

ESTIMATION OF PATENT DAMAGES

RPC



35 USC § 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



35 USC § 289

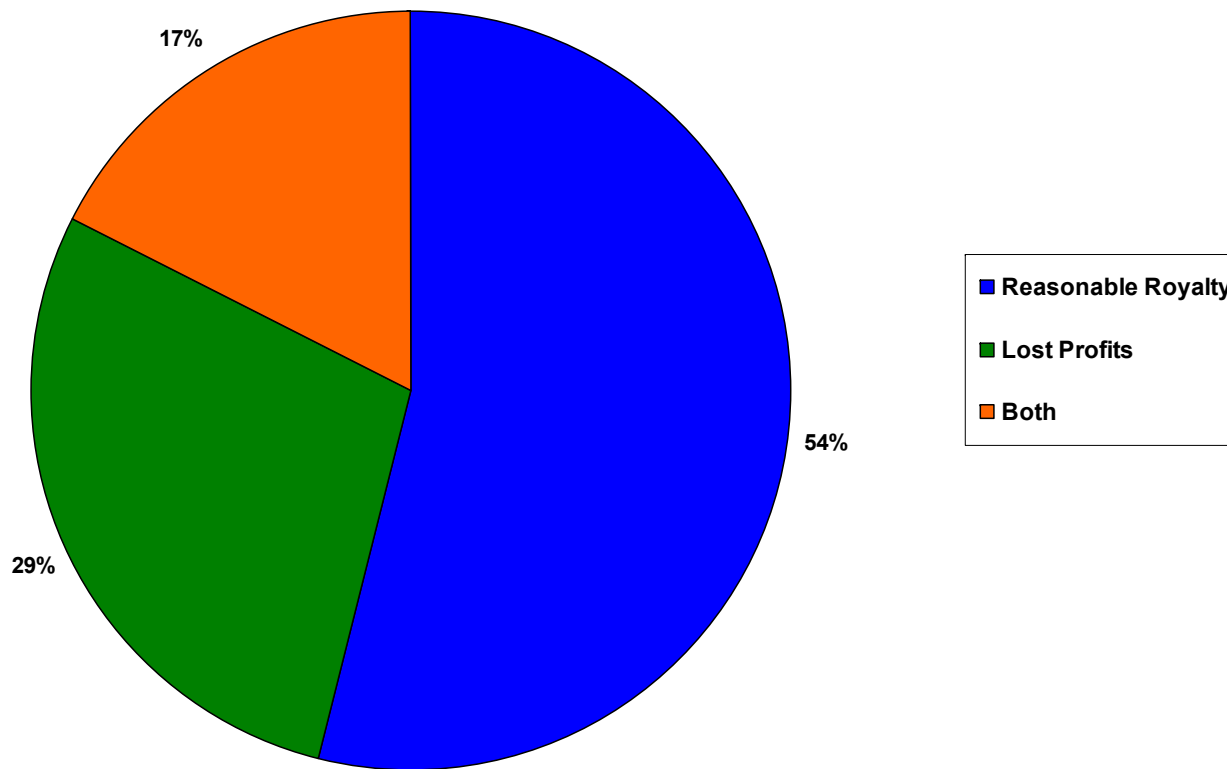
- Whoever during the term of a patent for a design, without license of the owner, (1) applies the patented design, or any colorable imitation thereof, to any article of manufacture for the purpose of sale, or (2) sells or exposes for sale any article of manufacture to which such design or colorable imitation has been applied shall be **liable to the owner to the extent of his total profits**, but no less than **\$250**, recoverable in any United States district court having jurisdiction of the parties



Damage Remedies

- What would the patent holder have made in the hypothetical, but-for infringement world?
 - Reasonable royalty damages - Earn royalty, i.e., licensing fees from the alleged infringer
 - Lost profits damages - Earn profits on sales lost to the alleged infringer

Distribution of Patent Damages Awards; 1990 - 2003



Source: William O. Kerr and Gauri Prakash-Canjels, *les Nouvelles*, *The Journal Of Licensing Executive Society*, June 2003

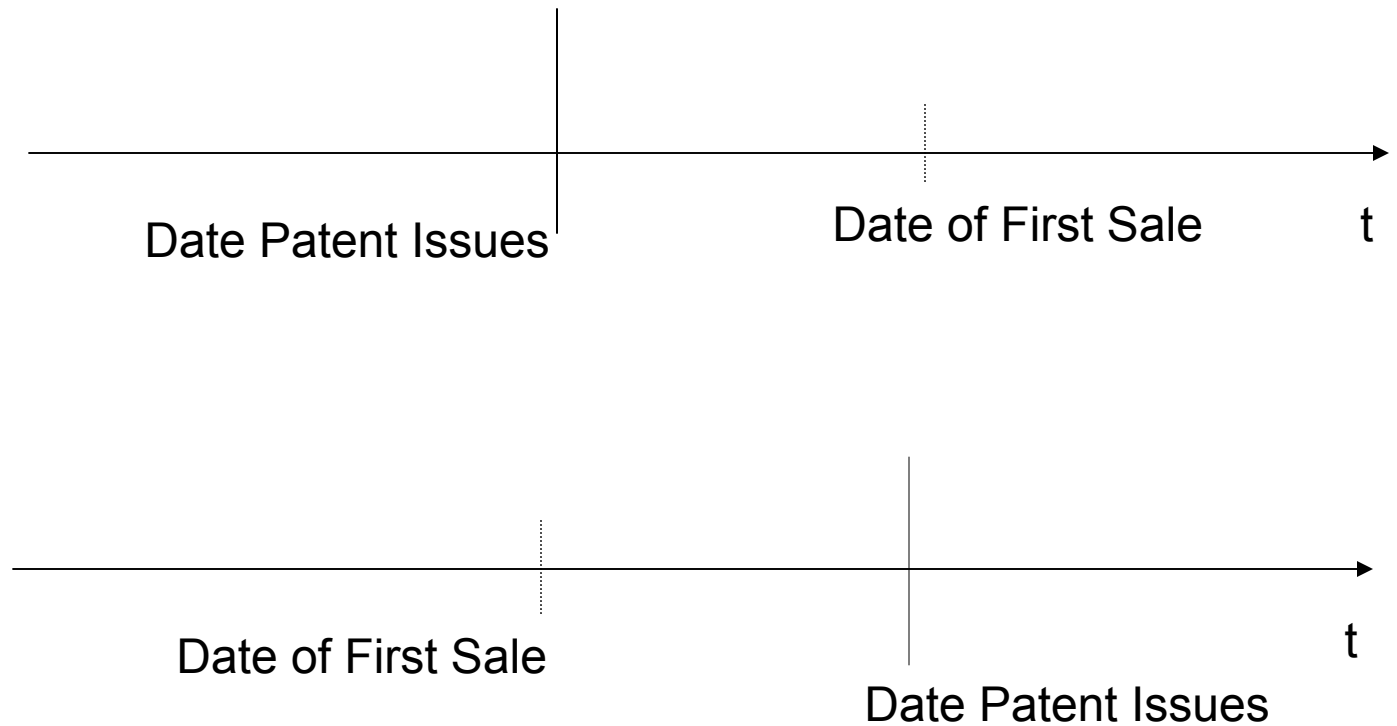


Reasonable Royalty Damages

- Hypothetical negotiation
 - Willing buyer and willing seller
 - Arms-length transaction
- Date of hypothetical negotiation
 - Just prior to infringement began



Date of Hypothetical Negotiation





Reasonable Royalty Damages

- *Georgia-Pacific* Factors – Based on *Georgia-Pacific v. United States Plywood Corp.* 318 E Supp 116 (ISDNY 1970)
- Case-specific factors affecting the bargaining power of the two parties



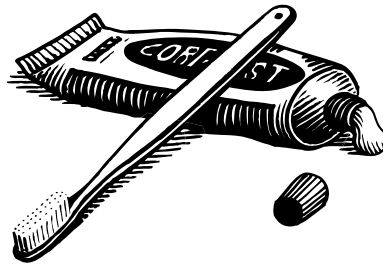
Reasonable Royalty Damages

- 15 *Georgia-Pacific* factors are grouped as follows – factors relating to
 - Comparable licenses
 - Licensing terms
 - Nature of licensor and licensee
 - Profitability and advantage of patented technology
 - Others

Reasonable Royalty Damages

- Comparable licenses

- Factor # 1 – Licenses of the patent-holder on the patented technology
- Factor # 2 – Licenses of the infringer on comparable technologies





Georgia-Pacific Factors # 1 & 2

- *Integra Lifesciences I, Limited etal v. Merck KGaA*, 2004 U.S. Dist. LEXIS 20725 and 2007 U.S. App. LEXIS 17930
 - The royalty rate payable by Merck KGaA amounted to 28.9% and that was “excessive”
 - “[S]upported by reviewing *Telios*’ other RGD Peptide licenses where *Telios* was to received between a 5% and 10% royalty of sales for RGD Peptide.”



Georgia-Pacific Factors # 1 & 2

- *Integra Lifesciences I, Limited etal v. Merck KGaA*, 2004 U.S. Dist. LEXIS 20725 and 2007 U.S. App. LEXIS 17930
 - Court also looked at “*the parties’ actual negotiations for a license of the RGD Patents.*”
- Note: on July 27, 2007, the Federal Circuit reversed the decision that Merck KGaA infringed the patents of Telios

Reasonable Royalty Damages

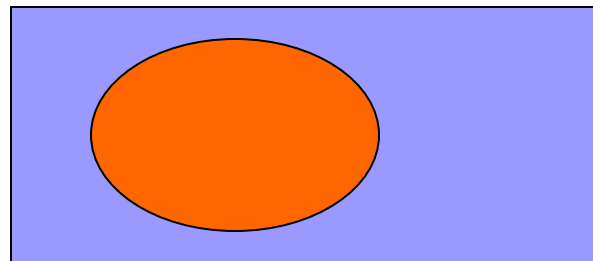
■ Licensing terms

- Factor # 3 – Nature and scope of the license
- Factor # 6 – Effect on sale of non patented products (convoyed or derivative sales)



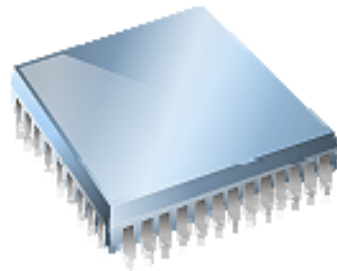
Georgia-Pacific Factor # 6

- Royalty base – Should conveyed or derivative sales, i.e., sales of non patented products that are often or exclusively sold with the patented product be included in the royalty base?



Georgia-Pacific Factor # 6

- Royalty base and conveyed or derivative sales are related
- Basis of consumer demand
- No functional dependence; not always sold together





Georgia-Pacific Factor # 6

- *Bose Corporation v. JBL, Inc. et al.* 2001 U.S. App. LEXIS 26684
 - Royalty base is the entire loud speaker system even though elliptical port is a small part of the loudspeaker system
 - Basis of consumer demand; saw significant sales growth
 - Patented part worked with other components as a single functioning unit – not sold together merely for consumer convenience
 - Marketing efforts highlighted benefits of the patented feature
 - Sold as complete system and not as separate pieces



Reasonable Royalty Damages

■ Licensing terms

- Factor # 7 – Duration of the patent and term of the license
- Factor # 12 – Portion of profits or price customary in the business or comparable businesses to allow for use of the invention or analogous invention



Reasonable Royalty Damages

- Nature of licensor and licensee
 - Factor # 4 – Policy to maintain monopoly
 - Factor # 5 – Commercial relationship - competitors or innovator and promoter

Reasonable Royalty Damages

- Profitability and advantage of the patented technology
 - Factor # 8 – Established profitability and commercial success of the patented product
 - Factor # 9 – Advantages of patented product over old modes

TABLE ON ROYALTY RATES

Revolutionary Technology	5%-10%
Major Improvement	3%-7%
Minor Improvement	1%-3%

Source: LES - *les Nouvelles*, 1997
(Median – Non Pharmaceuticals)

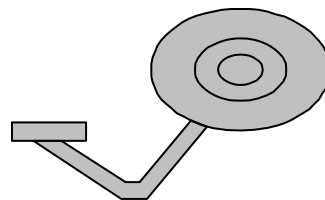


Reasonable Royalty Damages

- Profitability and advantage of the patented technology
 - Factor # 10 – Nature and commercial embodiment of the patent as owned by the patent holder and its benefits
 - Factor # 11 – Use of the invention by the infringer

Reasonable Royalty Damages

- Profitability and advantage of patented technology
 - Factor # 13 – Apportionment of the realized profits from the patented product to the patent and other factors such as improvements made by the infringer





Reasonable Royalty Damages

- Others

- Factor # 14 – Opinions of qualified experts
- Factor # 15 – Hypothetical negotiation



Lost Profits Damages

- Unit sales in the but-for world = Q_M
- Unit price in the but-for world = P_M
- Revenue in the but-for world = $P_M * Q_M$
- Profit Margin in the but-for world (%) = π_M
- Profits in the but-for world =

$$P_M * Q_M * \pi_M$$

Lost Profits Damages

- Sales that the patent holder actually made (Q_A)
- Sales that the patent holder lost because of unfair competition from the infringer ($Q_M - Q_A$)
- Unit price in the actual world = P_A
- Revenue in the actual world = $P_A * Q_A$
- Profit Margin in the actual world (%) = π_A
- Profits actually made =

$$P_A * Q_A * \pi_A$$



Lost Profits Damages

- Patent Damages using Lost Profits =

Profits in the but-for world - Profits actually made = Profits on Lost Sales =

$$P_M * Q_M * \pi_M - P_A * Q_A * \pi_A$$

Lost Profits Damages

- Focus on lost sales = $Q_M - Q_A$
- A measure of additional sales = sales made by infringer
- Two-player market
- Probability of patent holder making the sale when there is no infringement





Lost Profits Damages

- *Panduit Corporation v. Stahlin Brothers Fibre Works*, 575 F.2d 1152, 197 USPQ 726, 6th Circuit, 1978
 - The existence of demand for the patented technology
 - Absence of acceptable, non-infringing substitutes



Lost Profits Damages

- *Panduit Corporation v. Stahlin Brothers Fibre Works*, 575 F.2d 1152, 197 USPQ 726, 6th Circuit, 1978
 - *Patent owner having adequate production, marketing and distribution capacity to make the additional sales*
 - *Claimant's ability to estimate the amount of lost profits in a reasonable or non speculative manner*



Lost Profits Damages

- *Panduit* Factor # 2 – Proved to be the most limiting factor in granting of lost profits
- TWM decision allowed for lost profits even in the face of existence of non-infringing substitutes (*TWM Mfg. Co., Inc. v. Dura Corp. etal.* 789 F. 2d 895, 229 USPQ 525, Federal Circuit, 1986)
 - “*Mere existence of a competing device does not make that device an acceptable substitute.*”



Lost Profits Damages

- *Mor-Flo* decision allowed for lost profits even in the face of existence of acceptable, non-infringing substitutes (*State Industries, Inc. v. Mor-Flo Industries, Inc.* 883 F.2d 1573, 1577-78, Federal Circuit, 1989)
- The patent holder was given lost profits damages based on his share of the but-for market
- On the rest of the infringer's sales, the patent holder got reasonable royalty damages



Lost Profits Damages

- Mor-Flo Exercise
- Patent holder's actual sales = 45,000
- Infringer's actual sales = 25,000
- Rest of the sales = 40,000
- Calculate Mor-Flo market shares



Lost Profits Damages

Mor-Flo Analysis - Actual World

Patent Holder	45,000	41%
Infringer	25,000	23%
Rest of the Market	40,000	36%
	110,000	100%



Lost Profits Damages

Mor-Flo Analysis – But For World

Patent Holder	45,000	53%
Infringer	-	0%
Rest of the Market	40,000	47%
	85,000	100%



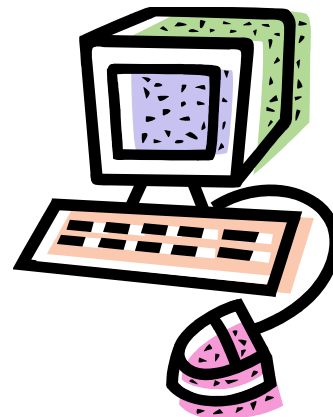
Lost Profits Damages

Breakdown of Infringer's Sales

25,000	53%	13,235	Lost Profits
25,000	47%	11,765	Reasonable Royalties
		25,000	

Lost Profits Damages

- Profit margin used in this analysis is **INCREMENTAL PROFIT MARGIN**
- It is not the profit margin that accountants calculate regularly
- What would it cost to make these **ADDITIONAL SALES?**



Lost Profits Damages

- But-For price and actual price





Lost Profits Damages

- Patent holder's Profit Margin (π) * Sales of Infringer $>$ Royalty rate * Sales of Infringer (royalty base)
- Conveyed sales under reasonable royalty damages



Patent Damages Example

- Proveris Scientific Corporation v. Innovasystems, Inc.
- US Patent No. 6,785,400 titled Spray Data Acquisition System
- Date of Issue August 31, 2004
- Innovasystems sells in late 2004



Patent Damages Example

- Proveris Scientific Corporation asks for reasonable royalty based on lost profits on sale of two systems and other market data



Permanent Injunction

- *eBay Inc. v. MercExchange LLC*, 126 Supreme Court 1837 (May 15, 2006)
- *“According to principles of equity, a plaintiff seeking permanent injunction must satisfy the four-factor test before a court may grant such relief.”*



Permanent Injunction

- A plaintiff must demonstrate
 - It has suffered irreparable harm
 - Remedies available at law for compensation are inadequate
 - Considering hardship between the plaintiff and defendant, remedy in equity is warranted
 - Public interest would not be disserved by an injunction



Thank you

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