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## DAMAGES IN PATENT SUITS

by  
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### I. INTRODUCTION

Under common law, monetary damages were awarded in patent infringement suits to compensate the owner of the patent for the infringement. Today, 35 U.S.C. § 284 codifies the measure of compensatory damages in patent actions. According to 35 U.S.C. § 284:

1. Upon a finding for the claimant the court shall award the claimant damages
  1. Adequate to compensate for the infringement
  2. But in no event less than a reasonable royalty for the use made of the invention by the infringer
  3. Together with interest and costs as fixed by the Court
2. When the damages are not found by a jury, the court shall assess them (
3. In either event, the court may increase the damages up to three times found or assessed

The patentee has the burden of proving any monetary damages. Two principal measures of compensatory damages are recognized, namely: (1) lost profits and (2) a reasonable royalty. Under the first approach, the patentee is awarded profit's lost as a result of the defendant's infringement. When lost profits cannot be proven, the patentee recovers a reasonable royalty.

Design patents have their own unique measure of compensatory damages, namely, the infringer's profits. 35 U.S.C. § 289 (1982).

In addition to compensatory damages, the patentee may also obtain collateral damages in the form of prejudgment interest and reasonable attorney fees. These are important forms of damages, as the total amount of prejudgment interest may often exceed the amount of damages. The court may also award punitive or exemplary damages up to three times the assessed damages.

### II. Lost Profits

#### 1. The Panduit Lost Profits Test

The lost profits measure is based on the question, "Had the Infringer not infringed, how much would the Patent Holder-Licensee have made?" Damages in the form of lost profits may be awarded, "without regard to the question whether the defendant has gained or lost by his lawful acts." The patentee must prove there was a "reasonable probability" that the patentee would have achieved higher profits, absent the acts of infringement. Traditionally, a higher standard of proof was required, namely, "the strictest proof that the patentee would actually have earned and retained those sums in its sales . . ." *Tektronix, Inc., v. United States*. This high standard was lowered to the present "reasonable probability" standard by the Federal Circuit. See *King Instrument Corp. v. Otari Corp.*; *Gyromat Corp. v. Champion Spark Plug Company*. The reasonable probability standard is similar to a preponderance of the evidence standard.

In *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, the Sixth Circuit defined a four-part analytical test that may be used to prove entitlement to lost profits. Under this test, the patentee must show:

1. that there is a demand for the patented product;
2. the patentee has the marketing and manufacturing capability to meet that demand;
3. an absence of non-infringing alternatives; and
4. the amount of profit which the patentee would have earned on the lost sales.

The validity of this test was subsequently affirmed by the Federal Circuit. In *Lam, Inc. v. Johns-Manville Corp.*, the Federal Circuit added a "but-for" causation requirement to prove lost profits. The court held that the patentee must prove that "but for" infringement, the patentee would have made all of the sales of the infringer, charged higher prices or incurred lower expenses. The "but for" requirement "only requires the patentee to provide proof to a reasonable probability that the sale would have been made but for the infringement." The "but for" requirement may be established by showing any of the following:

1. the patent owner and infringer were the only suppliers of the product;
2. the patentee lost the sales to the infringer's bids;
3. the patentee's sales/prices fell and rose with the infringer's entry and departure from the market;
4. the infringer was a former customer of the patentee or a supplier to such a former customer;
5. the lack of noninfringing competitive products and producers; or
6. the infringer targeted a different market by charging a lower price or improving the patented product.

There may be a presumption that the patentee lost sales equal in quantity to those actually made by the infringer in situations where all of the following are met:

1. the patentee and infringer were the only suppliers of a unique product, i.e., there is an absence of acceptable non-infringing alternatives;
2. there is a demand for the patented product; and
3. the patentee could have acquired the capacity to meet the full demand.

## 7. Demand

The demand requirement for the patented product is easily met, under the rationale that the patentee would not be suing if there was no demand for the patented product. It may be shown by proof of sales of the patented product by the infringer.

## 8. Ability to Meet Demand

The courts analyze the patentee's ability to meet the demand along two lines, (1) the ability to manufacture the goods, and (2) the ability to market the goods. The patentee's ability to manufacture the goods may be shown by proving that the patentee had the "potential capability" to make the infringer's sales, that the patentee could have subcontracted the work, or that the manufacturing facilities of the patentee could have been made adequate. The marketing prong focuses on the similarities and dissimilarities of the plaintiff's and defendant's markets, and the size of their marketing divisions.

## 9. Lack of Non-Infringing Substitutes

Traditionally, the requirement of lack of non-infringing substitutes was loosely construed. Acceptable non-infringing substitutes were readily found, thereby barring recovery of lost profits.

However, the requirement of proving absence of non-infringing substitutes has been significantly eroded by recent cases. Acceptable non-infringing substitutes include only those products which contain all the elements or the advantages of the invention. In limiting the class of acceptable substitutes to only those that contain the advantages of the patented product, the courts have effectively restricted the market of the patented product.

For example, in *Radio Steel and Mfg. Co. v. MTD Products, Inc.*, the court found that substitute wheelbarrows which incorporated "some" but not "all" of the elements of the invention were not "acceptable non-infringing substitutes." The Federal Circuit's rationale was that (1) none of the alleged substitutes had all the beneficial characteristics of the patented device, and (2) "a product lacking the advantages of that patented can hardly be termed as a substitute 'acceptable' to the customer who wants those advantages."

As another example, in *Polaroid Corp. v. Eastman Kodak*, Kodak argued that conventional photography was an acceptable substitute for instant photography. The court disagreed because conventional photography lacked advantages of instant photography.

In these situations, survey data directed to analyzing the underlying basis of consumer preferences may be useful. The patentee still would have the burden of showing that the consumer purchased his goods

because of certain advantages over other potential substitutes. Lack of non-infringing substitutes may be also proven by showing that the demand for the product continued to rise steeply (for example, 300%/year) even though the patentee increased the price of the product.

Even if the market contains acceptable noninfringing substitutes, the patentee's market share prior to infringement may be used to prove that the patentee would have made some of the infringer's sales. For example, in *State Industries, Inc., v. Mor-Flo Industries, Inc.*, the Federal Circuit accepted evidence of the patentee's market share to prove that the patentee would have made at least a percentage of the infringer's sales had there been no infringement. Proof of market share allows the patentee to obtain lost profits damages in the ratio of the patentee's original market share to the patentee's diluted market share after the infringement. The patentee is further entitled to a reasonable royalty for the remainder of the infringer's sales.

One word of caution. The plaintiff should bear in mind that proving a complete absence of acceptable non-infringing substitutes may harm the plaintiff if the jury holds this to be an admission that there is no "relevant submarket" as required under anti-trust law. This could expose the plaintiff to substantial anti-trust liability if the patent-in-suit is lost. Thus, the quantum of proof of the lack of acceptable substitutes must be balanced with some showing of marginally acceptable substitutes.

## 12. Proving Lost Sales and Lost Profits

The patentee must also establish a reasonable approximation for the amount of lost profits, by showing (1) loss of sales, and (2) the profits associated with these lost sales.

### 1. Lost Sales

To establish lost sales, the patentee must first prove the total volume of infringing items sold by the defendant. This number may be determined from summary sales records, or by summing the defendant's customer invoices or production records.

The next step is to prove the volume of sales lost by the plaintiff due to the infringer's sales. The infringer's sales set the upper limit of the patentee's potential lost sales. The infringer can lower the estimate of the volume of lost sales by showing that he or she expanded the market or sold the infringing product to loyal customers who would not purchase the product from the patentee. Market expansion may be shown by establishing the superior marketing ability of the infringer, dissimilar distribution channels, separate geographical locations or by showing that the infringer targeted a different segment of the market.

Typically, the defendant's selling price is used to estimate the dollar value of sales. However, the defendant may reduce this number by showing that his product was worth more because he improved the product or provided better credit or warranties. The plaintiff may increase the dollar value by proving that the infringer's entrance into the market depressed the prices of the patentee's products.

The patentee must then show that he had the production capacity to produce and sell the number of infringing units sold by the defendant. Evidence as to the patentee's actual production capacity, percentage of capacity utilized, production peaks, increase of capacity by using extra shifts, and the ability to expand capacity are all relevant. The defendant can reduce the lost sales estimate by proving that the plaintiff lacked the capacity to produce all or some portion of defendant's sales.

2. Lost Profits The amount of the patentee's lost profits is the amount of incremental profits, excluding fixed costs. As stated by the Federal Circuit: [This] approach recognizes that it does not cost as much to produce unit M + 1 if the first M (or fewer) units produced already have paid the fixed costs. Thus, fixed costs--those costs which do not vary with increases in production, such as management salaries, property taxes, advertising, and insurance--are excluded when determining profits.

Once the patentee's lost sales revenue has been proven, it is then necessary to estimate the profits that would result from these sales figures. Variable or incremental costs, i.e. those that change as the volume of goods manufactured increases, must be deducted from the total lost sales revenue, according to the following formula:

$$\text{Lost Profits} = \text{Incremental Sales} - \text{Incremental Costs}$$

The recoverable profit can be substantially higher than the actual profit of the patentee/infringer. In industries with higher overhead costs, fixed costs may account for up to 50% of the selling price; this 50% is not discounted from the estimated selling price. Thus, the defendant's liability for the sale of infringing goods may far exceed any net profit earned on those goods.

A major problem in this equation is proving the actual incremental cost. Only costs caused by the additional sales should be deducted from the sales revenues. Therefore, incremental costing is the proper approach to determine the amount of the deduction. Both the technology and the size of the increment and sales determine which costs are relevant.

#### 14. Other Factors

The plaintiff can increase the amount of damages by showing (1) loss of sales of tag-along unpatented products which were usually sold along with the patented product, (2) competition from the infringer which caused the patentee to lower prices, (3) the patentee's relationship with distributors and dealers was disrupted by the infringement, or (4) the poor quality of the infringing device caused loss of goodwill for the patentee. These factors provide additional grounds for recovery.

##### 1. Price Reductions

The patentee can claim lost profits in the form of price reductions necessitated by the infringing activity. In *King Instrument Corp. v. Otari Corp.*, the Federal Circuit affirmed an award of lost profits based on the patentee's profit margin at the time the infringement began.

##### 2. Collateral or "Caravan" Sales

The patentee can also recover profits lost as a result of lost collateral sales of unpatented products. Traditionally, this measure of recovery was not allowed because it would expand the patent monopoly, and so violate antitrust and patent misuse rules. However, the Federal Circuit allows recovery based on the total value of the order which the patentee would have obtained on both the patented and unpatented products. The patentee may recover lost profits for any collateral sales the patentee would anticipate making in combination with the patented invention. In *Kori Corp. v. Roco Marsh Buggies and Draglines*, the Federal Circuit calculated lost profits based on the entire market value of infringing amphibious vehicles which incorporated a patented pontoon. The court reasoned that the financial and marketing dependence on the patented item provided sufficient proof of causation to award lost profits on the entire product. In *King Instrument*, the court held that lost profits on spare parts which were normally sold as part of a package with the patented product could be recovered.

### III. Reasonable Royalty Rate

#### 1. Factors Determining A Reasonable Royalty

A reasonable royalty rate is used to calculate damages when the patentee cannot prove the amount of lost profits. A reasonable royalty rate is that which a willing licensee would agree to in hypothetical negotiations with the patentee, in order to sell the item at a reasonable profit:

"Determination of a 'reasonable royalty' after infringement, like many devices in the law, rests on the legal fiction. Created in an effort to 'compensate' when profits are not provable, the "reasonable royalty" device conjures a 'willing' licensor and licensee, who like Ghosts of Christmas Past are dimly seen as 'negotiating' a 'license.' There is, of course, no actual willingness on either side, and no license to do anything, the infringer being normally enjoined . . . from further manufacturing, use, or sale of the patented product.

A reasonable royalty rate must be proven with evidence and should not be speculative. In *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, the court identified fifteen market-based evidentiary factors which may be used to calculate a reasonable royalty rate. These factors fall into the four basic categories comprising (1) comparable royalty rates; (2) the hypothetical profit to the licensee/infringer; (3) the patentee's losses that would result from granting a license; and, (4) the bargaining power of each party in a hypothetical negotiation. The fifteen factors are as follows:

1. The licensing royalties received by the patentee.
2. The rates paid by the licensee for the use of comparable patents.
3. Whether the scope of the license is restricted, i.e. exclusive or nonexclusive, or geographically restricted.
4. Whether the patentee has a policy of refusing to license or of granting licenses only under restrictions.
5. The commercial relationship between the patentee and licensee -- are they competitors in the same territory and in the same line of business ? Are they inventor and promotor?
6. Does the sale of the patented invention promote collateral sales of unpatented products?
7. The duration and term of the patent and license.
8. The profitability and success of the invention and the value of the license to the infringer.
9. The utility and advantages of the invention over the prior art.
10. The nature of the patented invention and its commercial embodiment.
11. The extent to which the infringer used the invention and the value of that use.
12. The portion of profit or sales price that is customarily in the business or for use of the invention.
13. The portion of profit that should be credited to the patented invention as distinguished from the non-patented elements of the old product.
14. The opinion of qualified experts.
15. The royalty rate that a licensor and licensee would have agreed upon in hypothetical and reasonable negotiations.

If a jury trial is chosen, one problem is instructing the jury on how to determine a reasonable royalty. Since there is no "right" way to assess a reasonable royalty, the jury should be instructed as to the Georgia-Pacific factors, and further instructed to consider any additional points raised by the evidence. The jury must also determine what weight to attach to each factor. The testimony of expert witnesses is a valuable tool which has been traditionally used to convince juries of the value of a reasonable royalty.

In some cases, the total damages calculated from a reasonable royalty rate may exceed the lost profits measure of damages. This occurs in situations where the patentee is a relatively small or new company lacking a significant customer base and distribution channels. The patentee's overhead to enter into the market will be relatively higher; thus, profits are relatively small. If the infringement is done by a large, well-established company with a significant customer base, the company may sell a large volume of goods. The small patentee may not be able to prove that he has either the financial or managerial skill to sell this large volume of goods. Thus, he would be precluded from claiming the full volume of lost sales and from claiming the higher profit achieved by the defendant. In this situation, a reasonable royalty approach, typically one-fourth to one-third of the profit earned by the infringer, may well exceed the patentee's lost profits.

#### **IV. The Use of an Established Royalty to Determine a Reasonable Royalty**

An established royalty is a freely negotiated royalty rate established with a sufficient number of licensees. For licensing agreements to set an established royalty rate, the agreements must be:

1. Secured before the infringement,
2. paid by a sufficient number of licensees so as to indicate its general acceptance and reasonableness,
3. uniform in terms and granted for comparable rights and to comparable licensees, and
4. not bid under threat of suit or in settlement of litigation.

Thus, a single pre-litigation license to a minor competitor with a 1% royalty rate, in conjunction with two pre-litigation offers to the defendant also at a 1% royalty rate, did not create an established royalty rate of 1%. Neither do mere offers of licensing rights create an established royalty rate. In Hansen, offers of licenses at a royalty rate of 2.5% of sales price did not prevent the court from affirming a reasonable royalty in the amount of 1/3 of the savings realized by the defendant in using the patented snow making process.

It has been argued that proof of prior licensing agreements should be excluded under Rule 408 of the Federal Rules of Evidence, because it provides evidence of compromises and offers to compromise. According to this argument, the majority of licensing agreements are entered into to compromise threatened or actually litigated patent infringement suits. Thus, licensing agreements should be excluded under Rule 408 of the Federal Rules of Evidence which states:

Evidence of (1) furnishing or offering or promising to furnish, or (2) accepting or offering or promising to accept, a valuable consideration in compromising or attempting to compromise a claim which was disputed as to either validity or amount, is not admissible to prove liability for or invalidity of the claim or its amount. Evidence of conduct or statements made in compromise negotiations is likewise not admissible. This rule does not require the exclusion of any evidence otherwise discoverable merely because it is presented in the course of compromise negotiations. This rule also does not require exclusion when the evidence is offered for another purpose, such as proving bias or prejudice of a witness, negating a contention of undue delay, or proving an effort to obstruct a criminal investigation or prosecution.

Traditionally, the royalty rates of comparable licensing agreements were given substantial weight in determining a reasonable royalty rate. However, in recent cases, this factor given less than a decisive weight. For example, in *Bio-Rad*, the Court affirmed a 33% royalty rate despite proof of comparable licensing agreements with royalty rates in the 3 to 10% range.

## **V. Obtaining Lost Profits and Royalties**

Under some circumstances, the patentee may be awarded both lost profits and a reasonable royalty as a measure of compensatory damages. This typically occurs when the patentee can prove lost profits as to only a portion of the infringer's sales; as to the remaining sales the patentee must accept a reasonable royalty. For example, in *State Industries, Inc., v. Mor-Flo Industries, Inc.*, the court stated: "The award may be split between lost profits as actual damages to the extent that they are proven and the reasonable royalty for the remainder."; *H.K. Porter Co. v. Goodyear Tire and Rubber Co.* In *State Industries*, the patentee was awarded reasonable royalties for one time period, lost profits for another time period.

## **VI. Use of Expert Witnesses**

Experts may be used to answer the question, "had the infringer not infringed, what would the patent holder have made?" Since damages cannot be speculative and the patentee must demonstrate by a reasonable probability the amount of lost profits, expert witnesses are useful in providing meaningful evidence.

An expert economist can be used to establish damages resulting from a "price reduction" forced by the infringer. The plaintiff must show demand for the product and the amount of profits lost. An economist can be used by the defendant to show that the price of a product is inversely proportional to the demand; in other words, that as the price increases, demand for the product will be reduced. On the other hand, plaintiff's expert can prove that demand is not completely dependent on price as in the case with most less than ideal market situations. An economist can also be used to ascertain the "value of the invention" when determining a reasonable royalty.

An accountant/CPA can be used to determine the approximation of profits by doing an analysis of the costs, return projections, variable and fixed costs, etc. The accountant can also be used to analyze increase in costs per unit sales.

A marketing expert is useful in deciding the issue of whether there are acceptable non-infringing substitutes. The marketing expert can distinguish the class of purchasers of the patentee and the infringer. Moreover, a survey of the relevant purchasing group can also be used to prove the nature of the class or purchaser motivation.

A patent lawyer is also an useful expert. Patent lawyers are most often used to prove the amount of "reasonable" royalty. When using such a witness, it is important to lay a sufficient foundation as to the experience and ability of the lawyer to negotiate license agreements.

## **VII. Collateral Damages**

In addition to compensatory damages, the patentee can receive collateral damages, namely, prejudgment interest, attorney fees, and punitive damages.

### **1. Prejudgment Interest**

The trial court may award prejudgment interest. Prejudgment interest is awarded on both the lost profits and the royalty rate measures of damages. Although the statute does not define the appropriate standard, the Supreme Court has held:

"Prejudgment interest should ordinarily be awarded where necessary to afford the plaintiff full compensation for the infringement."

Thus, prejudgment interest is generally awarded absent some justification for the denying of such relief. Denial of prejudgment interest without justification is an abuse of discretion requiring remand.

There are important reasons for requesting prejudgment interest. First, the amount of prejudgment interest may be substantial, since interest may be accrued from a date prior to judgment, such as the date when an established reasonable royalty should have been paid. For example, in *Devex*, the total damages award based on a reasonable royalty rate amounted to \$8,813,945.50. The total prejudgment interest, calculated on each annual payment from the time it would be due, amounted to \$11,022,854.97, more than the damages award itself. Second, once the prejudgment interest is awarded, it is difficult to set aside since the appellate court can only overturn the award under an abuse of discretion standard.

## 2. Attorney's Fees and Costs

In exceptional cases, reasonable attorney's fees and costs may be awarded to the prevailing party. Exceptional circumstances include willful infringement, inequitable conduct by the patentee in obtaining or litigating the patent, or a bad faith continuation of litigation by the defendant. The trial court has discretion in setting the amount of attorney fees; however, the party seeking the award must provide some evidentiary basis for the award in the form of time records, billing rates, expenses, etc.

## 3. Punitive Damages

Section 284 allows the Court to increase the damages award up to three times the amount assessed. Although the decision to increase damages is discretionary, it should normally be awarded only in cases of willful and wanton infringement or bad faith litigation. The Federal Circuit has held that a person with knowledge of a patent has a duty to exercise due care to determine whether he or she will infringe valid patent rights before engaging in potentially infringing activities. In the leading case, *Underwater Devices*, the patentee advised defendant that its patented method would be the best method of installing pipe in a sewer project for which the defendant was bidding. When the defendant was awarded the project, in-house counsel for defendant drafted a memorandum which concluded that the patent would be held invalid in view of prior art, emphasizing that "the courts in recent years found patents invalid in approximately 80% of infringement cases." The court rejected the defense that the defendant acted in good faith reliance on the advice of counsel, and awarded treble damages noting that (1) the advice came from in-house counsel, (2) the attorney was not a patent attorney, and (3) the attorney's memorandum did not contain a proper evaluation of the validity or infringement of plaintiff's patents, and so was not a competent opinion.

To reduce the chances of a punitive damage award, a potential infringer should do the following:

1. Seek and follow the advice of competent patent counsel. Failure to seek the advice of competent counsel can be construed as an act of willful or wanton infringement. Willful infringement is found where the infringer had no reasonable basis for believing that its product was not infringing the patent. The absence of an exculpatory opinion from competent counsel significantly increases the risk that the infringer will be found guilty of willful infringement. However, failure to seek opinion of competent counsel does not mandate a finding of willfulness in every situation.
2. Avoid deliberate copying of the patentee's embodiment of the invention.
3. Avoid establishment of a confidential relationship with the patentee prior to infringement, to avoid a claim of unfair competition alleging breach of a

confidential relationship in connection with the infringement.

4. Do not conceal or misrepresent the nature of any infringing activities.
5. Maintain and provide the court with accurate business records regarding the infringing activities and damages.
6. Avoid prolonging litigation when there is clear evidence of validity and infringement.

#### 4. Procedural Aspects re Punitive Damages

The factual finding of willfulness and the legal determination of the amount of an appropriate increase are generally postponed until after an accounting for actual damages is completed. In jury trials, the jury must determine the amount of actual damages; however, the jury's determination of willfulness is only advisory to the trial judge. Even if the jury does find willfulness, it is at the judge's discretion to determine whether, and in what amount, damages should be increased. The judge may also overturn a jury's finding of willfulness by rendering a Judgment Notwithstanding the Verdict.

### **VIII. Jury Trials**

Either party to an infringement action may demand a jury trial when damages are sought. In requesting a jury trial, a party may identify the specific issues which are to be submitted to the jury. If fewer than all issues are identified, the other party can request a jury trial on any or all of the remaining factual issues. Damages, willful infringement and fraudulent intent are all factual issues which may be tried by a jury. On the other hand, inequitable conduct on the Patent Office and entitlement to attorneys' fees and punitive damages are generally matters for the judge.

There are several factors which should be considered before selecting a jury trial on damages, including:

1. A jury trial is preferred if the facts indicate willful infringement, such as when former employees or the infringer blatantly plagiarized the invention. A jury trial is not preferred if the defendant independently developed the invention without any willful or reckless conduct.
2. A jury trial should be avoided if the admissibility of important evidence is questionable. A judge is more inclined to exclude evidence in a jury trial; bench trials are less formal and often admit questionable evidence.
3. The speed with which a resolution is sought is also a factor to consider. Often long periods pass before a judge will give a decision. On the other hand, jury verdicts are usually rendered within days of the end of trial.

### **IX. Bifurcation of Issues**

Patent infringement litigation generally involves three questions: (1) the validity of the patent, (2) infringement, and (3) the amount of damages. These questions dictate both the flow and the order of presentation in the trial. Bifurcation may be used to split a single trial into separate trials, and one trial is used solely for the purpose of determining the amount of damages.

When a trial is bifurcated on the issue of damages, evidence of damages is not presented until after the patent is found valid and infringed. This simplifies the infringement and validity trial, as well as pre-trial discovery. Cases involving complex technical or legal issues should be bifurcated to avoid confusing the jury. However, when it is necessary to present cumulative evidence for separate trials, it is more efficient not to bifurcate.