2.009 Product Engineering Processes

you are capable, competent, creative, careful. prove it.

fortune cookie
2.009 staff meeting
2.009 Product Engineering Processes

Key product development message

wishing won’t fix a design flaw
2.009 Product Engineering Processes

Today

Patent Literacy 101 the basics
But first

A few reminders

Peer review due 5 PM today

Details of technical review logistics are online

Notebooks and timesheets this week
Patent Literacy 101

At Least 10 Things You Should Know About Patents

November 17, 2008
Elaine Yang
10 Patent-Related Questions

1. What is a patent?
2. What about international patents?
3. What is an “invention”?
4. Who are the inventors of an invention?
5. Is invention Z patentable?
6. What is the process for getting a patent?
7. What is the cost of getting a patent?
8. Does product X infringe patent Y?
9. What resources are available for help in getting a patent?
10. Should one apply for a patent?
What is a Patent?

Why do we have patents?

From the United States Constitution, Article I, Section 8:

The Congress shall have the power …

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
What is a Patent?

How is the patent system implemented in the U.S.?

United States Patent Law found in
Title 35 of the United States Code (35 U.S.C.)

agency within the U.S. Department of Commerce
administrates the patent law and promulgates patent regulations

Consolidated Patent Rules found in
Title 37 Code of Federal Regulations (37 C.F.R.)

Federal case law, including U.S. Supreme Court case law

Patent Examiners follow
• Includes copies of the text of 35 U.S.C. and 37 C.F.R., explanations for how to apply them and references to case law (i.e., decisions by courts on how to apply the law)
What is a Patent?

What types of patents are available?

Utility Patents (35 U.S.C. 101)
- **process**: method; series of steps for carrying out a task
- **machine**: apparatus; generally has moving parts
- **composition of matter**: chemical composition; mixture of substances
- **manufacture**: human-made objects without moving parts
- **improvements** of the items in the above four categories

Design Patents (35 U.S.C. 175)
- **ornamental** design for an article of manufacture

Plant Patents (35 U.S.C. 161)
- **asexually reproduces** any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state
What is a Patent?

What does a patent grant?

A utility patent grants the patentee

“the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States,

and,

if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process…”

35 U.S.C. 154(a)(1)
What is a Patent?

What does that mean?

Owner of a patent may

• grant licenses to third parties authorizing them to make, use, sell, offer to sell, or import the patented invention into the U.S. without fear of being sued for patent infringement under the patents being licensed.
  - Note that a license does not protect against infringement of 3rd party patents.
• ask a court to stop others from making, using, selling, offering to sell, or importing the patented invention into the U.S. without permission.
What is a Patent?

*What does that mean?*

Patent does not grant any **positive** rights to the patentee.

Patent does **not** grant the patentee the right to make, use, offer for sale, or sell the invention throughout the United States or import the invention into the United States.

Why wouldn’t the patentee be able to import the invention?
Example: The government has not/will not approve provide authorization for the import (e.g., prohibited weapons in the National Firearms Act).

Why wouldn’t the patentee be able to offer for sale the invention?
Example: The FDA has not yet approved the sale of the item to U.S. consumers.
What is a Patent?

Why wouldn’t the patentee be able to make the invention?

Example: Maybe there is a law that prohibits the manufacture of the invention.

Example: Maybe there is a third-party patent that blocks the patentee from making the invention.

- Patent A: chair = seat and four legs
- Patent B: rocking chair = seat and four legs and two rockers
  - Improvement patent
What is a Patent?

How long does the patentee have the right to exclude?

Patent term

- begins: date on which the patent issues
- ends: 20 years from the date the application for the patent was filed in the United States.* (35 U.S.C. 154(a)(2))
  - for applications pending on June 8, 1995, patent term is greater of 17 years from issuance or 20 years from date of filing (35 U.S.C. 154(c)(1))

*Subject to a number of exceptions & the patentee maintaining the patent.

Design patent terms are 14 years from the date of grant. 35 U.S.C. 173

To find out whether a patent has been maintained, check the status of the patent from the U.S.P.T.O.’s Public Patent Application Information Retrieval (Public PAIR) website:

http://portal.uspto.gov/external/portal/pair

| Status: | Patent Expired Due to Non-Payment of Maintenance Fees Under 37 CFR 1.362 |
What is a Patent?

What happens when a patent term expires?

The patentee no longer has the right to exclude.

Law gives patentee some time to file a lawsuit, so a lawsuit may be filed after the patent term expires for infringement that occurred during the patent term.

The information in the patent becomes public domain.

The disclosure continues to serve as prior art.
What about international patents?

- A patent right is granted by a country and may be enforced generally only on activities within that country.
- Most countries have their own patent system with their own standards of patentability, their own patenting process, and their own fee schedule.
- For an invention made in the U.S., a foreign filing license must be obtained before filing for a patent on the invention in any foreign country. *35 U.S.C. 184*
  - Foreign filing license is normally granted when a U.S. patent application is filed.
  - Penalty for filing without a foreign filing license: one may be fined not more than $10,000 or imprisoned for not more than two years, or both. *35 U.S.C. 186*
What is an “invention”?

Why it matters

- Each patent is generally limited to covering one “independent and distinct invention.” 35 U.S.C. § 121
  - Independent: not dependent or unrelated
    - unconnected in design, operation, and effect
  - Related, but distinct:
    - related: inventions are connected in design, operation, or effect
    - distinct: inventions, as claimed, are unconnected in design, operation, or effect
      - The analysis is based on how the claims are drafted.
        - A patent can be written with “restriction-proof” claims.
  - If two or more independent and/or two or more distinct inventions are claimed in one patent application, the U.S.P.T.O. has the right to require that the application be restricted to one of the inventions.
    - Additional applications may be filed for the remaining inventions.
What is an “invention”?  

*Breaking up a project into “inventions”*

Fruit Sorter Machine  
* Sorts items by color and weight

What do we want to exclude others from doing?

One could patent:
- color and weight sorting machine
- color sorting/detection component
- weight sorting/detection component
- system that moves items into bins
- system that conveys items through machine
Who are the inventors of an invention?

Why it matters

Patent may only be granted to the person(s) who invented the invention.  
35 U.S.C. 102(f)

Errors in the list of the inventors may be corrected, but is more involved:  
• in some situations, a statement that the error was not made with deceptive intent  
  must be submitted. (37 C.F.R. §1.48)

Why a patent shouldn’t list non-inventors as inventors:  
• assuming the patent has not been assigned to a third party,  
  • each inventor on the patent is a 100% owner and has the right to assert the patent rights

Why a patent shouldn’t omit listing inventors:  
• omitted inventor may sue for rights later on  
• patent may be invalidated for not listing the correct inventors
Who are the inventors of an invention?

Inventor
• must be a human being
  • cannot be a business/corporation
• is one who invents the invention
  • to invent: to conceive of the idea of the invention

Conception vs. Reduction to Practice
• conception has occurred when a definite and permanent idea of the invention, including every feature of the subject matter sought to be patented, is known
• reduction to practice has occurred when an embodiment of the invention has been physically constructed.
  • For machines and processes, the prototype must work for its intended purpose.
  • Preparation and filing of a patent application is considered constructive reduction to practice.
## Who are the inventors of an invention?

### Who is an inventor?

<table>
<thead>
<tr>
<th>Person’s contribution to the Fruit Sorter</th>
<th>Inventor?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers need a way to quickly pack fruit to meet weight restrictions per box.</td>
<td>NO</td>
</tr>
<tr>
<td>Let’s make a fruit sorter that sorts by color and weight.</td>
<td>YES</td>
</tr>
<tr>
<td>Sorter works by sorting first by weight, and then by color.</td>
<td>YES, if claimed</td>
</tr>
<tr>
<td>Prototypes a weight sorter using known components under direction by an inventor.</td>
<td>NO</td>
</tr>
<tr>
<td>Designs a new color sorting system that uses electronics, but doesn’t know electronics.</td>
<td>YES, if claimed</td>
</tr>
<tr>
<td>Prototypes the color sorting system, implements the details of the electronics, which anyone skilled in the art could do.</td>
<td>NO, unless details claimed</td>
</tr>
<tr>
<td>Assembles all the parts together, using known components. A task that anyone skilled in the art could do.</td>
<td>NO</td>
</tr>
<tr>
<td>Improves how the fruit enters the machine so that they are not damaged. Uses existing components in novel way.</td>
<td>YES, if claimed</td>
</tr>
</tbody>
</table>
Is invention Z patentable?

Answer:
It depends on many factors.
Might be possible to give a definite “No,”
but isn’t possible to give a definite “Yes.”

But, you can weigh whether it is more or less likely that a patent would be granted.

So, the question becomes: Is invention Z likely to be patentable?
Is invention Z likely to be patentable?

*Patentable subject matter*

Statutory Subject Matter for Utility Patents (35 U.S.C. 101)
- **process**: method; series of steps for carrying out a task
- **machine**: apparatus; generally has moving parts
- **composition of matter**: chemical composition; mixture of substances
- **manufacture**: human-made objects without moving parts
- **improvements** of the items in the above four categories

Judicial Exceptions
- laws of nature
- natural phenomena
- abstract ideas
- unapplied mathematical algorithms
- product of nature
Is invention Z likely to be patentable?

**Statutory bars**

In the U.S., patent rights are awarded to the first to invent.

How does the U.S.P.T.O. know the date an invention was invented?
- assume the filing date of the application is the invention date
- unless the inventor submits an affidavit claiming an earlier invention date
  - procedure outlined in 37 C.F.R. §1.131 must be followed
    - requires evidence, such as a copy of an inventor’s notebook

A person may not receive a patent for an invention if the invention
- was known or used in the U.S. before the person invented the invention
- patented or described in a printed publication in any country before the person invented the invention
- was not invented by the person
- has been abandoned

35 U.S.C. 102
Is invention Z likely to be patentable?

Statutory bars

Abandonment = pursuit of patent rights has been abandoned

Goals of patent system:
- promote prompt and widespread disclosure of new inventions to the public.
- limit period of exclusivity to the statutory patent term.

1-year grace period*: the following events may not occur more than a year before the application for the patent is filed
- filing for a patent in a foreign country
- describing the invention in a printed publication (e.g., journal article)
- public use of the invention (e.g., public disclosure)
  - any person has use of the invention without limitation or restriction
- offering the invention for sale

35 U.S.C. 102

* in the U.S. Most foreign patent systems do not have a 1-year grace period.
Is invention Z likely to be patentable?

Statutory requirements

Invention, as described in the claims, must be

- **Novel** (35 U.S.C. 102)
  - Not novel if a single prior art reference discloses every element of the invention, arranged as described in the claim.

- **Nonobvious** (35 U.S.C. 103)
  - Obvious if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.
  - Obviousness can be established by combining multiple prior art references.

- **Useful** (35 U.S.C. 101)
  - Not useful if there is not a specific, substantial, and credible utility.
  - Not useful if it does not work (e.g., contravenes generally accepted scientific principles)
What is the process for getting a patent?

A simplified timeline

Day 1
Invention Date

Within 1 year of Public Use
File Provisional Patent Application (Optional)
Or
File Patent Application

3 months later
Public Use

Within 18 months of Filing Date
Patent Application Published

Filing Date
Receive e-filing receipt
Or
About Week Later
Receive paper filing receipt

A Few Weeks Later
Notice of Missing Parts (if applicable)
What is the process for getting a patent?

A simplified timeline (continued)

Goal: Within 14 months of Filing Date
USPTO Takes Action on Application
First Office Action

Goal: Within 4 months of Response
USPTO Takes Action
Notice of Allowance

Goal: within 3 months from Mailing Date of Office Action
(no later than 6 months)
File a Response and
a Request for Continued Examination
(RCE)
Or
Start Appeal Process

A few weeks later
USPTO Processes Patent
Issue Notification
(Patent No. & Issue Date)

Within 3 months from Mailing Date of Notice of Allowance
Pay Issue Fee

Shortly Afterwards
Receive Letters Patent

Goal: within 3 months from Mailing Date of Office Action
(no later than 6 months)
Respond to First Office Action

Goal: Within 3 yrs of Filing Date
Issue Date
USPTO Issues Patent
What is the cost for getting a patent?

*Rephrasing the question*

When evaluating the costs for a patent, consider

- costs for getting the patent (i.e., patent prosecution costs)
- costs for maintaining a patent
- costs for enforcing a patent
What are the costs for getting a patent?

Official filing fees

http://www.uspto.gov/web/offices/ac/qs/ope/fee2008october02.htm

<table>
<thead>
<tr>
<th>Fee</th>
<th>Large Entity (&gt;500 people)</th>
<th>Small Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisional Application Filing Fee</td>
<td>220</td>
<td>110</td>
</tr>
<tr>
<td>Basic Filing Fee - Utility</td>
<td>330</td>
<td>165 (82 e-filing)</td>
</tr>
<tr>
<td>Utility Search Fee</td>
<td>540</td>
<td>270</td>
</tr>
<tr>
<td>Utility Examination Fee</td>
<td>220</td>
<td>110</td>
</tr>
<tr>
<td>Request for Continued Examination</td>
<td>810</td>
<td>405</td>
</tr>
<tr>
<td>Utility Issue Fee</td>
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<tr>
<td><strong>Total Fees (e-filed)</strong></td>
<td><strong>3630</strong></td>
<td><strong>1732</strong></td>
</tr>
</tbody>
</table>

*Additional fees for large numbers of claims, late responses, & more
What are the costs for getting a patent?

**Labor fees with Patent Agent/Attorney**

Very rough estimates

Provisional Patent Application preparation & filing (minimal)
- 5-15 hrs * $200-500/hr = $1000-7500 (~3500)

Patent Application preparation & filing (from scratch)
- ~30 hrs * $200-500/hr = $6000-15000 (~10000)

Patent Application prosecution (per Office Action response)
- 5-15 hrs * $200-500/hr = $1000-7500 (~4000)
What are the costs for getting a patent?

*Total Prosecution Cost (based on previous estimates)*

<table>
<thead>
<tr>
<th>Fee</th>
<th>Large Entity (&gt;500 people)</th>
<th>Small Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official U.S.P.T.O. Fees</td>
<td>3630</td>
<td>1732</td>
</tr>
<tr>
<td>Provisional Patent Application</td>
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<td>3500</td>
</tr>
<tr>
<td>Patent Application</td>
<td>10000</td>
<td>10000</td>
</tr>
<tr>
<td>First Office Action Response</td>
<td>4000</td>
<td>4000</td>
</tr>
<tr>
<td>Second Office Action Response</td>
<td>4000</td>
<td>4000</td>
</tr>
<tr>
<td>Total Fees (e-filed)*</td>
<td>25130</td>
<td>23232</td>
</tr>
</tbody>
</table>

*Additional fees for large numbers of claims, late responses, & more*
**What are the costs for maintaining a patent?**

*Maintenance fees*

<table>
<thead>
<tr>
<th>Fee</th>
<th>Large Entity (&gt;500 people)</th>
<th>Small Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due at 3.5 years</td>
<td>980</td>
<td>490</td>
</tr>
<tr>
<td>Due at 7.5 years</td>
<td>2480</td>
<td>1240</td>
</tr>
<tr>
<td>Due at 11.5 years</td>
<td>4100</td>
<td>2055</td>
</tr>
<tr>
<td><strong>Total Maintenance Fees</strong>*</td>
<td><strong>7570</strong></td>
<td><strong>3785</strong></td>
</tr>
</tbody>
</table>

*Assuming no late payment surcharges*
What are the costs for enforcing a patent?

Balance benefits of having the patent
• value of patent to the business

With costs of enforcing the patent
• determining which products possibly infringe the patent
• sending cease-and-desist letters to infringers
• participating in settlement talks
• lawsuit

If you don’t enforce your patent, you may lose your patent rights!
What are the costs for getting a patent?

*Tips for reducing patent prosecution costs*

Delay filing patent applications:

- File a single provisional patent application that describes multiple inventions.
- Within one year of filing the provisional application, file patent applications for one or more inventions disclosed in the provisional patent application.
  - If you are interested in foreign patent rights, file a Patent Cooperation Treaty (PCT) application claiming priority to the provisional application.
- Before the filed patent applications are issued, file divisional or continuation applications for inventions disclosed in the filed patent application.
- The effective filing date for prior art purposes for all of these patent applications will be the filing date of the provisional patent application.
  - Assuming that the provisional patent application disclosed the claimed invention.
What are the costs for getting a patent?

Tips for reducing patent prosecution costs

Participate in the process:

• Draft thorough invention disclosures. Explain:
  • what problem the invention solves.
  • what is the state of the art the invention builds on.
  • how the invention solves the problem.
  • what the obvious variations on the invention are.
  • what advantages there are to the invention over existing art.
  • whether the effect of the invention is unexpected, or demonstrates synergistic effects.

• Prepare clear drawings illustrating all important features.
  • Drawings from multiple viewpoints are helpful.
  • Drawings that show obvious variations on the basic design are recommended.

• Review drafts of documents prepared and offer comments.
• Review each Office Action and offer comments for how to respond.
What are the costs for getting a patent?

Beware of patenting things yourself

**You only get one chance to file the application with the USPTO**

- No “new matter” rule: once the application is filed, no new matter may be added. (35 U.S.C. 132)
  - There are no exceptions to this rule.
  - Your patent application will be judged and interpreted according to the same standards and conventions that applications prepared by professionals follow.
- At a minimum, become as educated as possible on the process and its requirements before doing it yourself.
  - Use the resources listed at the end of this presentation.
- Be sure to keep the U.S.P.T.O. up-to-date with your current address.
- If possible, get a professional or a person who has successfully gone through the process before to review your work and give you comments.
- Weigh the value of the invention with the cost of being unable to get a patent for the invention due to an inadequate or poor application.
Does product X infringe patent Y?

When does one need to consider patent infringement?

- When developing a product
  - Investors in a concept will want to know what is the possibility that going forward with a concept will result in a lawsuit from a patent holder.
  - Assess the risk by doing an infringement analysis of existing live patents.
- Once a patent is granted
  - It is the patentee’s right and responsibility to enforce the patent.
  - Patrol the marketplace for things that may infringe the patent.
  - Decide who to go after by doing an infringement analysis of available items in view of the claims of your issued patents.
Does product X infringe patent Y?

How does one determine patent infringement?

Focus on the claims of the patent!
- Claims - define the scope of the right that may be enforced

Infringement analysis is a two-step process:
- claims of the patent must be interpreted properly
- the product or process must be compared against the properly interpreted claims
  - literal infringement: each element in the claim must be present in the product
  - non-literal infringement under the doctrine of equivalents
    - public policy rationale: a patent would not be worth very much if minor, insubstantial changes can take a product out of the scope of a patent
    - continuously evolving area of law
Claim construction

Claim construction is an art.
- Lots of established rules for how to interpret specific words in claims

A few basic rules of claim construction:
- claim terms are interpreted from the perspective of the hypothetical person having ordinary skill in the art (the PHOSITA)
  - Not the meaning a judge, jury, or technical expert would give to it
- claim terms are given their ordinary and customary meaning to the PHOSITA
  - Exception: patentee may be her own lexicographer
    - Patentee may choose to use a claim term in a way that is different from its common, ordinary meaning
      - “as used herein, the term ‘heavy’ means one or more pounds”
Does product X infringe patent Y?

Format of a claim

Claim listing starts with:
• I claim:
• We claim:
• The item claimed is:
• The invention claimed is:

Each claim
• Starts with a capital letter,
• Ends in a period, and
• Does not have periods within the claim.
  • Exception: use of periods in abbreviations is permitted.

The invention claimed is:
1. An animal water bowl support comprising:
   a. a support configured to support a bowl pair comprising two bowls, each having a concave surface, with a first of said bowl surfaces facing upward, capable of holding water, and said second of said bowl surfaces facing away from upward, such that substantially no water remains in said second bowl surface and said second bowl surface can dry; and
   b. a bowl retainer, configured to couple said bowl pair to said support such that said bowl pair is releasably retained with a first of said surfaces facing upward for a period of time, and subsequently releasably and releasably retained with said second of said surfaces facing upward for a period of time.
Does product X infringe patent Y?

**Format of a claim**

Each claim includes

- a preamble,
- a transition word, and
- one or more elements.

1. **An animal water bowl support** comprising:
   a. a support configured to support a bowl pair comprising two bowls, each having a concave surface, with a first of said bowl surfaces facing upward, capable of holding water, and said second of said bowl surfaces facing away from upward, such that substantially no water remains in said second bowl surface and said second bowl surface can dry; and
   b. a bowl retainer, configured to couple said bowl pair to said support such that said bowl pair is releasably retained with a first of said surfaces facing upward for a period of time, and subsequently releasable and releasably retained with said second of said surfaces facing upward for a period of time.
Does product X infringe patent Y?

**Antecedent basis**

• The first use of an element is generally preceded by indefinite article, such as “a” or “an”.

• Subsequent references to the element must use a definite article, such as “the” or “said”.

1. An animal water bowl support comprising:
   a. a support configured to support a bowl pair comprising two bowls, each having a concave surface, with a first of said bowl surfaces facing upward, capable of holding water, and said second of said bowl surfaces facing away from upward, such that substantially no water remains in said second bowl surface and said second bowl surface can dry; and
   b. a bowl retainer, configured to couple said bowl pair to said support such that said bowl pair is releasably retained with a first of said surfaces facing upward for a period of time, and subsequently releasable and releasably retained with said second of said surfaces facing upward for a period of time.
Does product X infringe patent Y?

Claim construction - a few special words

Comprising means that the item includes at least the listed elements, but may include other elements.

Consisting of means that the item includes only the listed elements, and does not include any others.

Coupled to - items interplay in some way
  Rotatably coupled to - items are arranged so that one rotates with respect to the other

Numbers, quantities and dimensions:
  • Plurality - two or more items
  • Three - exactly three items only
  • At least three – three or more
  • 3 inches - exactly three inches (with some equivalents under Doctrine of Equivalents)
  • About 3 inches - the exact meaning determined from the written description
Does product X infringe patent Y?

Do the following product variations infringe claim 1?

An item infringes a claim if it meets each and every element of the claim.

Product variations:
- A product with only one bowl that moves up and down.
- A product with three bowls that move up and down.
- A product in which the water bowls are emptied by removing a plug from the bottom of the bowl, so that the bowls stay facing upward.

1. An animal water bowl support comprising:
   a. a support configured to support a bowl pair comprising two bowls, each having a concave surface, with a first of said bowl surfaces facing upward, capable of holding water, and said second of said bowl surfaces facing away from upward, such that substantially no water remains in said second bowl surface and said second bowl surface can dry; and
   b. a bowl retainer, configured to couple said bowl pair to said support such that said bowl pair is releasably retained with a first of said surfaces facing upward for a period of time, and subsequently releasable and releasably retained with said second of said surfaces facing upward for a period of time.

U.S. Patent No. 7,219,623
Does product X infringe patent Y?

**Independent vs. Dependent Claims**

Independent claim: stands alone
Dependent claim: depends from another claim
• specifies the claim that it depends from
  • interpreted to incorporate all of the elements of the parent claim
• narrows the subject matter of the claim in some way

2. The watering bowl support of claim 1 said bowl retainer comprising an axle that rotatably couples said bowl pair to said support.
Does product X infringe patent Y?

*Process, or method, claims*

- Claim interpretation rules are similar to claims for machines.
- The claim lists the steps in the method.
- In general, the steps do not need to be followed in the order listed.
  - A process that performs all of the steps, in any order, would infringe.
- Numbered or lettered steps may imply that the steps must be followed in the order listed.
Resources

Patent Attorneys and Agents

An inventor who interacts directly with the U.S.P.T.O. is a “pro se” inventor.

U.S.P.T.O. keeps a register of individuals who are permitted to practice (i.e., represent other people) before the U.S.P.T.O. regarding patent matters.

- Individuals must satisfy various requirements, including having a science or engineering degree, or its equivalent, and passing the Patent Bar Examination.
- Patent Attorney: one who has satisfied the U.S.P.T.O. requirements for registration and is also an attorney (i.e., completed law school, passed the bar exam for a particular state, and admitted to practice in that particular state).
- Patent Agent: one who has satisfied the U.S.P.T.O. requirements for registration and is not an attorney
Resources

Patent Attorneys and Agents

U.S.P.T.O. Patent Attorney/Agent Search website:
https://oedci.uspto.gov/OEDCI/

<table>
<thead>
<tr>
<th>Last Name</th>
<th>Detweiler</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
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<td>Middle Name</td>
<td>D</td>
</tr>
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<tr>
<td>Firm Name</td>
<td>Lahive and Cockfield, LLP</td>
</tr>
<tr>
<td>Address</td>
<td>One Post Office Square</td>
</tr>
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<td>City</td>
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<tr>
<td>Primary Telephone</td>
<td>(617) 227-7400</td>
</tr>
<tr>
<td>Registration Number</td>
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<tr>
<td>Attorney/Agent</td>
<td>ATTORNEY</td>
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<tr>
<td>Date Registered as Agent</td>
<td>04/28/1998</td>
</tr>
<tr>
<td>Date Registered as Attorney</td>
<td>05/11/1999</td>
</tr>
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- Tips for selecting an attorney/agent
  - Pick someone local or get a reference (e.g., from local inventors’ group)
  - Find someone you are comfortable talking to
  - Read their patents
- Law Firms may have both patent attorneys and patent agents
  - Technical Specialists: people training to be patent agents or attorneys
Resources

Recommended books

- Patent Savvy for Managers: Spot & Protect Valuable Innovations in Your Company, by Kirk Teska
  - Read to become patent literate, meaning that you understand the basics of patent law.
- Patent Pending in 24 Hours, by Richard Stim & David Pressman
  - Read to get a sense of what is involved in preparing a provisional patent application.
- Patent It Yourself, by David Pressman
  - Read to get a sense of what is involved in preparing a patent application.
  - Read to understand the U.S.P.T.O. requirements regarding patent drawings.
  - Read to learn how to draft better claims for protecting your invention.

*All of the books above are on reserve (or will be on reserve soon) at the MIT Libraries.
Resources

Recommended websites

- United States Patent and Trademark Office
  - http://www.uspto.gov
  - Inventor resources: http://www.uspto.gov/web/offices/com/iip/index.htm
  - Telephone hotline: http://www.uspto.gov/web/offices/pac/dapp/pacmain.html

- Inventors Section of About.com
  - http://inventors.about.com

- Numerous patent-related blogs
  - http://www.patentlyo.com
    - to get a sense of the kinds of things that patent practitioners are concerned with day in and day out
Resources

Patent Law

The U.S.P.T.O. M.P.E.P. index page includes links to
• Consolidated Laws (35 U.S.C.)
• Consolidated Rules (37 C.F.R.)
• M.P.E.P.

http://www.uspto.gov/web/offices/pac/mpep/index.htm
Should one apply for a patent?

Factors to consider

- Is it likely to be patentable?
- Lifetime of the product vs time to receive a patent and lifetime of the patent.
  - Will the product be obsolete before the patent can be acquired?
- Will the first to market advantage be enough to maintain a market lead?
- How easy it is to copy the invention?
- How important is it to the business to have patent rights for the invention?
- Will resources be available to enforce the patent?
- Would other forms of intellectual property (e.g., trade secrets, copyright, trademarks) be more appropriate?

Whether to get a patent is primarily a business, not legal, decision!
At Least 10 Things You Should Know About Patents

1. What is a patent.
2. International patents rights are separate from U.S. patent rights.
3. What is an “invention”.
4. What it means to be an inventor of an invention.
5. How to determine whether invention Z is likely to be patentable.
6. The process for getting a patent.
7. The costs involved in getting and maintaining a patent.
8. How to determine if product X possibly infringes patent Y.
9. How to locate resources available for help in getting a patent.
10. Things to consider in determining whether to apply for a patent.
Questions & Contact Information

Elaine Yang: eyang@lahive.com or elaine@mit.edu

• May email general questions about Intellectual Property/Patents.
  • Will not be giving legal advice
• Give time to respond
  • wait at least 2 weeks before following up, but please do follow up