The USPTO: Patent Application and Examination Processes

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Objectives

• Overview of Intellectual Property (IP)
• Patents
  – What is a patent and what is its role
  – Application/Examination processes and costs
• Tools and Resources
• Recent Changes in Patent Law
# Overview of Intellectual Property

<table>
<thead>
<tr>
<th>What’s Protected?</th>
<th>Examples</th>
<th>Protection Lasts for:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utility Patent</strong></td>
<td>Inventions</td>
<td>iPod, chemical fertilizer, process of manipulating genetic traits in mice</td>
</tr>
<tr>
<td><strong>Design Patent</strong></td>
<td>Ornamental (non functional) designs</td>
<td>Unique shape of electric guitar, design for a lamp</td>
</tr>
<tr>
<td><strong>Copyright</strong></td>
<td>Books, photos, music, fine art, graphic images, videos, films, architecture, computer programs</td>
<td>Michael Jackson’s Thriller (music, artwork and video), Windows operating system</td>
</tr>
<tr>
<td><strong>Trade Secret</strong></td>
<td>Formulas, methods, devices or compilations of information which is confidential and gives a business an advantage</td>
<td>Coca-Cola formula, survey methods used by a pollster, new invention for which patent application has not been filed</td>
</tr>
<tr>
<td><strong>Trademark</strong></td>
<td>Words, symbols, logos, designs, or slogans that identify and distinguish products or services</td>
<td>Coca-Cola name and distinctive logo, Pillsbury doughboy character</td>
</tr>
</tbody>
</table>
Overview of IP: The Mobile Phone

Trademarks:
- Made by “Apple” (logo)
- Product “iPhone”
- Software “iOS”, “Safari”

Patents:
- Semiconductor circuits
- Touch Screen
- Battery/Power Control
- Antenna
- Speaker
- Device Housing

Trade secrets:
- ???

Designs (some of them patented):
- Form of overall phone
- Placement of button & speaker
- Color pattern of trim
- Surface finish
Overview of IP: The USPTO in 2014

- 8,611 Patent Examiners
- 618,330 Patent Applications Filed
- 329,613 Patents Issued
- 429 Trademark Examining Attorneys
- 336,275 Trademark Applications
- 206,555 Certificates of Registration

USPTO Headquarters in Alexandria, VA

April 15
The Deputy Commissioner for Patent Operations oversees all patent examining functions in the nine Patent Technology Centers.
United States Patent and Trademark Office
Technology Centers

- Technology Center 1600: Biotechnology and Organic Chemistry.
- Technology Center 1700: Chemical and Materials Engineering fields.
- Technology Center 2400: Computer Networks, Multiplex, Cable and Cryptography/Security.
- Technology Center 2600: Communications.
- Technology Center 2800: Semiconductors, Electrical and Optical Systems and Components.
- Technology Center 2900: Designs.
- Technology Center 3600: Transportation, Electronic Commerce, Construction, Agriculture, Licensing and Review.
- Technology Center 3700: Mechanical Engineering, Manufacturing and Products.

April 15
What is a Patent?

• A Property Right
  – Right to *exclude others* from making, using, selling, offering for sale or importing the claimed invention
  – Limited term
  – Territorial: protection only in territory that granted patent; **NO world-wide patent**

• Government grants the property right in exchange for the disclosure of the invention
The Role of the Patent System

- Protect Inventions
- Encourage Inventions
- Promote commercialization and application of invention
- Accelerate the commercialization of invention to the whole society
Types of Patents

Utility:
New and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof
→ How an invention works

Design:
New, original & ornamental design
→ How an invention looks

Plant:
Asexually-produced distinct and new variety of plant
Types of Applications

**Provisional:**
- One year period
- Filed for filing date priority
- No claims required
- Not examined, so no patent
- Not allowed for design

**Non-Provisional:**
- 20-year patent protection from filing date
- Examined for patentability
- Claims required
The invention claimed is:
1. A knee prosthesis, comprising:
   a. a femoral component configured to fit on a distal end of a femur, the femoral component comprising a medial condyle and a lateral condyle segment wherein the medial condyle comprises an anterior-medial condyle segment, a posterior-medial condyle segment and a distal-medial condyle segment connecting the anterior-medial condyle segment to the posterior-medial condyle segment, wherein the distal-medial condyle segment is continuously convexly curved between the anterior-medial condyle segment and the posterior-medial condyle segment; wherein the lateral condyle comprises an anterior-lateral condyle segment, a posterior-lateral condyle segment, and a distal-lateral condyle segment connecting the anterior-lateral condyle segment to the posterior-lateral condyle segment; the distal-medial condyle segment projecting further distally relative to the distal-lateral condyle segment; and
   b. a tibial component configured to fit on a proximal end of a tibia;

wherein the femoral and tibial components are configured such that, a posterior-most extent of the medial condyle overhangs in a posterior direction a posterior-most extent of the tibial component, the overhang being approximately two millimeters, and a posterior-most extent of the lateral condyle does not extend further in the posterior direction than the posterior-most extent of the tibial component.

U.S. Patent No. 8,647,389 to Otto et al.
Owned by Smith & Nephew, Inc. and University of Pennsylvania
Time and Costs

• Average Pendency for Utility & Plant Applications: 28.6 months as of January 31, 2015

• Many fees reduced for small entity and micro entities

• Filing, Search, Examination & Issue Fees:
  – Utility: $2560/1280/640
  – Design: $1320/660/330
  – Provisional: $260/130/65

• Maintenance Fees due 3.5, 7.5, and 11.5 years after patent issues (e.g. $1600/3600/7400)

• Fees in effect as of March 1, 2015
Patent Application Process

Office of Patent Application Processing (OPAP)
1. Collect Fees
2. Scanning-Convert All Paper to Image
3. Initialization-Assign Serial Numbers
5. Assign Filing Date
6. Assign Class, Art Unit

Examination
1. 2nd Formalities Review
2. Patentability?
   - Patentable Subject Matter?
   - Utility?
   - Clearly Described?
   - Enabled?
   - Claims Definite?
   - Novel?
   - Non-obvious?

Abandonment

Office of Data Management (ODM)
1. 3rd Formalities Check
2. Collect Issue Fee
3. Convert Image to Text
4. Assign Patent Number

PG Pubs

Abandonment

Patent Application 600,000+/yr

April 15
Patent Examination Process Overview

Application is filed by Inventor or Assignee

USPTO Pre-Exam

Amendment and/or argument

EXAMINER

Rejection and/or objection

Notice of Allowance

USPTO Grants Patent

APPLICANT

Appeal

Abandonment
Patent Examination

• Patent Examiner reviews contents of the application for compliance with all U.S. legal requirements

• Initial Burden is on the examiner: An applicant is entitled to a patent unless...
  – Requirements of U.S. Law are not met
What Does a Patent Examiner Do?

- **Reads and understands** the invention set forth in the specification
- Determines whether the application is adequate to define the **metes and bounds** of the claimed invention
- Determines the **scope of the claims**
- **Searches** existing technology for claimed invention
- Determines **patentability** of the claimed invention
Example of First Office Action Process

1. Examiner selects application from PALM docket in eDAN

2. Examiner reviews application, formulates search strategy, and performs prior art search

3. Examiner reviews prior art, applies art to application, and authors office action

4. Office action is forwarded for review and signature (if necessary) then routed to TSS for recording in PALM

5. Office action is forwarded to mailing contractor and mailed to applicant

6. Office action is indexed and scanned into IFW
Utility patents are provided for a new, nonobvious and useful (35 U.S.C. 101):

- Process
- Machine
- Article of manufacture
- Composition of matter
- Improvement of any of the above
Invention must also be:

- Novel (35 U.S.C. 102)
- Nonobvious (35 U.S.C. 103)
- Adequately described and enabled (35 U.S.C. 112(a))
- Claimed by the inventor in clear and definite terms (35 U.S.C. 112(b))
The Office has a number of tools and resources to help applicants throughout the patent examination process and beyond.
Manual of Patent Examining Procedure (MPEP)


The USPTO continues to offer an online discussion tool for commenting on selected chapters of the Manual. To participate in the discussion and to contribute your ideas go to: http://uspto-mpep.ideascale.com.

Note: For current fees, refer to the Current USPTO Fee Schedule.

Consolidated Laws - The patent laws in effect as of May 15, 2014.

Consolidated Rules - The patent rules in effect as of May 15, 2014.

MPEP Archives (1948 - 2012)

Current MPEP:

Searchable MPEP

See the user manual or quick reference guide for help with search features (e.g., default operators, proximity searches, and wild cards) and navigation.

The documents updated in the Ninth Edition of the MPEP, dated March 2014, include changes that became effective in November 2013 or earlier. All of the documents have been updated for the Ninth Edition except Chapters 800, 900, 1000, 1300, 1700, 1800, 1900, 2000, 2300, 2400, 2500, and Appendix P. More information about the changes and updates is available from the "Blue Page - Introduction" of the Searchable MPEP or from the "Summary of Changes" link to the HTML and PDF versions provided below.
Patent Application Initiatives

You can get to the program pages by selecting a tile.

There are numerous programs that may speed up the examination process.

http://www.uspto.gov/patent/initiatives/uspto-patent-application-initiatives-timeline
Track One – Prioritized Examination

• Goal to provide a final disposition within twelve months, on average, of prioritized status being granted.
• Fee – $4000/$2000 small entity as of 3/1/2015
• Claim Limits – 4 Independent, no more than 30 claims
Under this Program, an applicant is entitled to a first action interview, upon request, prior to the first Office action on the merits.

Need to file a Petition.

http://www.uspto.gov/patents/init_events/faipp_full.jsp
Ombudsman Program

- Enhances the USPTO's ability to assist applicants or their representatives with issues that arise during patent application prosecution.

Contact an Ombudsman by:

http://www.uspto.gov/patents/ombudsman.jsp
United States Patent and Trademark Office

IP Awareness Assessment Tool

http://www.uspto.gov/inventors/assessment/

Welcome to the Intellectual Property Awareness Assessment Tool. The IP Assessment includes the below five general categories, that are included in all assessments:
- IP Strategies & Best Practices
- International IP Rights
- IP Asset Tracking
- Licensing Technology to Others
- Using Technology of Others

There are five additional categories that all can take or, which may be customized through a Pre-Assessment. These five categories include:
- Copyrights
- Trade Marks
- Trade Secrets
- Utility Patents

Not all businesses have all categories of IP Assess so they have an opportunity to opt out of certain categories by using the customizer or Pre-Assessment or may opt to take the full assessment of ten categories containing 62 questions.

The full assessment requires about 20-30 minutes to complete. The customizer or Pre-assessment can reduce the required time by 10-15 minutes.

Before starting the assessment, please note:
- Save the link for this page as a favorite/bookmark on your browser.
- In the "Internet options" of your browser, delete/restart history on exit. This will allow you to return and resume your assessment session in case you cannot finish it in one sitting. This will also allow you to access your training materials and assessment results at your convenience.
- If you are answering the assessment questions, choose the answers that best apply to your business or circumstances as an Independent Inventor or Individual, where applicable, choose all the responses that apply to your situation.
- Responses or data collected in the assessment are not stored or used by the USPTO or NIST NCP.
Patent Litigation Information

http://www.uspto.gov/patents/litigation/index.jsp

See the topics below for answers to common questions:

- I'VE BEEN SUED...
- I GOT A LETTER...
- RELATED LAWSUITS
- ABOUT PATENT INFRINGEMENT
- ABOUT PATENTS
- RESOURCES
- GLOSSARY
New Changes to Patent Law


President Barack Obama signs the America Invents Act September 16, 2011, at Thomas Jefferson High School for Science and Technology in Alexandria, VA.
### America Invents Act (AIA)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>A person shall be entitled to a patent unless—</td>
<td>Look to 102(a)(1)</td>
</tr>
<tr>
<td>(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or</td>
<td></td>
</tr>
<tr>
<td>(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or</td>
<td>Look to 102(a)(2)</td>
</tr>
<tr>
<td>(c) He has abandoned the invention, or No corresponding provision</td>
<td></td>
</tr>
<tr>
<td>(d) The invention was first patented or caused to be patented, or was the subject of an inventor’s certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor’s certificate filed more than twelve months before the filing date of the application in this country, or</td>
<td></td>
</tr>
<tr>
<td>(e) The invention was described in (1) An application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) A patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except than an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language, or</td>
<td>Look to 101 and 115</td>
</tr>
<tr>
<td>(f) He did not himself invent the subject matter sought to be patented, or</td>
<td></td>
</tr>
<tr>
<td>(g) during the course of an interference conducted under section 135 or section 291, another inventor involved therein establishes, to the extent permitted in section 104, that before such person’s invention thereof the invention was made by such other inventor and not abandoned, suppressed, or concealed, or (2) Before such person’s invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it.</td>
<td>No corresponding provision</td>
</tr>
</tbody>
</table>

**Abandonment of invention**

**Premature foreign patenting**

**Derivation**

**Prior invention by another**
America Invents Act (AIA)

- When applications are or are not under the First Inventor to File provisions of the AIA:
  
  **Filed before 3/16/2013**
  
  **Filed on or after 3/16/2013 and AT LEAST ONE foreign priority or domestic benefit claim to an appl’n filed before 3/16/2013**
  
  **Filed on or after 3/16/2013 and ALL foreign priority or domestic benefit claims, if any, are to an appl’n filed on or after 3/16/2013**
Grace Period Exceptions under 35 U.S.C. 102

No Exceptions

Exceptions Under 102(b)(1) (A) & (B)

Grace Period

1 Year

Effective Filing Date of Claimed Invention

April 15
The Cooperative Patent Classification (CPC) was initiated as a joint partnership between the USPTO and the EPO where the Offices have agreed to harmonize their existing classification systems (ECLA and USPC, respectively) and migrate towards a common classification scheme.

Patent Law Treaties Implementation Act

• Became effective December 18, 2013
• Filing Date Requirements
  – The filing date of nonprovisional application is the date on which a specification, with or without claims, is received in the Office
• Restoration of Patent Rights (easier to revive an application or patent)
• Requirement of at least two months for replies
  – ex. Restrictions, Notice of Non-Compliance

http://www.uspto.gov/patents/init_events/patent_law_treaty.jsp
Resources

- Inventor Resources: http://www.uspto.gov/learning-and-resources/inventors-entrepreneurs-resources
Thank you.