The Patent Prospector

An Open Forum of Patent Information & Opinion

March 24, 2005

Infringement Damages Primer

Courts are willing to grant a patent holder compensation for all economic losses that are reasonably attributable to infringement, but the patent owner shoulders the burden of convincing the court of the causality and measure of loss.

> 35 U.S.C. §284 - 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 made of the invention by the infringer, together with interest and costs as fixed by the court.

In the 1853 case of Seymour v. McCormick[1], over a reaping machine patent, the Supreme Court set the stage for the current §284, finding:

> The basic theory of damages is to make the patent owner whole for losses caused by the infringer's illicit activity. The patent owner is to be restored financially to the position he would have occupied but for the infringement.

The law itself gives little guidance as to a formula for a damage model. In Seymour v. McCormick, the Supreme Court mused that no single formula existed: given the immense variety of patents, particular circumstance must be considered in each case.

The Court of Appeals for the Federal Circuit (CAFC) mused in its 1995 Rite-Hite Corporation v. Kelley Company[2] decision that: "The language of [§284] is expansive rather than limiting. It affirmatively states that damages must be adequate, while providing only a lower limit and no other limitation." At the same time, the Court reminded that damages must be proven.

The concepts for two damage models are implied in §284: 1) "compensate for the infringement" alludes to the notion of lost profits vis-à-vis competition; 2) "in no event less than a reasonable royalty" refers to remuneration regardless of whether the patent owner competes in the marketplace.

The court opined in Harness International. v. Simplimatic Engineering[3]:

> [The] terms ['lost profits' and 'reasonable royalty'] are usually used to describe two analytically different approaches to the determination of damages in patent infringement cases. The first method of determining damages is based on proved actual lost profits of the patentee as a result of infringement. The second method, most commonly used when actual

> lost profits cannot be proved, is to award damages based on a 'reasonable royalty'.

Lost profits applies to any damage model of economic detriment in competition that can be justifiably quantified. Justification is tantamount to "appreciable by the court", which offers wide latitude in argument, with the caveat of backing the argument with convincing market research.

There are two aspects to lost profits: causation and estimation. Estimation also applies when determining a reasonable royalty.

Causation

For causation, a patent owner must establish bases for what was foregone by infringement: increased sales, higher prices, lowered costs/expenses. For a publicly-traded corporation, an attribution of a drop in stock price to infringement is generally considered too remote. This was one of the findings of Interactive Pictures Corp. v. Infinite Pictures, Inc.[4]

In Panduit v. Stahlin Bros. Fibre Works[5], the 6th Circuit Court of Appeals articulated a four-pronged approach to inferring causation:

> To obtain as damages the profits on sales it would have made absent the infringement, i.e., the sales made by the infringer, a patent owner must prove:
> 1) demand for the patented product;
> 2) absence of acceptable non-infringing substitutes;
> 3) the patentee's manufacturing and marketing ability to exploit the demand; and
> 4) the amount of profit it would have made.

Many decisions have applied Panduit, including the famed Polaroid instant camera case.

Leading to one of the largest settlements ever awarded - $900 million, later pared in an accounting revision to $873 million, Polaroid sued Eastman-Kodak[6] for infringement over a ten-year period for seven patents related to Polaroid's instant camera and film technologies. Upon the advent of digital cameras, Polaroid went bankrupt in 2001, while Eastman-Kodak has struggled, but so far managed to survive.

Evidence of causation has been sufficient when a patent owner has lost sales to an infringer under a bidding system.[7]

In the Rite-Hite case, the Court was satisfied with "a reasonable probability" of poached sales. As the Court pointed out, this lowered the bar considerably from requiring that a patentee "negate every possibility" that a potential buyer might have made an alternative purchase. The Court allowed a calculation of lost sales from a Rite-Hite competitive product to the infringing product, where the competitive product didn't even use the patented technology. The plaintiff demonstrated to the satisfaction of the Court that the infringing product gained from infringement in competing against Rite-Hite's product,

regardless that Rite-Hite had itself not employed its own patented technology in its product.

Lost profits owing to patent infringement equates in part to sales gained by the infringer attributable to infringement. The degree to which sales where made owing to product features which infringed was at the core of the Court ruling in Rite-Hite.

The courts often consider as pertinent evidence the infringer's actual profit performance over the duration of infringement.

Infringement can shift the demand curve for a product, resulting in price erosion. In Brooktree v. Advanced Micro Devices[8], over a color video semiconductor chip, the Court agreed to a damage model based in part on a price reduction made by the patentee in response to announcement of an infringing product, but before infringement actually took place. The patentee's price cut was made in order to maintain sales against the sales-freezing effect on the market of a new, improved (and infringing) product.

In Minnesota Mining & Manufacturing v Johnson & Johnson Orthopeadics[9], the Court upheld damages granted based on a finding that the patentee would have been able to raise prices but for infringement.

In Lam v. Johns-Manville[10], where the market was a duopoly, the damage model included a projected drop in sales growth; that is, a reduction in the predicted future rate of sales increase owing to infringement. The court noted that "an award based on projected lost sales is neither remote nor speculative" in backing plaintiff's historically-based market research showing sales trends prior to and after infringement. This exceeds the concept of a royalty on infringing sales, where the royalty rate correlates to the degree to which sales where made owing to the product features which infringed.

In a case where an infringer enters the market with an infringing product, it may not be an exaggerated argument that infringement provided a competitive edge that accounts for all of an infringer's sales. The courts have recognized the price effect of an infringer entering and departing a market, where sales or prices dropped on entry, and rose on departure. Evidence of causation can be found insufficient, however, if the infringer generates a new or different market for products by sales efforts or by altering or improving the patentee's product.

Proving causation becomes more problematic when there are non-infringing alternatives. Particularly in such a circumstance, a patent owner must prove it lost sales.

Causation is more difficult to establish when a patent covers only an improvement on or a small part of the product sold by the infringer.

Price differential can be a significant factor in proving causation, and becomes problematic if the infringer charges significantly less than the patent owner for a comparable product. In the case of Livesay window Co. v. Livesay Industries, Inc.[11], these two suppliers served 95% of the market. The infringer sold at a lower price, but the court ruled this a case of price erosion owing to infringement, as there was brisk demand for the product, and the patented product had universal market acceptance. The lack of non-infringing alternative clarified evidence of price erosion.

A plaintiff must convincingly identify the relevant market segment to establish market share as a factor in causation and damage estimation.[12] This requires an analysis which excludes alternatives to the patented product with disparately divergent prices or substantially different features.

> The patent owner and the infringer [must] sell products sufficiently similar to compete against each other in the same market segment… In other words, for lost profits based on the infringer's sales, a patentee must show that the infringing units do 'not have a disparately higher price than or possess characteristics significantly different from the patented product.[13]

One aspect of the Panduit ruling was that a patent owner must demonstrate having had the capacity in manufacturing and marketing to exploit the demand for the patented technology.

Estimation

A woolly mammoth damage award of $521 million in the Eolas v. Microsoft case was overturned on appeal in March 2005 owing to invalidity. A jury had found that Microsoft's Internet Explorer browser infringed on an Eolas patent, and awarded damages of $1.47 for each copy on 350 million copies of Windows that Microsoft shipped worldwide between November 1998 and September 2001.

In the Eolas case, the district court allowed foreign sales to be included in the damage estimates, based upon 35 U.S.C 271(f), which the Court of Appeals for the Federal Circuit (CAFC) upheld.

> 35 U.S.C §271(f) (1) - Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

Microsoft's Internet Explorer browser code, which came from the U.S., was found infringing, and exported on "golden master disks". Microsoft is appealing this portion of the Court's ruling, to avoid the precedent and in hopes of gaining a loophole in enforcement of §271(f) on its worldwide sales.

The courts focus on a number of factors as probative in ruling on a rate for "supposititious licenses". Georgia-Pacific v. United States Plywood[14] set forth fifteen factors, which have been repeatedly relied upon in subsequent rulings:

> 1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
>
> 2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.

3. The nature and scope of the license, as exclusive or 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 promotor.

6. The effective 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.

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

14. The opinion testimony of qualified experts.

15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringer 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

From www.patenthawk.com/blog/archives/2005/03/patent_infringe.html 15 August 2006

> 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 was willing to grant a license.

These factors generally fall into two groups. The first factor group relates to the conditions in the particular market segment/industry, and includes: 1) prior and existing patent licenses; 2) comparable industry custom; 3) the patentee's licensing policy, and the relationship between the parties. The second factor group relates to the profitability of infringement: 4) the infringer's anticipated profits; 5) potential workarounds (the prior art and patent neighborhood); 6) collateral benefits and convoyed sales; 7) the apportionment of improvement from infringement; 8) commercialization status and commercial success; 9) duration of the patent in force. The second group brackets a range of reasonable royalty rates, since, in a negotiated licensing settlement, a patent owner would insist on something more than a minimum rate for a profitable invention, while a potential licensee would concede nothing more than a portion of the projected profit, accounting for the risk of the profit ever being realized.

The court ruling in SmithKline Diagnostics v. Helena Laboratories[15] affirmed that a finding of damages is one of fact, within the purview of the district court. This opinion has been seconded in several Federal Circuit cases.

A judge does not select the methodology of lost profits or royalty, but does rule on the permissibility of the proposed accounting treatment.

In Kalman v. Berlyn[16], the court allowed the patent owner to apply its pre-infringement price level in calculating damages on the theory that the infringer should not profit from any price erosion caused by infringement.

Courts grant considerable weight to historical evidence of the terms of licensing of the patent, even though such licenses fail to meet the standards for an established royalty.

In SmithKline Diagnostics v. Helena Laboratories[15], the Federal Circuit affirmed a district court grant of a 25% royalty rate, even though the patentee had licensed similar products at 3% and 5%. In this case, the patentee "was an unwilling licensor" who "had never licensed the [patented] technology." The supporting rationale was that the patented technology was an immediate commercial success, satisfying a long-felt need, and the patentee had no intention of licensing, preferring to maintain exclusivity by refusing to grant licenses.

The concept of reasonable royalty revolves around a rate that willing parties might negotiate for a license without the threat of a suit, or resulting from litigation. The courts have developed reasonable royalty as a means of providing a just recovery to a patent owner who can not, for lack of evidence or other reasons, prove lost profits or an established royalty. A reasonable royalty is judicially defined as that amount which would have been set based upon a hypothetical negotiation between willing parties. The single most influential factor in measurement is prior or existing licenses.

A reasonable royalty must be founded upon evidence, not conjecture. The courts have a conservative bias in absence of evidence. Nonetheless, the courts have recognized that

a patent owner should not be penalized by an infringer's failure to keep records necessary to compute a royalty award.

There is a difference between: 1) the existence of damage to a patentee from infringement, and 2) the evidentiary support for a particular rate or quantity as a reasonable royalty.

In considering reasonable royalty rate, courts give weight to the existence of non-infringing alternatives available to the infringer. This is the concept of the patent neighborhood: a patented technology lacking a market-acceptable alternative is a mansion, the finest property, and so justly prized, while a shanty of a patent is one that could have been avoided by making a comparably acceptable different (non-infringing) choice.

The theory with regard to royalty rate is that a potential licensee would be less disposed to a high royalty rate for a shanty patent. There is a lack of consistency in court rulings regarding the standard of adequacy of an alternative, and on the time when an alternative must have been available.

Infringement may have collateral benefits, and the courts have enhanced rewards in such cases. There may be "convoyed" sales of associated products, such as parts, supplies, and accessories, which could be expected to flow from selling an infringing product.

The significance of a patent to a product is relevant in determining reasonable royalty. The royalty rate depends upon answering the question of how significant the patented feature was in the infringer's commercial success.

Sometimes infringement of a single feature that is only a portion of a product can provide a competitive edge justifying an award based upon the entire product. In Bose v. JBL[17], the infringing product was a loudspeaker, and the infringement was of an improved "port tube" to enhance bass response; this infringing feature being only a portion of the product. The Federal Circuit held, against appeal by the defendant regarding damage calculation, that there was substantial evidence to award "based upon the entire value of the loudspeakers."

The state of development and commercial success are measures to be accounted. If the patented product or process provided a fully developed feature, an increased rate is justified. For a paper technology requiring further research and development for commercialization, a discounted rate may be expected.

In calculating incremental profits lost, the marginal costs of increased sales, if there had not been infringement, should be included. Most court decisions have ruled it improper to allocate a portion of fixed or overhead costs to the hypothetical increase in sales. Likewise, the taxes on increased sales should be deducted as a cost only if the damage award escapes similar taxation.

Whether a patent owner may collect prejudgment interest, that is, interest on damages prior to judicial determination, has a complex case law history. But in 1983, the Supreme Court resolved the divergent views of lower courts by holding that "prejudgment interest

should ordinarily be awarded where necessary to afford the plaintiff full compensation for infringement."[18]. Recent court decisions indicate that trial courts have discretion whether to award compound or simple interest. Most courts apply some form of compounding, whether annual, quarterly, monthly, daily, or variable.

The court found two aspects to royalty in SmithKline Diagnostics v. Helena Laboratories[15]: "The appropriate measure of compensatory damages may be (1) lost profits, (2) an established royalty, or (3) a reasonable royalty, depending on the circumstances of the case."

The basis for an established royalty are prior actual licenses for comparable products. This establishment is of a uniform rate via negotiation and paid by a sufficient number of licenses. As with reasonable royalty, an established royalty rate derives from the outcomes of willing parties licensing without the threat of a suit, or resultant from litigation.

As to an established royalty, profitability is reflective of industry segments, and so, correspondingly, what might pass muster for an established royalty depends upon definition of market segment. Food-related patents tend to garner a relatively low royalty rate, just shy of 3%, consumer goods 5%, while software reaps around 7-8%.

An established royalty sets the minimum recovery from infringement, not necessarily the maximum. Determining a maximum rate has been a complex issue for the courts. A general guideline has been that the existence of an established royalty for comparable acts precludes a higher recovery for those same acts based on a theory lost profits or other damages to the patent owner.

Courts have granted mixed or split awards, using lost profits for some lost infringing sales, and lost royalties for other sales. In H.K. Porter v. Gooyear Tire & Rubber[19], reasonable royalty and lost profits were awarded for different time periods. In Swan Carburetor v Nash Motors[20], lost profits were granted on devices sold separately, while an established royalty was applied on devices sold mounted on automobiles.

Courts award increased damages for willfulness. Treble damages represent the maximum award for willfulness, not an automatic ratchet. The courts have found increased damage awards inappropriate when the infringer has mounted a good faith and substantial challenge to the validity of the patent or existence of infringement. Lacking evidence of counsel, in the form of an opinion, suggests willfulness, but does not mandate it.

The exact purpose of augmenting damages, whether to punish the infringer, or compensate the patentee, remains in-the-mix, but court opinions indicate both.

---

1. Seymour v. McCormick, 57 U.S. (16 Howard) 480 (1853)
2. Rite-Hite Corporation v. Kelley Company, 56 F.3d 1538, 35 USPQ 2d 1065 (Fed. Cir. 1995)
3. Harness International, Inc. v. Simplimatic Engineering Co., 819 F.2d 1100, 1112, 2USPQ2d 1826, 1835 (Fed. Cir. 1987)
4. Interactive Pictures Corp. v. Infinite Pictures, Inc., 274 F3.d 1371, 1381, 61, USPQ2d 1152, (Fed. Cir. 2001), *cert. denied*, 123 S.Ct. 112 (2002)
5. Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.,575 F.2d 1152, 197 USPQ 726 (6th Cir. 1978)
6. Polaroid Corp. v. Eastman-Kodak, Inc., 16 USPQ2d 1481 (D. Mass. 1990), 17 USPQ2d 1171 (D. Mass. 1990)
7. Wallace & Tierman Co. City of Syracuse, 45 F.2d 693, 695 (2d Cir. 1930), affirmed in later cases
8. Brooktree v. Advanced Micro Devices, 977 F.2d 1555, 24 USPQ 2d 1401 (Fed. Cir. 1992)
9. Minnesota Mining & Manufacturing Co. v Johnson & Johnson Orthopeadics, Inc., 976 F.2d 1559, 24 USPQ 2d 1321 (Fed. Cir.

1992)
10. Lam, Inc. v. Johns-Manville Corp., 718 F.2d 1056, 219 USPQ 2d 670 (Fed. Cir. 1983)
11. Livesay window Co. v. Livesay Industries, Inc., 251 F.2d 469, 116 USPQ 167 (5th Cir. 1958)
12. BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc. 1F3d 1214, 1218, 27 USPQ2d 1671, 1674 (Fed. Cir. 1993)
13. Kaufman Co. v. Lantech, Inc., 926 F.2d 1136, 1142, 17 USPQ2d 1828, 1832 (Fed. Cir. 1991)
14. Georgia-Pacific Corp. v. United States Plywood Corp., 381 F.Supp. 1116, 1120, 166 USPQ 235 (S.D.N.Y. 1970), *modified and aff'd*,
446 F.2d 295, 170 USPQ 369 (2d Cir. 1971), *cert. denied*, 404 U.S. 870 (1971)
15. SmithKline Diagnostics, Inc. v. Helena Laboratories Corp., 926 F.2d 1161, 1163, 17 USPQ2d 1922, 1924 (Fed. Cir. 191)
16. Kalman v. Berlyn Corp., 914 F.2d 1473, 16 USPQ2d 1093 (Fed. Cir. 1990)
17. Bose Corp. v. JBL, Inc., 274 F.3d 1354, 61 USPQ 2d 1216 (Fed. Cir. 2001)
18. General Motors Corp. v. Devex Corp., 461 U.S. 648, 217 USPQ 1185 (1983)
19. H.K. Porter Co. v. Gooyear Tire & Rubber Co., 536 F.2d 115, 191 USPQ 486 (6th Cir. 1976)
20. Swan Carburetor Co. v Nash Motors Co., 133 F.2d 562, 56 USPQ 341 (4th Cir. 1943), *cert. denied*, 320 U.S. 762 (1943)

Posted by Patent Hawk at March 24, 2005 11:07 AM | Damages