

# The Search For Reasonable In Patent Licensing

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# Standard-Setting Organizations

Bylaws of the IEEE:

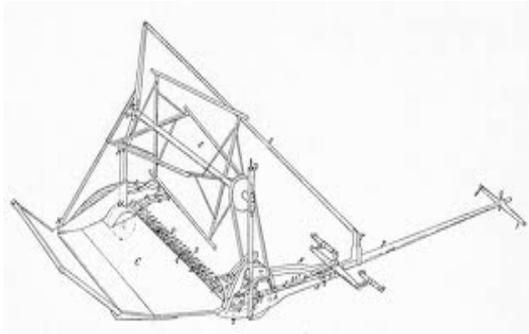
Owners of standard-essential patents (SEPs) who intend to enforce their patents must offer a letter of assurance with:

... A statement that a license for a compliant implementation of the standard will be made available to an unrestricted number of applicants on a worldwide basis without compensation or **under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.**

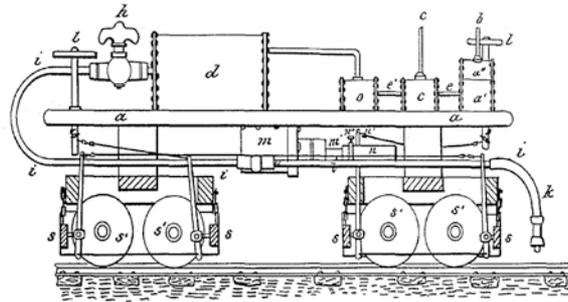


# The Smartphone Wars: What's Different Now?

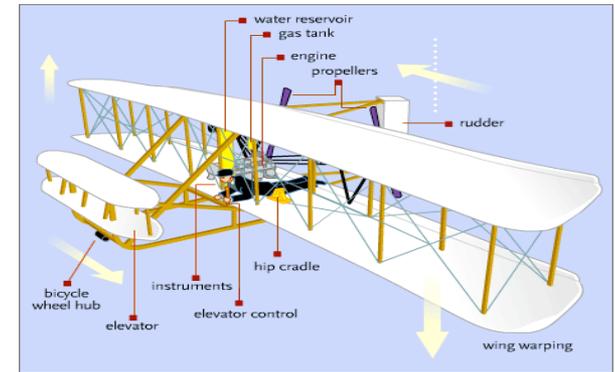
## Patent wars are familiar for emerging industries



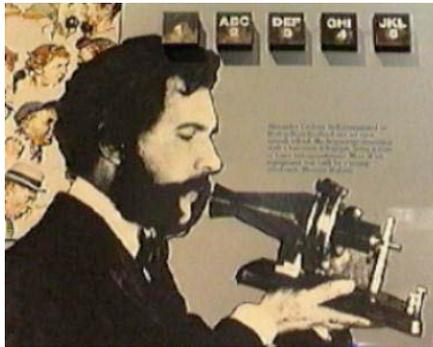
mechanical reaper



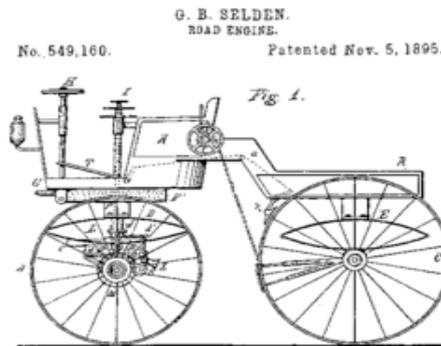
train air brake



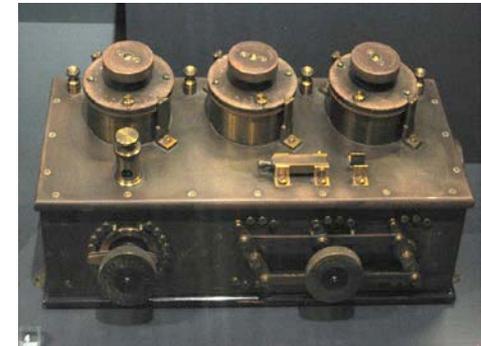
airplane



telephone



automobile



radio

# The Smartphone Wars: What's Different Now

- More patents cover products
  - More patent owners with royalty demands
- Standards
  - high switching costs make it hard to resist royalty demands
- New and more favorable litigation venues make it easier to monetize patents
  - Court of Appeals for the Federal Circuit
  - International Trade Commission
- Non-practicing entities
  - Should promote licensing?
  - But at what price?
- Drastic intervention (e.g. mandatory patent pools) is less likely

# The Purpose of the F/RAND Commitment

- Avoid hold-up from standard-specific investments
- Provide assured access to technology necessary to implement a standard
- Assure access at terms that reflect the contribution of a technology to the value of a standard
- Provide inventors with a reasonable return on their investments
- All of the above? None of the above?

# What Governs a F/RAND Commitment?

- Is a F/RAND commitment a contract between a SEP owner and a licensee?
  - Are third parties implied beneficiaries?
- Do SSOs set the rules?
  - What is the role of antitrust and the courts if the IPR policies of an SSO harm consumers?
  - What is the standard for consumer harm from the IPR policies of an SSO?
  - Can an SSO be liable under the antitrust laws if its IPR policies are deficient?

# What Governs a F/RAND Commitment?

- Is a F/RAND commitment an enforceable contract between a SEP owner and all licensees?
- The case for:
  - How does a F/RAND commitment protect users of standards if the commitment does not apply to all direct and indirect licensees?
- The case against:
  - The patentee makes the F/RAND commitment to the SSO and its members, not to all users
  - The commitment terms are vague, so what is there to enforce?

# What Governs a F/RAND Commitment?

## Confusing statements of law

- Are third parties implied beneficiaries?
  - *Microsoft Corp. v. Motorola, Inc.* (2012): “... Microsoft, **as a member of both the IEEE and the ITU**, is a third-party beneficiary of Motorola’s commitments to the IEEE and ITU.”
  - *Apple, Inc. v. Motorola Mobility, Inc.* (2012): “**As a potential user of the standards at issue and a prospective licensee of essential patents**, Apple is a third party beneficiary of the agreements between Motorola and IEEE and Motorola and ETSI.”

# What Governs a F/RAND Commitment?

- Have the courts spoken?
  - Does the defendant have to be a member of the SSO?
  - Is it enough to be a user of the standard?
  - Will the US courts resolve their differences?

# The Meaning of Fair and Reasonable

Intent of the patent owner as a willing licensor?

The following is a result from maximizing profits:

An owner of one or more SEPs will desire the maximum possible royalty if its share of patents exceeds its share of production, and will desire a zero royalty if its share of patents is less than its share of production.

# The Meaning of Fair and Reasonable

Intent of the patent owner as a willing licensor?

Intent of the patent owner offers little guidance because objectives are so different.

# The Meaning of Fair and Reasonable

Result of arms-length bargaining?

Bargaining may be one-sided if:

Standard adopters have made investments “ex post” that are specific to the standard or cannot coordinate a switch to an alternative: (“hold-up”)

Adopters can negotiate ex ante to suppress royalties for SEPs: (“hold-out”)

# The Meaning of Fair and Reasonable

## Contribution of the SEP to the standard and the standard to the product?

- How to isolate IP from other inputs
- What if adoption of a standard changes the value of a technology?
  - Changes in value due to adoption versus changes in value due to lock-in (hold-up)

# The Meaning of Fair and Reasonable

The incremental value of a technology relative to its next best alternative?

- What if no “next best alternative”?
- What about incentives to participate in standard-setting?

# “Royalty Stacking?”

## Desired Royalty Rates for LTE (4G) Patent Portfolios

Company	Disclosed Royalty (% of device price)	Royalty for \$400 device
Qualcomm	3.25%	\$13.00
Motorola	2.25%	\$9.00
Alcatel-Lucent	Up to 2%	\$8.00
Huawei	1.5%	\$6.00
Ericsson	1.5%	\$6.00
Nokia	1.5%	\$6.00
Nortel	1%	\$4.00
ZTE	1%	\$4.00
Siemens	0.8%	\$3.20
SUBTOTAL		\$59.20

# The Calculation of Fair and Reasonable: Incremental Value

- Apportionment:
  - How to allocate incremental value for many essential patents
  - Equal value per patent?
    - Incentives to file multiple patent claims
- What if some patent owners do not enforce their patent rights or are content to charge a zero or low royalty? Does that increase the royalty that other essential patent owners may charge?

## How to Allocate Values to Multiple SEPs

- F/RAND royalty for the standard, allocated to individual patents
  - Microsoft v Motorola: “[A] proper methodology for determining a [F]RAND royalty should address the risk of royalty stacking by considering the aggregate royalties that would apply if other SEP holders made royalty demands of the implementer.”

# The Calculation of Fair and Reasonable

## The royalty base

- The end device
  - E.g., a \$400 handset for LTE patents
- The “smallest saleable patent practicing unit”
  - E.g., a \$20 baseband processor for LTE patents

# Litigated SEP Royalties (U.S.)

SEP Holder	Motorola	Innovatio IP Ventures	
Licensee	Microsoft	Users and manufacturers of Wi-Fi equipment	
Technology	802.11 Wi-Fi H.264 Video Encoding	802.11 Wi-Fi	
Number of SEPs	802.11: 24 H.264: 16	19	
Requested Royalty	2.25% of device price (e.g., \$45 for a \$200 device)	Varied: e.g., \$16.17 per tablet	
Verdict	3.471 cents for Xbox .555 cents for other products	9.56 cents per device	

# The Meaning of Non-discrimination

- Non-discrimination or no unreasonable discrimination?
- Does non-discrimination mean only that licensing terms should not unduly distort competition?
- Does non-discrimination mean that all licensees can choose from the same royalty terms?
  - Require licensors to post royalty terms
  - Is there scope for good bargainers, early adopters?
- How to measure royalties if no single patent cash option?

# Non-Discrimination

- Does it matter where the royalty is collected?
  - Are royalties for end devices comparable to royalties for “smallest saleable patent practicing units”
- Different royalty terms for different applications of the standard?
- Different royalty terms for products manufactured, sold, or used in different countries?
- Should there be a published “royalty menu”?
  - Lessons from patent pools

# F/RAND and Injunctions

- Injunction threat is a powerful bargaining tool
  - Particularly with switching costs, multiple essential patents
- If a RAND commitment means no injunction, this is arguably RAND's most important feature
- In the US, currently being tested in courts and especially at the International Trade Commission

# F/RAND and Injunctions

- Injunctions for F/RAND encumbered patents:
  - never, always, sometimes?
- Require adjudication of F/RAND offer before granting an injunction or exclusion order?
- What is a willing licensee?
- When can a licensor conclude that compensation is not likely?

# F/RAND and Injunctions

- US courts generally have not denied injunctive relief
  - *Apple, Inc. v. Motorola, Inc.*

“By committing to license its patents on FRAND terms, Motorola committed to license the [patent] to anyone willing to pay a FRAND royalty and thus implicitly acknowledged that a royalty is adequate compensation for a license to use that patent.”
- But injunctions still available to prevent “reverse hold up” (hold-out) when user refuses FRAND rate or refuses to negotiate
  - *Realtek Semiconductor Corp. v. LSI Corp.*

“[A]n injunction may be warranted where an accused infringer of a standard-essential patent outright *refuses* to accept a RAND license.”)

# U.S. International Trade Commission

- Exclusion orders at the ITC and the public interest standard
- *Samsung v. Apple*, Inv. No. 337-TA-794
  - Commission granted exclusion order
  - Exclusion order reversed by the US Trade Representative
    - First such veto since 1987

# Are SEPs Different?

- Arguments why SEPs are different:
  - Often one technology, but many patents
    - Need to allocate value to different patents and portfolios
    - Importance of cross-licensing
  - Switching costs from standard adoption
  - The F/RAND commitment
    - Rules for injunctions

## Are SEPs Different?

- The Case For Patent Neutrality:
  - Often many patents cover a technology or product
  - Switching costs can be high for patents that do not cover standards
  - Firms often desire cross-licenses for freedom to operate

# The Case For Patent Neutrality

- **What about the F/RAND commitment?**
  - Rules for injunctions apply to all patents
  - A F/RAND commitment fits neatly into current patent law
    - Current patent law is consistent with “fair and reasonable” royalties
    - Patent owners often make “pledges” related to F/RAND commitments

# The Case For Patent Neutrality

Rather than changing the rules for dealing with infringement of SEPs, allow rules for SEPs and non-SEPs to converge

# The Case For Patent Neutrality

## Holdup is a potential concern for all patents

- Current rules for calculation of infringement damages allow consideration of alternatives available to the infringer at the time of first infringement
  - *Georgia-Pacific*: the “amount that a licensor...and a licensee...would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement.”
- Clarify rules for infringement to consider alternatives available before infringing firm or its customers make investments that are specific to the patented technology

# The Case For Patent Neutrality: Injunctions

***eBay Inc. v. MercExchange, L.L.C.***, US Sup Ct (2006)

Plaintiff in a patent infringement suit must demonstrate:

- 1) that it has suffered an irreparable injury;
- 2) that remedies available at law are inadequate to compensate for that injury;
- 3) that considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and
- 4) that the public interest would not be disserved by a permanent injunction.

# The Case For Patent Neutrality

## **SSO participation**

To avoid the burden of F/RAND commitment, firms may:

- (a) refuse to participate in standard development, or
- (b) participate selectively, withdraw, and patent (as alleged in *U.S. Federal Trade Commission v. Rambus*)

Patent neutrality addresses both concerns

# The Case For Patent Neutrality

- **What about “non-discriminatory”?**
- The non-discrimination requirement is part of the F/RAND commitment
- ND has largely been overlooked
- Nonetheless, the non-discrimination commitment is not qualitatively different from other commitments
  - E.g., most-favored customer clauses

# Concluding Remarks

- Numerous unsettled issues associated with commitments to license standard essential patents at F/RAND terms
- Rather than develop special rules for SEPs, apply the same principles to all patents:
  - Injunctions
  - Reasonable royalties
  - Other commitments, such as non-discrimination
- May require damages to consider alternatives available *before* users make investments that are specific to the patented technology