avoid a hiatus from the market.

*177 (8) The established profitability of a product made under the infringed patent, its commercial success, and its current popularity are factors that would seem to point to high royalties. The crucial issue, however, is whether such profitability, success and popularity are directly attributable to the patent. If not (e.g., if the infringed patent merely relates to one component of an assembled product, if the patent is easily designed around, or if purchasers are 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 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."

(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 directly influence the royalty rate which could logically be negotiated.

(12) The reference to so-called industry practice is considered pertinent by many, but has traditionally been given relatively little weight by the author, who continues to believe that each specific transaction is sui generis and should be evaluated on a fact specific basis. This is not to say, however, that certain realities concerning particular industries should not be taken into account in these exercises.

. 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 *178 used. In this respect, the CAFC relied on the fact that "Heublein's qualified experts unequivocally testified that the food processing industry did not, to their knowledge, utilize use royalties in connection with machines for producing food"; [n.39]

. Various 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; [n.40] and

. A special environment has long prevailed in the licensing of technology relating to the design and production of electronic chips. This usually has involved 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, especially as a result of a very aggressive licensing and litigation campaign initiated by Texas Instruments.

(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" [n.41] represents the type of equation which the author considers to be most appropriate in negotiating royalty rates. This is the environment in which one can apply the so-called 25 percent rule, favored by the author, both in commercial negotiations, and in implementing § 284. [n.42]

While the district court in the Georgia-Pacific case spelled out all of the foregoing criteria for fixing reasonable royalties in the context of § 284, it must be noted that this decision was partially reversed on appeal to the Second Circuit. [n.43] Indeed, the appellate court did not appear 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 approach."

*179 According to this technique, one starts with the net sales of the infringing articles by the infringer and then deducts the infringer's:

. direct or variable costs in producing the article;

. fixed costs, including allocated overhead to produce the article; and

. "normal" profits to the infringer on similar products. [n.44]

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 the infringer, Georgia-Pacific "a reasonable profit on its sale of striated plywood," [n.45] the infringed product. The analytical approach is designed to do just that. [n.46]

The methodology for assessing and computing damages in patent infringement cases is a choice within the sound discretion of the district court. [n.47] The choice and 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 cases.

In 1993, in a patent infringement case entitled Zygo v. Wyko, [n.48] the author testified as a royalty expert on behalf of the patentee. The trial was bifurcated, and the issue of damages was litigated in a bench trial. The patent covered an element in interferometers, which are sophisticated optical measuring devices with a cost of over $100,000 each. The parties in the relevant market consisted essentially of the patentee and the infringer, and the main theory of damages was lost profits.

*180 There was, however, a portion of the infringer's sales for which the court correctly held that damages should be in the form of reasonable royalties. The author's testimony on the point was not that such royalties should be calculated as a percentage of infringing sales. In that case, the infringer produced its gross and net sales figures, but not its profitability in the form of IBIT (income before interest and taxes). Lacking such information, the author's reasonable royalty opinion was expressed as 50-75 percent of the patentee's lost profits. Numerically, this translated to 18-30 percent of the infringer's sales.

The judge apparently felt uncomfortable with reasonable royalties expressed as a function of lost profits. He decided that "reasonable royalties" should be 25 percent of the defendant's infringing sales, using the entire market value rule to determine the royalty base. This fell at the midpoint of the range of my opinion, when calculated as a percentage of infringing sales.

Another contribution of the Rite-Hite case to the jurisprudence in this area is that the CAFC expressly affirmed a reasonable royalty opinion expressed as half the patentee's lost profits. In Rite-Hite, the patentee would not logically be willing to license this infringer, or anyone else, and did not even license its infringed patent. In this context, the CAFC stated:

It was thus not unreasonable for the district court to find that an unwilling patentee would only license for one-half its expected lost profits and that such an amount was a reasonable royalty. The fact that the award was not based on the infringer's profits did not make it an unreasonable award. [n.49]

Another approach to setting a hypothetical reasonable royalty that also mirrors circumstances that exist in actual negotiations is through "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 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 would be logical for A to seek a license from B, as an accommodation, so as to remove this element of risk. A *181 would probably offer a very low royalty rate (if calculated as a percentage of sales, no more than 1 percent, 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 likely 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 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, 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, [n.50] and also by Professor Dr. Karl Ziegler, in the widespread licensing of his patents for basic polyolegin catalysts, for which he was awarded a Nobel Prize.

This approach was recently employed by the author, who was retained by an accused infringer, in an expert opinion provided in the course of a patent litigation. The case was settled before trial, but the arguments likely influenced the settlement negotiations.

In this case, the patentee had brought an action alleging infringement of eight patents. Of these, one patent was considered very broad on its face and covered the accused infringer's products. However, the attorneys for the accused infringer argued that this patent was invalid. Indeed, the accused infringer had several fact witnesses, as well as documentary evidence, to support its position and was therefore quite confident on this point.

The seven other 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.

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

In these circumstances, it seemed logical 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, the accused infringer, if in possession of all the relevant facts, 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 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. 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 entire market value rule.

It follows that if the infringement does not satisfy the requirements of the entire market value rule, reliance on the analytical method would be inappropriate. Suppose, for instance, that the infringement related to a circuit in a television set, that there were non-infringing substitutes for the circuit, and that customers bought the set knowing nothing about the infringing circuit. The entire market value based on the selling price of the entire television set would be inapplicable 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., [n.51] 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." [n.52]

*183 Aside from the crudities inherent in the analytical method, the verification of figures required for its calculations is essentially the role of a cost accountant rather than an expert in the negotiation of licenses.

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 appropriate.

This is why the 25 percent rule is favored when tackling an expert witness assignment within the scope of § 284. This methodology is now widely utilized in fixing licensing royalties in the commercial world. When modifications have taken into account the various legal precedents interpreting § 284, it has been found to be a sensible and persuasive approach to providing expertise to courts in these matters.

The 25 percent 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 Rotran v. Matsushita, [n.53] the patent was decided to be valid and infringed. The subject matter of the invention was the magnetization of one-piece magnets for DC brushless fans. These devices 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- infringing 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 prejudgment interest) were to be calculated as 30 percent of the cost savings, instead of 25 percent, which was the opinion of the infringer's expert. The patent involved was a product rather than a process patent and is thus an extension of the reasoning underlying the Guardian case.

*184 III. The Role of the Expert

Often the expertise sought in determining damages for infringement cases is that resulting from experience in actual licensing transactions. Experts furnish opinions as to what would be a royalty that the patentee and infringer would logically have been expected to negotiate at the point in time just prior to the commencement of the actual infringement. Within the context of 35 U.S.C. § 284, 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 quantum of damages which the infringer should be required to pay to the patentee. Indeed, the statute contemplates that the court can go even further. Its discretionary powers allow the court the option to:

. award up to treble damages, particularly if infringement is found to be willful;
. award prejudgment interest; and
. require the infringer to pay the patentee's attorney's fees.

When acting as an expert, one should adopt the following attitudes and procedures:

(1) An expert should thoroughly establish independence. This extends well beyond the absence of conflict of interest from past or present involvement. The expert should elicit from the retaining party a commitment of absolute candor. Any information that could reasonably be relevant to the expert in constructing an opinion, positive or negative, should be 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 the same confidentiality procedures such party requires of its own employees or consultants. Thus, the expert will not be inhibited in performing a background study.

*185 (3) A general, preliminary opinion by the expert to the retaining party may reasonably be expected. This indicates 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 released and paid for past services. If the plan is acceptable, a relatively detailed plan of action should be mutually agreed upon.

(4) An expert should require the same degree of familiarity 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 their possession, an expert should be free (within practicable limits) to perform individual investigations to elicit or confirm important facts.

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

Once an expert witness has rendered a reasonable royalties opinion, it is very probable that the trial court will increase the amount in fixing damages that are adequate to compensate for the infringement. Courts have consistently followed 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. [n.54] The expert must consider special circumstances such as:

. where both parties accept the validity and enforceability of the patent;

. where a careful analysis is made whether or not the "entire market value rule" should apply; and

*186 . where 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."

An expert's testimony, per se, might be regarded as sufficiently credible such 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 percent rule to estimate royalties during litigation, though it may not apply in every case. For instance, if it appears there is an established royalty, or that 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 the author favors the use of the 25 percent rule is that it has proven to be a sufficiently flexible, yet logical, means of determining an acceptable range of royalties. This is because experience over the years with the methodology has made it possible to become more sensitive to 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 upsets the scales.

For example, 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 non-infringing alternative available to B. One would think that these are the ingredients of a low royalty rate.

However, 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. Further, assume that B chose not to settle, litigated the questions of patent validity and infringement, and lost.

With the probability of an injunction enforcing A's patent, and therefore disqualification from the market for more than a year, and the time required to retool and undergo UL testing, B would face a serious *187 long-term risk to its business. It was therefore "reasonable" for B to pay a relatively high royalty to A, rather than interrupt its ongoing sales.

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

The expert painted an image of A's owning a "locomotive" (i.e., service X); if B had a nonexclusive right to X, B could render the service essentially at cost and still realize handsome profits from the sale of its ancillary products (likened to a series of freight cars, without a locomotive). B required nothing more than a nonexclusive naked license, since B needed no help in performing X. Indeed, B could have performed X at a loss and still would have realized a handsome profit from its group of ancillary products and services. Such a license of X from A to B could therefore have amounted to corporate suicide for A. Thus, because of this extraordinary element of risk, the expert conservatively allocated 75 percent of the 40 percent profitability pie to A, because that would be realistic in these circumstances.

It is this type of sensitivity which takes into account the peculiar circumstances affecting the parties to the litigation. The 25 percent rule provides meaningful guidance.

At the same time, applications of the 25 percent 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 formulae or analyses, however, 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 percent rule provides a comfortable middle ground that can capture the flavor of what justice requires in a given case, without obscuring the realities with spurious, and frequently irrelevant, technicalities.

There is, however, a methodology that makes the use of the 25 percent rule in the courtroom more easily understandable to judges and juries. The method requires starting with an initial assumption that a reasonable royalty rate will be 25 percent of the infringer's perceived pre-tax profitability rate at the time of the hypothetical negotiation (e.g., a 20 percent pre-tax profitability rate would be calculated as a 5 percent royalty), and then adjusting this figure up or down taking into account the Georgia-Pacific criteria as updated by the *188 Honeywell/Minolta [n.55] "corollary," the relative risks of the parties, and certain realities or practices of the industry concerned. This use of the 25 percent rule is somewhat different than that employed in a commercial setting, but is considered more appropriate within the context of § 284.

While most of an expert's attention on damages 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 persuasive arguments on both sides. A knowledge of the jurisprudence surrounding the entire market value rule is indispensable to perform this task.

Many real-world experiences, including a first-hand knowledge of a variety of licensing strategies, can also help an expert discharge the responsibilities of this role. The "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 the author restricts expert witnessing assignments to less than 25 percent of his professional time; it is very important to remain up-to-date and realistic if one is to be effective as an expert. The best way to stay in "shape" is to remain an active player. 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.

IV. Infringement Claims Against the United States

Holders of U.S. patents may seek damages for alleged infringements by a branch of the Federal Government before the U.S. Court of Federal Claims. [n.56] The relevant statutory provision provides:

*189 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 in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture. [n.57]

In this context, the concept of "reasonable and entire" compensation is essentially equivalent to reasonable royalties. Recovery under § 1498 is based on the theory of the government's right of eminent domain, to compensate the patentee for what it lost by the taking. In this connection, the words "reasonable and entire" have both similarities and differences from the language of § 284. [n.58]

First, the word "entire" emphasizes that the complete remedy of the person whose property has been taken is against the U.S. government and not against a contractor acting with the government's authorization and consent. [n.59]

Second, since compensation under § 1498 is based on principles of eminent domain, reasonable compensation under § 1498 is equivalent to just compensation under the Fifth Amendment. [n.60] This reality highlights two differences between § 1498 and § 284, namely:

(1) A taking by the government, unlike tort law, is not influenced by the alleged fault of the government in using a patented invention. Under eminent domain law, the government has the right to use certain property, with the only issue being the fair market value of the property taken. Thus, the enhancement of damages if such tortious acts would be found to constitute willful infringement under § 284 is not relevant to § 1498.

(2) Also, the Panduit doctrine enunciated by Judge Markey is not present in the context of § 1498. Under the eminent domain theory, the government is given a compulsory, compensable license. [n.61]

*190 Despite these distinctions, it is now settled that the Georgia- Pacific factors may appropriately be employed in determining reasonable and entire compensation under § 1498. This includes the reasoning that the existence of an "established royalty," which is the first of the fifteen factors listed in the district court decision in Georgia-Pacific, is dispositive of the question of reasonable royalties as the measure of damages.

If an established royalty is not found, the methodology of a hypothetical negotiation, at the time the government's taking began, using the other Georgia-Pacific factors, as well as the "book of wisdom" enunciated in the Fromson case, can be employed. [n.62]

Experts can play a similar role in these cases as they can in assessing damages in patent infringement cases between private parties. Their essential task is to help determine the fair market value of the property interest taken at the time of taking, and then provide an opinion on delayed compensation to account for the passage of time between the date of taking and the date the judgment is paid.

The author, who served as the government's expert on damages in Hughes Aircraft v. United States, [n.63] considers it pertinent to an analysis within the context of § 1498 that the historic role the government played in creating the "relevant market" in which the property was taken should be assessed as part of an expert's analysis. This approach was adopted in Hughes, which involved a patented maneuver for placing a *191 satellite in space. The fact that the U.S. government and its numerous agencies had invested billions of dollars in the space program was directly responsible for many of its most basic achievements, and was likely to continue this broad support for the indefinite future, were introduced as factors in the hypothetical negotiation. The inevitable conclusion was that the government was in a strong bargaining position with the patentee.

The court's opinion in Hughes accepted much of the same reasoning as well as the author's conclusion that a reasonable royalty rate to be paid to the patentee was one percent of the Government's cost in procuring the infringing satellites. No express comment, one way or the other, was made about the Government's bargaining position, but the court's general acceptance of my viewpoint leads to the conclusion that such reality was taken into account.

This does not necessarily mean the Government is playing on anything less than a level field in § 1498 proceedings. If a patentee is a widely diversified company whose activities with the Government constitute only a small percentage of its overall business, the past investments by the Government need not weigh heavily on the future relationship between the parties, and may be treated largely as "sunk costs." If, on the other hand, the patentee has chosen as its policy to have the Government as its principal customer, as in the case of a military contractor that has focused its manufacturing and marketing efforts on building military hardware, then this state of affairs should, be taken into account when simulating a hypothetical negotiation in the Georgia-Pacific context.

As previously mentioned, the appellate court in Georgia-Pacific did not rely directly on the fifteen factors discussed by the district court, but instead employed the analytical method. The same approach was taken in the context of § 1498 in Tektronic v. United States. [n.64]

Whatever methodology is employed, the thrust of an expert's 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 "reasonable and entire compensation for such use and manufacture." [n.65]

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 *192 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, constitutes the damages owed 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 fewer contemplated adjustments.

Finally, it is well settled that eminent domain compensation does not include compensation for loss of business opportunities from the taking of property. [n.66] In both Leesona v. United States [n.67] and Decca Ltd. v. United States, [n.68] the Court of Claims recognized that compensation for lost business opportunities cannot be awarded under § 1498. It is unlikely that a court will award lost profits under § 1498, and no such awards have been made for over 30 years.

V. Section 482 of the Internal Revenue Code

Another area in which professional licensing expertise is being employed involves proceedings under § 482 of the Internal Revenue Code. This provision originally appeared as § 240(d) of the Revenue Act of 1921, [n.69] which authorized the Commissioner of the Internal Revenue Service (IRS) to "consolidate the accounts" of related businesses for the purpose of making an accurate apportionment of gains, profits, income, deductions, or capital between or among such related businesses. This provision has not undergone any substantive change since 1921, but was renumbered as § 482 during the 1954 revision of the Code. [n.70]

This provision, and its implementing regulations, have frequently been invoked by the IRS in 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 provided royalty rates 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 would have been structured if they had *193 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 competitive environment postulated for the negotiation of reasonable royalties. [n.71]

According to the Internal Revenue Service Manual on Section 482, a functional analysis is based on the principle that, when analyzing 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, 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?"

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 under scrutiny by the IRS. The profits earned largely resulted from aggressive marketing efforts and other effective policies originated and regularly implemented by the overseas subsidiaries.

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, the author was able to conclude that each of these parent companies was entitled to only modest royalties. These conclusions persuaded the IRS to reduce its suggested reasonable royalty rate between the parent and subsidiary by several percentage points. The royalty bases in both cases were very substantial and were maintained.

VI. Other Matters

A. The Ciba-Geigy Case

Fixing reasonable royalties as a means of appraising the value of technology has also come up in other types of adversary proceedings. *194 One involved § 3(c)(1)(D) of the Federal Insecticide, Fungicide and Rodenticide Act. [n.72] This provision applies to companies that manufacture one of the substances regulated by the Act. It allows companies 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 was intended to relieve the "me too" applicant from having to duplicate long, onerous, and expensive testing procedures. The statute provides that the "me too" applicant is required to pay to the predecessor reasonable compensation for the privilege of adopting for itself the work of the predecessor, who is likely to be a competitor.

The landmark case on the above point was Ciba-Geigy Corp. v. Farmland Industries, Inc., [n.73] which was tried before the EPA. This case involved the appropriation by Farmland of the quantum of safety and efficacy data that Ciba-Geigy had collected on ATRAZINE, a highly successful herbicide on which the basic U.S. patent had expired. By virtue of its appropriation of the Ciba- Geigy data under § 3(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, the author, using the date of the patent expiration as the time of the hypothetical negotiation, 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 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 who were academic economists, was favorably received by the trier of fact.

B. Breach of Contract

In Western Geophysical Co. v. Bolt Associates, Inc., [n.74] a licensee whose rights had been terminated by a licensor later sued the licensor for *195 breach of contract for wrongful termination and won. The original licensee was authorized to grant sublicenses under its agreement, but had not succeeded in doing so as of its date of termination. The licensee also had a contractual obligation to exert best efforts, but the court did not find that the licensee had breached this undertaking. Between the time of termination and the decision against it in the breach of contract action, the original licensor succeeded in closing a number of lucrative licenses. This resulted in the payment of several million dollars of royalties. 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, the author testified 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 to share such 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. These insights carried weight with the Master who had been appointed by the court as the trier of fact on this issue. Thus, competitive and other business realities were recognized as being pertinent to the measure of damages.

C. Relative Values of Patents and Know-How

An additional 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., [n.75] the court held that all of the patents which Deering Milliken Research Corporation (DMRC) had sublicensed 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 began when DMRC sued the sublicensees for nonpayment of royalties. The sublicensees counterclaimed, alleging antitrust violations by DMRC, and these counterclaims were upheld. As a result, DMRC was potentially liable for treble damages on royalties previously collected.

*196 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. As an expert, the author stated 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 with DMRC for far less than their claims of three times the royalties previously paid. In a decision regarding the two claimants who refused to settle, [n.76] the court expressly referred to the 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, but the principles relayed through the expert testimony were nevertheless recognized.

Another case involving familiarity with the licensing discipline was a dispute between du Pont and Shell in the state courts of Delaware. [n.77] This case was based on a license agreement from du Pont to Shell with regard to an agricultural chemical that had been the subject of a worldwide patent dispute between the two companies. Du Pont had prevailed in the United States and a few other jurisdictions, and Shell had been awarded dominant 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 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 desired to incorporate them as an ingredient in its own proprietary agricultural chemical that it planned to introduce. In this latter connection, Union Carbide had requested from du Pont a license under the same patent covered by the Shell agreement, but du Pont had refused.

Shell and Union Carbide then entered into a highly innovative, complicated agreement whereby Union Carbide would make and sell 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 Union Carbide plant, changed title three times. *197 Du Pont sued Shell, alleging breach of the contractual prohibition against sublicensing.

The author's opinion, on behalf of du Pont, was that the Shell-Union Carbide agreement violated the spirit of the du Pont-Shell license and manifested a "loop-hole mentality." This conclusion was based on the theory that licensing agreements usually regulate long term, 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 lawyering 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. [n.78] Aside from the personal gratification involved, it is felt that this attitude is eminently correct and affirms the moral tone that constitutes a cornerstone of the licensing discipline.

D. Damages in Trade Secrets Cases [n.79]

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 three principal theories for recovery by the owner in such situations. These theories are:

(a) Damages resulting from the proprietor's loss, [n.80] intended to compensate the owner for the actual harm experienced from the wrongful use and disclosure of the trade secret. This *198 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.

(b) Damages compensating the proprietor for the wrongdoer's gain, [n.81] 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.

(c) 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, the wrongdoer would have been apprehended before it had sufficient market exposure to earn substantial profit or to wrest many sales from the proprietor. Nevertheless, the effectiveness of Company A 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 B, plus reasonable royalties would seem to be a more appropriate remedy to the proprietor. In the words of one 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. [n.82]

Damages in trade secret cases falls within the discretion of the district court. In many cases, it could provide the most appropriate *199 methodology, and the fact that the "reasonable royalty" approach has been so widely used and accepted in patent cases provides confidence, for its employment in the field of trade secrets damages. There is no reason why the 25 percent rule and the Georgia-Pacific factors could not be used in performing this exercise.

This theory was the basis for the author's testimony in Rockwell International v. Dev Indus. [n.83] This case involved the theft of trade secrets in the form of piece part drawings, which enabled the defendant within a relatively short period of time to manufacture and market a line of printing presses in competition with the proprietor of the trade secrets. Several other issues were covered in the detailed written expert opinion that was submitted on behalf of the plaintiff. The attorneys for the defendant did not disagree with the reasonable royalty contained in the opinion, and the main arguments of the plaintiff were accepted by the jury and the court.

E. Trademarks

With regard to trademark infringement damages in the U.S., the governing provision is § 35 of the Lanham Act, [n.84] which sets forth a cumulative list of remedies available to a proprietor whose trademarks or service marks have been infringed. This includes:

1. Profits; damages and costs; attorney fees

SEC. 35 (15 U.S.C. 1117). When a violation of any right of the registrant of a mark registered in the Patent and Trademark Office, or a violation under section 1125(a), shall have been established in any civil action arising under this chapter, the plaintiff shall be entitled, subject to the provisions of sections 1111 and 1114 of this title, 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. *200 The court in exceptional cases may award reasonable attorney fees to the prevailing party.

2. Treble damages for the use of counterfeit mark

In assessing damages under subsection (a) of this section, 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 15 U.S.C. 1114(1)(a) of this title or section 380 of Title 36 that consists of intentionally using a mark or designation, knowing such mark or designation is a counterfeit mark (as defined in section 1116(d) of this title), 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 Title 26, 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.

In the recent case of Sands, Taylor & Wood Co. v. The Quaker Oats Co., [n.85] the author submitted an affidavit about the damages owed to the plaintiff for the infringement of its mark THIRST AID (R) by Quaker Oats in promoting the sale of its highly successful beverage product GATORADE (R). Analysis was made for reconsideration of the amount of damages to be awarded. For procedural reasons irrelevant to the substance of this analysis, the author's affidavit, which used the same criteria judicially recognized in patent infringement cases, was not admitted. Nevertheless, the author's damages figure was very close to that ultimately adopted by the district court on remand, and included most of the factors that were persuasive to the judge. Since the "reasonable royalties" approach took into account all of the relevant market conditions surrounding the trademark infringement, the author believes this methodology is well suited to measure damages which result from the loss, dilution, or other diminution in the value of trademarks.

It is arguable that the trademark remedy is more generous to the proprietor than the current patent damages process, [n.86] 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 owner 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 may be to structure *201 a hypothetical negotiation with a view to reaching a reasonable licensing deal, much as is provided in the patent jurisprudence. This approach is not inconsistent with trademark law, and indeed has been sparingly employed in the past. [n.87] 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.

VII. 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, the above exercises add a fascinating new dimension to the challenging profession of licensing.

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 inspire continued growth in its use. For instance the same concepts are equally applicable to issues that arise in arbitration and other ADR proceedings.

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

[n.a1]. Robert Goldscheider is Chairman of The International Licensing Network, Ltd. in New York, NY. Authors' special note: The jurisprudence relating to litigation and other means for settling disputes relating to intellectual property rights is an evolving body of knowledge, perhaps made all the more dynamic by its economic impact on our technologically oriented society. As my experience grows as a participant in these proceedings, usually as an expert witness, certain new concepts surface or are redefined which require updated thinking. This article contains my understanding and interpretation of several issues discussed, as of July 1995. In view of the dynamism of the subject matter, some of these thoughts will undoubtedly evolve further in reflection of later judicial interpretations as well as new experiences to which I may be exposed.

[n.1]. 35 U.S.C. § 284 (1987).

[n.2]. 853 F.2d 1568, 7 U.S.P.Q.2d (BNA) 1606 (Fed. Cir. 1988).

[n.3]. Id. at 1574, 7 U.S.P.Q.2d (BNA) at 1612.

[n.4]. Id. at 1574-75, 7 U.S.P.Q.2d (BNA) at 1612-13.

[n.5]. 56 F.3d 1538, 35 U.S.P.Q.2d (BNA) 1065 (Fed. Cir. 1995).

[n.6]. Id. at 1544, 35 U.S.P.Q.2d (BNA) at 1068.

[n.7]. 461 U.S. 648, 653-54 (1983).

[n.8]. H.R. Rep. No. 1587, 79th Cong., 2d Sess. 1 (1946); S. Rep. No. 1503, 79th Cong., 2d Sess. 2 (1946).

[n.9]. 56 F.3d at 1545, 35 U.S.P.Q.2d (BNA) at 1068.

[n.10]. Georgia-Pacific Corp. v. United States Plywood Corp., 318 F.Supp. 1116, 166 U.S.P.Q. (BNA) 235 (S.D.N.Y. 1970), modified sub nom., Georgia- Pacific Corp. v. U.S. Plywood-Champion Papers, Inc., 446 F.2d 295, 170 U.S.P.Q. (BNA) 369 (2d Cir.), cert. denied, 404 U.S. 870 (1971).

[n.11]. 289 U.S. 689, 17 U.S.P.Q. (BNA) 522 (1933).

[n.12]. Id. at 698-99, 17 U.S.P.Q. (BNA) at 525-26.

[n.13]. Fromson, 853 F.2d at 1575, 7 U.S.P.Q.2d (BNA) at 1613.

[n.14]. 575 F.2d 1152, 197 U.S.P.Q. (BNA) 726 (6th Cir. 1978).

[n.15]. Id. at 1158, 197 U.S.P.Q. (BNA) at 731-32.

[n.16]. See, e.g., Stickle v. Heublein, 716 F.2d 1550, 219 U.S.P.Q. (BNA) 377 (Fed. Cir. 1983).

[n.17]. Bio-Rad Lab., Inc. v. Nicolet Instrument Corp., 739 F.2d 604, 616, 222 U.S.P.Q. (BNA) 654, 663 (Fed. Cir. 1984).

[n.18]. Panduit, 575 F.2d at 1156, 197 U.S.P.Q. (BNA) at 730.

[n.19]. 789 F.2d 895, 229 U.S.P.Q. (BNA) 525 (Fed. Cir. 1986).

[n.20]. Id. at 900, 229 U.S.P.Q. (BNA) at 527.

[n.21]. State Industries, Inc. v. Mor-Flo Industries, Inc., 883 F.2d 1573, 1577, 12 U.S.P.Q.2d (BNA) 1026, 1028 (Fed. Cir. 1989); Bio-Rad, 739 F.2d at 616, 222 U.S.P.Q. (BNA) at 663.

[n.22]. 926 F.2d 1136, 17 U.S.P.Q.2d (BNA) 1828 (Fed. Cir. 1991).

[n.23]. Id. at 1141, 17 U.S.P.Q.2d (BNA) at 1831.

[n.24]. Id. at 1141, 17 U.S.P.Q.2d (BNA) at 1831-32.

[n.25]. See Ristvedt-Johnson, Inc. & Cummins-Allison Corp. v. Brandt, Inc., 805 F.Supp. 557 (N.D.Ill. 1992), where it was stated that, in order to prove lost profits, litigants can henceforth rely upon either the four-part Panduit rule, or the two-supplier Kaufman rule. Furthermore, if a fact situation should satisfy both tests, "the inference approaches conclusiveness." This refinement of the law may facilitate and increase the frequency of future findings of lost profits, thereby further increasing the risks of litigation to patent infringers.

[n.26]. Georgia-Pacific, 318 F.Supp at 1120, 166 U.S.P.Q. (BNA) at 238.

[n.27]. Id.

[n.28]. Honeywell v. Minolta, Civil Nos. 87-4847, 88-1624 (D.N.J. Jan. 28, 1992) (jury instruction at 69). It was adopted by Judge Avern Cohn in his charge to the jury in Kearns v. Chrysler Corp., Civil No. 82-70748 (E.D. Mich. June 3, 1993), aff'd, 32 F.3d 1541 (Fed. Cir. 1994).

[n.29]. Id.

[n.30]. Id.

[n.31]. Id.

[n.32]. See Paper Converting Machine Co. v. Magna-Graphics Corp., 745 F.2d 11, 23, 223 U.S.P.Q. (BNA) 591, 599 (Fed. Cir. 1984); Leesona Corp. v. United States, 599 F.2d 958, 974, 202 U.S.P.Q. (BNA) 424, 439 (Ct. Cl. 1979), cert. denied, 444 U.S. 991 (1979).

[n.33]. Garretson v. Clark, 111 U.S. 120, 121 (1884); Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co., 225 U.S. 604, 615 (1912).

[n.34]. Marconi Wireless Telegraph Co. v. United States, 53 U.S.P.Q. (BNA) 246, 250 (Ct. Cl. 1942), aff'd in part and vacated in part, 320 U.S. 1 (1943).

[n.35]. Rite-Hite, 56 F.3d at 1549, 35 U.S.P.Q.2d (BNA) at 1073.

[n.36]. 31 Fed. Cl. 481, 488, 35 U.S.P.Q.2d (BNA) 1243, 1248-49 (1994).

[n.37]. 56 F.3d at 1549 n.9, 35 U.S.P.Q.2d (BNA) at 1072 n.9.

[n.38]. 710 F.2d 1551, 1559, 218 U.S.P.Q. (BNA) 481, 487 (Fed. Cir. 1983).

[n.39]. 716 F.2d 1550, 1561, 219 U.S.P.Q. (BNA) 377, 385 (Fed. Cir. 1983).

[n.40]. 203 U.S.P.Q. (BNA) 884 (E.D. Mich. 1978).

[n.41]. Georgia-Pacific, 318 F.Supp at 1120, 166 U.S.P.Q. (BNA) at 238.

[n.42]. See Robert Goldscheider, The Negotiation of Royalties and Other Sources of Income from Licensing, 36 IDEA 1 (1995).

[n.43]. Georgia-Pacific Corp. v. U.S. Plywood-Champion Papers, Inc., 446 F.2d 295, 170 U.S.P.Q. (BNA) 369 (2d Cir. 1971).

[n.44]. Panduit, 575 F.2d at 1164, 197 U.S.P.Q. (BNA) at 736. In Panduit, the court substituted "the customary profit allowed licensees in the industry at that time" for the third deduction, when referring to the analytical approach.

[n.45]. 446 F.2d at 297, 170 U.S.P.Q. (BNA) at 370.

[n.46]. The rule has since been followed in several cases including Tektronix, Inc. v. United States, 552 F.2d 343, 193 U.S.P.Q. (BNA) 385 (Ct. Cl. 1977); Paper Converting Machine v. Magna-Graphics, 745 F.2d 11, 223 U.S.P.Q. (BNA) 591 (Fed. Cir. 1984).

[n.47]. See, e.g., Yarway Corp. v. Eur-Control USA, Inc., 775 F.2d 268, 275, 227 U.S.P.Q. (BNA) 352, 357 (Fed. Cir. 1985); King Instrument Corp. v. Otari Corp., 767 F.2d 853, 863, 226 U.S.P.Q. (BNA) 402, 409 (Fed. Cir. 1985).

[n.48]. 29 U.S.P.Q.2d (BNA) 1161 (D. Ariz. 1993).

[n.49]. Rite-Hite, 56 F.3d at 1555, 35 U.S.P.Q.2d (BNA) at 1077.

[n.50]. For a description of the development of Dolby licenses, See Ian Hardcastle, Commercializing the Dolby System, 18 Les Nouvelles 197 (1983).

[n.51]. 718 F.Supp. 1310, 13 U.S.P.Q.2d (BNA) 1684 (E.D. Mich. 1989).

[n.52]. Id. at 1313-14, 13 U.S.P.Q.2d (BNA) at 1686.

[n.53]. No. 85-4308 (N.D.N.J. Sept. 3, 1985).

[n.54]. H.R. Rep. No. 1587, supra note 8.

[n.55]. See supra note 28.

[n.56]. 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). It was originally called the Claims Court. See Joseph V. Colaianni, Damages in the U.S. Claims Court, 66 J. Pat. Off. & Trademark Soc'y, 3 (1984).

[n.57]. 28 U.S.C. § 1498 (1987)

[n.58]. See supra note 1.

[n.59]. Leesona Corp. v. United States, 599 F.2d at 967-68, 202 U.S.P.Q (BNA) at 434 (Ct. Cl. 1979), cert. denied, 444 U.S. 991 (1979).

[n.60]. Calhoun v. United States, 453 F.2d 1385, 1395, 172 U.S.P.Q.(BNA) 438, 446 (Ct. Cl. 1972).

[n.61]. Motorola v. United States, 729 F.2d 765, 768, 221 U.S.P.Q. (BNA) 297, 299-300 (Fed. Cir. 1984). Recently, in De Graffenried v. United States, 29 Fed. Cl. 384 (1993), the court performed a further analysis of the nature of § 1498 in holding that a special definition of "prevailing party" for eminent domain proceedings in the Equal Access to Justice Act, 28 U.S.C. § 2412(d)(2)(H) (1980), did not apply to actions under § 1498. The reasoning, in part, was that a patentee is granted rights under a patent subject to the Government's existing right to use a patented invention. Thus, a patentee does not have any expectation of exclusivity in the manufacture or use of the patented invention by or for the Government. The court stated:

Because a patent owner's property rights under the applicable statutory scheme do not include the right to exclude the government from using his or her patented invention, when the government uses a patented invention, it does not 'take' any property interest that belongs to the patent owner. Stated in another way, the government does not have to resort to exercising its sovereign power of eminent domain to utilize a patent owner's patented invention because the statutory framework that defines a patent owner's property rights gives the government authority to use all patented inventions. Thus, the government cannot 'take' what it already possesses. Id. at 387-88.

[n.62]. See Penda Corp., v. United States, 29 Fed. Cl. 533 (1993); ITT Corp. v. The United States, 17 Cl. Ct. 199, 11 U.S.P.Q.2d (BNA) 1657 (Cl. Ct. 1989).

[n.63]. Hughes Aircraft v. United States, 31 Fed. Cl. 481, 35 U.S.P.Q.2d (BNA) 1243 (1994).

[n.64]. Tektronic v. United States, 552 F.2d 343, 193 U.S.P.Q. (BNA) 385 (Ct. Cl. 1977).

[n.65]. 31 Fed. Cl. at 483, 35 U.S.P.Q.2d (BNA) at 1244.

[n.66]. See Mitchell v. United States, 267 U.S. 341 (1925).

[n.67]. Leesona, 599 F.2d at 972-73, 202 U.S.P.Q. (BNA) at 438 (Ct. Cl. 1979).

[n.68]. Decca Ltd. v. United States, 640 F.2d 1156, 1176, 209 U.S.P.Q. (BNA) 52, 67-68 (Ct. Cl. 1980).

[n.69]. Ch. 136, 42 Stat. 227 (1921).

[n.70]. 26 U.S.C. § 482 (1982).

[n.71]. See Multinational Corporations and Income Allocation Under Section 482 of the Internal Revenue Code, 89 Harv. L. Rev. 1202-38 (1976).

[n.72]. 16 U.S.C. § 742(d)(1) (1982) (hereinafter FIFRA).

[n.73]. Ciba-Geigy v. Farmland Industries, FIFRA Comp. Dkt. Nos. 33, 34, and 41 (Opinion of the Judicial Officer, April 30, 1981).

[n.74]. Western Geophysical Co., v. Bolt Assoc., Inc. 463 F.2d 101 (2d Cir.), cert. denied, 409 U.S. 1040 (1972).

[n.75]. Duplan Corp. v. Deering Milliken, Inc., 594 F.2d 979, 201 U.S.P.Q. (BNA) 641 (4th Cir. 1979).

[n.76]. Duplan Corp. v. Deering Milliken, Inc., 211 U.S.P.Q. (BNA) 331 (D.S.C. 1981).

[n.77]. E.I. du Pont de Nemours & Co. v. Shell Oil Co., 498 A.2d 1108, 227 U.S.P.Q. (BNA) 233 (Del. 1985).

[n.78]. 498 A.2d at 1117, 227 U.S.P.Q. (BNA) at 238.

[n.79]. See Melvin F. Jager, Trade Secrets Law § 7.03 (1985); and Michael A. Epstein, Modern Intellectual Property, 134-44 (2d ed. 1989).

[n.80]. See Sperry Rand Corp. v. A-T-O, Inc., 447 F.2d 1387, 171 U.S.P.Q. (BNA) 775 (4th Cir. 1971).

[n.81]. See International Industries, Inc. v. Warren Petroleum Corp., 248 F.2d 696 (3d Cir. 1957).

[n.82]. See University Computing Co. v. Lykes-Youngstown Corp., 504 F.2d 518, 539, 183 U.S.P.Q. (BNA) 705, 716 (5th Cir. 1974).

[n.83]. 925 F.2d 174, 17 U.S.P.Q.2d (BNA) 1780 (7th Cir. 1991).

[n.84]. 15 U.S.C. § 1117 (1991).

[n.85]. 978 F.2d 947, 24 U.S.P.Q. (BNA) 1001 (7th Cir. 1993).

[n.86]. 35 U.S.C. § 284 (1987).

[n.87]. See Boston Professional Hockey Assoc. v. Dallas Cap & Emblem Mfg., Inc., 597 F.2d 71, 202 U.S.P.Q. (BNA) 536 (5th Cir. 1979); Deering, Milliken & Co. v. Gilbert, 269 F.2d 191, 122 U.S.P.Q. (BNA) 355 (2d Cir. 1959) (reasonable royalty trebled); National Bank of Commerce v. Shaklee Corp., 207 U.S.P.Q. (BNA) 1005 (W.D. Tex. 1980) ($75,000 awarded as value of celebrity-author's endorsement); Holiday Inns, Inc. v. Airport Holiday Hotel Corp., 493 F.Supp. 1025, 212 U.S.P.Q. (BNA) 208 (N.D. Tex 1980), aff'd, 683 F.2d 931, 216 U.S.P.Q. (BNA) 568 (5th Cir. 1982) (award of 30 percent of normal franchise fee as damages attributable to infringement).

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