Introduction to Patents

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Outline

• Types of Intellectual Property
• What is Patentable?
• Types of Patents
• How to read a patent (and claims)
• The Patent Process
• Tools for Applicants
# 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>Utility Patent</td>
<td>Inventions</td>
<td>iPod, chemical fertilizer, process of manipulating genetic traits in mice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 years from the date of filing regular patent application</td>
</tr>
<tr>
<td>Design Patent</td>
<td>Ornamental (non functional) designs</td>
<td>Unique shape of electric guitar, design for a lamp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14 years</td>
</tr>
<tr>
<td>Copyright</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></td>
<td></td>
<td>The life of the author plus 70 years (or for some works, 95 years from first publication)</td>
</tr>
<tr>
<td>Trade Secret</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></td>
<td></td>
<td>As long as information remains confidential and functions as a trade secret</td>
</tr>
<tr>
<td>Trademark</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>
<tr>
<td></td>
<td></td>
<td>As long as business continuously uses trademark in connection with goods or services</td>
</tr>
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</table>
What is a Patent?

U.S. Constitutions, Article I, Section 8:

“The Congress shall have power...to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their writings and discoveries.”

• This forms the basis for Patents, Trademarks, and Copyrights
• The USPTO examines only Patents and Trademarks
What is a Patent?

• A Property Right
  – Right to **exclude others** from making, using, selling, offering for sale or importing the claimed invention
  – For a limited term
  – In exchange for disclosing the invention to the public
  – Territorial: protection only in territory that granted patent; **NO such thing as a world-wide patent**
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
Design Patents v. Utility Patents

**Design Patents** (35 U.S.C. § 171)
- Protect the way an article looks
- No provisional application or maintenance fees
- 14 year term, from issue

**Utility Patents** (35 U.S.C. § 101)
- Protect the way an article is used and works

Can obtain **both** a design and utility patent
- If invention resides both in the article’s utility and ornamental appearance.
Design Patents
(35 U.S.C. § 171)

Scope of Design Claim:

• Protect the way an article (or part of an article) looks
• Single claim, that refers to the picture (drawing)
• No provisional application or maintenance fees
• 14 year term, from issue

(1) Surface ornamentation applied to an article
(2) Configuration or shape embodied in an article
(3) Configuration/Shape and Surface ornamentation for an article
What does a Utility Patent Look Like?

What the Inventor Gets

What Appears Online
What is patentable?

NEW, USEFUL, NONOBVIOUS, ENABLED & CLEARLY DESCRIBED

- Process
- Machine
- Manufacture
- Method of making
- Improvements thereof
Subject Matter Eligibility

Four Statutory Categories of Invention:

- Process: a series of steps
- Machine: a concrete thing consisting of parts or devices
- Manufacture: an article produced from raw or prepared materials
- Composition of Matter: a composition of substances or composite article

• Courts have interpreted the categories to exclude:
  - “Laws of nature, natural phenomena, and abstract ideas”
  - Several court cases pending on excluded subject matter.
Types of Patent Applications

- **Provisional** - not examined, automatically abandoned 1 year after filing.

- **Non-Provisional** (commonly called “Utility”) - may claim priority to prior US Utility or Provisional applications, or a PCT. Term is 20 years from earliest claimed filing date.

- **Patent Cooperation Treaty (PCT, international) stage and Utility application filed under 35 USC §371 (national stage)** - PCT application is filed with WIPO and an ‘opinion’ is issued. At the national stage, becomes a US Utility application.
What does “Patent Pending” mean?

- As soon as a patent application (provisional or utility) is applied filed, the owner may mark their products as “patent pending”. However, this is merely a warning, and DOES NOT confer any legal rights.

- A patent may only be legally enforced AFTER it is issued.
Patent Examination Process Overview

Application is filed by Inventor or Assignee

USPTO Pre-Exam

EXAMINER

Amendment and/or argument

Rejection and/or objection

Notice of Allowance

USPTO Grants Patent

APPLICANT

Appeal

Abandonment
Patent Examination

- The Patent Examiner reviews contents of the application for compliance with all U.S. patent legal requirements
- “An applicant is entitled to a patent unless...” * The requirements of U.S. patent law are not met
- The burden is on the examiner to show if a patent is not warranted

*(35 USC §102)*
Anatomy of a patent

• Title
• Abstract
• Background Of Invention
  – Identifies the Field of Invention in which Applicant the most relevant subject area to which the inventor’s invention belongs.
  – A Description of Related Art used by Applicant to:
    • Identify existing relevant inventions.
    • Discuss any problems with these existing inventions.
Anatomy of a patent, *con’t*

- **Brief Summary Of Invention**
- **Brief Description Of Drawings**
- **Detailed Description Of Invention**
- **Claims**: The legal protection conferred when a patent is granted is defined by the **CLAIMS**, not by any of the other parts.
What is patentable?

Specific

Not valuable

Invention

Not patentable

General

What information should a patent claim contain?
Claim Interpretation

Is the careful consideration of each and every word (including grammar!) in a claim to determine what the claim covers.

Each claim is considered on its own.
A claim in a Utility application or patent has three (3) main parts

– A **preamble** or the introduction;

– A **transitional phrase** of:
  • comprising (open);
  • consisting essentially of (excludes materials that materially affect the basic and novel characteristics of the invention); and
  • consisting of (closed); and

– A **body** reciting the elements of the invention.
1. A method of emptying a water-filled paddle boat while in the water, said method **comprising**: positioning a flotation mat along a side of said paddle boat; flexibly attaching a side of said flotation mat to said side of said paddle boat; and rolling said paddle boat toward an upside-down configuration onto said flotation mat to drain said paddle boat.
Guidance for Claim Interpretation

Consideration of the Specification:

• background description
• explicit definitions
• general description
• preferred embodiments
• working examples
• prophetic examples

Things to consider outside of the specification:

• prior art and technical disclosures
• declarations and experimental evidence
• technical and English language dictionaries
What May an Examiner Do?

- Advise on advantages of, and appropriate classification fields for, pre-examination search
- Advise on advantages of securing services of a competent patent attorney or agent
- Advise on Office fees and Office procedures in general
- Assist public in conducting a search, short of rendering patentability advice or opinion as to whether an application should be filed
What May an Examiner NOT Do?

• Apply for a patent
• Represent someone who has applied for a patent
• Give an opinion on patentability (other than in the course of their work)
• Comment on the validity of an issued patent—all issued patents are presumed to be valid
Overview of the PCT System

When should you file?

United States is a **First Inventor to File System**!

- **Looking for international protection?**
  - You must file **before** public disclosure

- **Only want US protection?**
  - You can file within **one year after** public disclosure
Get patent protection fast!

- File a Provisional application
  - Locks in filing date
- Enter Track One
  - Accelerates examination process (avg. < 1 year)
- Get Help!
  - Work on a strategy
  - Seek Pro Bono Assistance
  - Talk to the examiner!
  - Seek the assistance of a registered practitioner
Patent & Trademark Resource Centers (PTRC)

Take advantage of local Patent & Trademark Resource Centers to get help getting started with patents or trademarks.

Find a PTRC near you

Learn About the Process

Patents
- General Information Concerning Patents
  Find out if a utility, design, or plant patent is right for you
- Patent Process Overview

Trademarks
- Trademark Basics
  Learn about trademarks and find out if it’s right for you to apply for registration
- Trademark Process Overview

Patents & Trademarks Initiatives

USPTO's Prioritized Patent Examination Program
Track One and Prioritized Examination for RCEs

Patent Trial and Appeal Board
Resources

• The USPTO home page: http://www.uspto.gov/ (newly updated in 2015)
• Inventor Resources: http://www.uspto.gov/inventors/index.jsp
• Scam Prevention: http://www.uspto.gov/inventors/scam_prevention/index.jsp
• Pro Se (Inventor-prosecuted) & Pro Bono (free legal representation): http://www.uspto.gov/inventors/proseprobono/index.jsp
The Pro Se Assistance Program offers various services for the public, including:

- Dedicated personnel for assisting pro se applicants
- Walk-in assistance for the general public at USPTO Headquarters
- A fully equipped public computer workstation for walk-in visitors at the USPTO
- Targeted support to connect applicants with relevant resources and information
- Online resources
Thank You!

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University Outreach Initiative