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></th>
<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>
<td>20 years from the date of filing regular patent application</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>
<td>15 years (for applications filed after May 13, 2015)</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>
<td>The life of the author plus 70 years (or for some works, 95 years from first publication)</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>
<td>As long as information remains confidential and functions as a trade secret</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>
<td>As long as business continuously uses trademark in connection with goods or services</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:
- ???

Copyrights:
- Software code
- Instruction manual
- Ringtone
- …

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
• The Deputy Commissioner for Patent Operations oversees all patent examining functions in the nine Patent Technology Centers.
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.
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.
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 Initial Patent Examination (OIPE)
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?

Post Examination (Publications)
1. 3rd Formalities Check
2. Collect Issue Fee
3. Convert Image to Text
4. Assign Patent Number

Abandonment

PG Pubs

Patent Application 400,000+/yr

Abandonment

Abandonment

Abandonment

Abandonment
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

Appeal

Abandonment

APPLICANT
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
Patentability Requirements

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 specification shall contain a **written description** of the invention, and of the manner and process of **making and using** it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.
• The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

• (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, 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. Patentability shall not be negatived by the manner in which the invention was made.
1. A method of inducing an anti-Herpes Simplex Virus (HSV) immune response in a subject comprising the steps of (a) administering a composition comprising an attenuated HSV mutant to said subject, wherein said attenuated HSV mutant consists of a single inactivating mutation, wherein said inactivating mutation is a deletion of base pairs (bp) 369-1479 of SEQ ID NO: 7, which is a Us8 gene, and (b) administering a booster dose of said composition comprising said attenuated HSV mutant, wherein said attenuated HSV mutant has a defect in neuronal spread in the anterograde and retrograde directions, wherein said booster dose enhances the immune response induced by the initial administration of said attenuated HSV mutant.
• The Office has a number of tools and resources to help applicants throughout the patent examination process and beyond.
Manual of Patent Examining Procedures (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.
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
First Action Interview Pilot

• 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
IP Awareness Assessment Tool

http://www.uspto.gov/inventors/assessment/
Patent Litigation Information

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

Thank you.

www.uspto.gov
https://www.facebook.com/uspto.gov
independentinventor@uspto
http://www.youtube.com/user/USPTOvideo/