Patent Law Basics
An Engineer’s Journey To Become an IP Attorney

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About Proskauer Rose LLP

- Founded in 1875
- Over 750 attorneys
- With 12 offices
- In 5 continents
Overview

• Intellectual Property Basics
  – Types of IP
  – Walk-through the Parts of a Patent
  – Patent Protection
• Primer for How Patents Influence Work Life of Engineers and Technology Managers
  – Hypothetical
• Being an IP Attorney
  – My journey – how did I end up practicing law?
  – What does an IP Attorney do?
Intellectual Property Basics

• There are many forms of intellectual property, each protecting a different type of intangible property for a specific term and under the grant of a different protection
  – Patents (new and nonobvious device/method)
  – Trademarks (source identifiers, brands)
  – Copyrights (expression of an idea)
  – Trade Secrets (technical/business secrets)

• Each country has their own IP laws. IP is only enforceable in the country where it was obtained
U.S. Patent Rights

• U.S. Constitution – Article I, Section 8
  – To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.

• Federal Patent Laws – 35 USC § 101
  – Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

• In return for full disclosure, patent owner has a “limited monopoly” (20 years from filing) entitling owner to exclude others from making, using, or selling a patented invention.
What does a US Patent look like?

• Cover Sheet
• Drawings
• Specification
• Claims
United States Patent
Cook et al.

Title: COMPOSITE ELECTRODE FOR A PLASMA ARC TORUS

Abstract: A plasma arc torch that includes a torch body having a needle shaped nozzle in communication with a composite electrode in the body to deliver a plasma discharge. The torch body includes a power supply to control the plasma discharge and a nozzle shaped in which a plasma arc is formed. The nozzle includes a flared body portion and a subsequently solidified protuberance defining an exit orifice. The composite electrode comprises a core made of a metal powder (e.g., nickel, cobalt, iron, copper, molybdenum, tungsten, or their refractory compacts) disposed in close proximity to the exit orifice to provide a source of arc initiation and control. The composite electrode is able to withstand thermal shock and maintain a high thermal conductivity.

US Pat. 6841754

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It is all about the claims

- Claims determine the legal rights of a patent owner
- Claim types
  - Independent and Dependent claims
  - Apparatus, Composition of Matter, Methods, Product by Process
- Claim interpretation
  - Plain meaning of the words of the claim
  - Meanings as provided by the specification
  - Meanings determined by the file history
  - Meanings as affected by the prior art
The value of a patent

- Prevent copying by others; lawsuit over claim infringement
- Retention of market share/ blocking of competitors
- Marketing
- Licensing/cross-licensing
- Sign of inventive prowess
- Increase value of company (buyout, investment)
Patent Rights & the Engineer/Technology Manager

• Employment contract
  - What rights are you giving to employer?
  - What rights is the employer not pursuing?
  - For how long do these restrictions survive termination?

• Inventing
  - Patent rights are lost upon disclosure of the idea.
  - Only inventors can be named on a US patent.
  - Currently the US has first-to-invent laws – corroboration of evidence of invention (e.g., dated & witnessed notebook entries) may be crucial; (The US will move to a first-to-file system on March 16, 2013).
Patent Rights & the Engineer/Technology Manager (cont’d)

• Patent clearance of your new product/manufacturing method
  – Need to know what market will you be offering your product in
  – Need to know where will you be manufacturing
  – Need to become familiar with basic patent searching
  – Need to monitor your competitors to see what they are doing

• Patent Filings and Prosecution
  – Work closely with a patent attorney/agent/patent officer in drafting application
  – During examination of patent, questions will be asked of you regarding prior art and claim language coverage of commercial embodiment
  – May be called upon for an affidavit for evidence of patentability
Patent Rights & the Engineer/Technology Manager (cont’d)

- Lawsuits
  - Technical advice with respect to claim interpretation
  - Technical advice on how alleged “infringing device” does or does not infringe
  - Expert Report
  - Deposed

- Licensing
  - Review definitions and terms within licenses to ensure that they achieve the desired goal.
Hypothetical

• Deb has just joined company XYZ, which manufactures plasma arc torches. She is excited about this new opportunity to be Director of Research for the Electrode Division. While she hasn’t worked in the torch industry before, she holds a Ph.D in material science and has worked in the plasma reactor/semiconductor field for the last 7 years; first as a design engineer for company ABC and then as a technical lead for producing ABC’s new plasma chamber.

• During the first month on the job at XYZ, Deb attends a plasma science conference and is assigned to staff XYZ’s company booth at the trade show exhibit. When Deb gets to the booth she notices that there is a picture of her team’s new electrode, the XL500, on the display behind her. Deb thinks this is odd, as the
product isn’t scheduled to be released for another three months and she is still reviewing and revising the patent application with the company attorney. Deb asks the marketing director, Bill, if the display shows the XL500. Bill exclaims, “Yes, we want to generate some buzz about this awesome new electrode! I tell interested customers to be on the lookout for this revolutionary new electrode, which they can learn about next month on our Web site.”

- Looking at the display again, Deb notices that the key feature, a diagonal guide tube that brings cooling water to a joint, is not visible within the picture on the display.
Hypothetical (cont’d)

• That night Deb decides to relax and head to the bar to grab a beer. As this is a plasma science conference, she bumps into Amy, a former colleague from graduate school. As the two friends catch up, Deb tells Amy that in her spare time she has been working on a new iPhone App, a game called “Plasma Man.” Amy offers her some suggestions about features of the game, one of which Deb incorporates into the finished version of “Plasma Man.” However, to make this particular feature work, Deb invents a new way of interacting with the screen through video commands. Realizing the potential of the invention, Deb pays for a patent attorney and files independent of her company, a US patent application listing her as the sole inventor.
Being an IP Attorney

• Obtaining and Enforcing: Patents, Trademarks, Copyrights, Trade Secrets; Rights of Publicity; Internet Law: Privacy Domain Names, Terms of Use; Technology Licensing.

• Generally, attorneys choose a couple of areas of focus. For example, I work mostly in obtaining and enforcing patents and trademarks and licensing those rights. However, I have drafted terms of use, advised clients on trade secrets, and obtained copyrights for clients.
Overview of Proskauer’s Patent Practice

**What we do…**
- IP due diligence
- Strategic patent counseling
- Patent prosecution
- Technology transactions and licensing
- Litigation and dispute resolution

**And who we do it for…**
- Fortune 500 companies
- Public and private corporations
- Venture-backed start-ups
- Major universities and hospitals
- Banks and underwriters
- Investors
- Nonprofits and individuals
What do I do all day?

• Obtain patent rights - review patent disclosure; speak with the inventors to ask questions about their invention; draft claims; draft applications.
• Maintain patent rights both in the US and abroad
• Counsel clients with respect to their patent portfolio
  – What claims you need to get the coverage your business needs
  – What patent applications/patents are needed to achieve business objectives
• Freedom to Operate Studies
• Analysis of claims for possible infringement
• Analyzing and finding IP assets as part of due diligence.
My Journey

- I graduated in 1995 with a degree in Mechanical Engineering.
- Best way to finish your dissertation is to find a job. In 1999, I attend an alternative career seminar for science graduate students at MIT.
- Defended thesis on a Wednesday, started new career on a Monday in October 2000.
- Worked during the day at a Boston law firm, attended law school at night from 2001-2005.