Basics of Patent Protection

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New York City Region
Outline

• Overview of Intellectual Property
• What is a Patent?
• Why get a Patent?
• Who can file for a Patent?
• Types of Patents
• Requirements for Patentability
• How is a Patent granted?
• How long does it take to get a Patent in the United States?
• Patenting Considerations
• Trade Secret vs. Patent
# 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>
Some IP found in a mobile phone

**Trademarks:**
- Made by "Nokia"
- Product "N95"
- Software "Symbian", "Java"

**Patents:**
- Data-processing methods
- Semiconductor circuits
- Chemical compounds
- Battery/Power Control
- Antenna

**Copyrights:**
- Software code
- Instruction manual
- Ringtone
- ...

**Trade secrets:**
- ???

**Designs (some of them registered):**
- Form of overall phone
- Arrangement of buttons in oval shape
- Three-dimensional wave form of buttons
- Sliding screen
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
Quid Pro Quo

Time-Limited Monopoly

Discloses Invention

Franklin
Role of the Patent System

- Protect Inventions
- Encourage Inventions
- Promote commercialization and application of invention
- Accelerate the commercialization of invention to the whole society
First U.S. Patent

Patent No x-1
(July 31, 1790)

Signed by
George Washington
Why Get a Patent?

• A patent can be
  – Used to gain entry to a market
  – Used to exclude others from a market
  – Used as a marketing tool to promote unique aspects of a product
  – Sold or licensed, like other property
Who Can File for a Patent?

• Anyone...from anywhere may apply, with only one exception:
  – Officers and employees of the USPTO
    35 U.S.C. §4 - Restrictions on officers and employees as to interest in patents
    Officers and employees of the Patent and Trademark Office shall be incapable, during the period of their appointments and for one year thereafter, of applying for a patent and of acquiring, directly or indirectly, except by inheritance or bequest, any patent or any right or interest in any patent, issued or to be issued by the Office...

• An assignee, a person to whom the inventor is under an obligation to assign, or a person who otherwise shows sufficient proprietary interest
Basis for Protection of Patents and Copyright in the U.S.

**US Constitution, Article 1, Section 8, Clause 8**

—“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.”
Overview of Patent Law

Sources of Law

• Statutory

• Rules: 37 C.F.R. (Patent Regulations)
  – Rules governing the operation of the USPTO; may be changed by the USPTO following the proper procedure

• Case Law
  – The United States has a common law system
  – Court cases shape the interpretation of laws
Types of U.S. Patents

• Utility – How an invention works
  – Inventions
  – Functionality
  – 20 year term from filing date

• Design – How it looks
  – ornamental design described & shown
  – 14 year term from grant date

• Plant – new variety of asexually reproduced plant.
  – 20 year term from filing date
Utility Patent

Utility Patent

(12) United States Patent
Monose

(75) Inventor: Hiroshi Moshine, Kyoto (JP)
(72) Assigned To: Nintendo Co., Ltd., Kyoto (JP)
(70) Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 237 days.
(21) Appl. No.: 12/078,894
(32) Filed: Apr. 4, 2008
(15) Foreign Application Priority Data
(51) Int. Cl. 
G06F 20/00 (2006.01)
(52) U.S. Cl. 
718/19B, 718/17, 719/24a, 345/32b
(58) Field of Classification Search
None
(36) References Cited
U.S. PATENT DOCUMENTS
5,219,364 A 5/1993 Zemel et al. 7,12/207
5,249,912 A 5/1993 Zemel et al. 7,12/207
16 Claims, 17 Drawing Sheets

(10) United States Patent
Geosled

(75) Inventor: Kevin Geosled, Chicago, Ill. (US)
(72) Assigned To: Nintendo Co., Ltd., Kyoto (JP)
(70) Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 237 days.
(21) Appl. No.: 06/318,613
(22) Filed: Apr. 4, 2008
(15) Foreign Application Priority Data
(51) Int. Cl. 
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(52) U.S. Cl. 
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5,219,364 A 5/1993 Zemel et al. 7,12/207
5,249,912 A 5/1993 Zemel et al. 7,12/207
16 Claims, 17 Drawing Sheets

(13) Patent No.: US 8,151,007 B2
(14) Date of Patent: Apr. 3, 2012

(13) Patent No.: US 6,237,152 B1
(14) Date of Patent: May 29, 2001

22 Claims, 3 Drawing Sheets
Design Patent

• Protects the way an article looks, including
  – its shape and configuration, as well as
  – surface ornamentation applied to the article
Plant Patent PP20,900

(12) United States Plant Patent
Kelly et al.

(10) Patent No.: US PP20,900 P2
(45) Date of Patent: Mar. 30, 2010

(54) PIN OAK TREE NAMED ‘PWJR08’

(50) Latin Name: Quercus palustris
Varietal Denomination: PWJR08

(76) Inventors: Joseph C. Kelly: 6511 NE 41st St.,
Redmond, OR (US) 97756; Peter J.
Brentano, 5009 Davidson Rd. NE, St.
Paul, OR (US) 97137

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 6 days.

(21) Appl. No.: 12/315,680
(22) Filed: Dec. 4, 2008

(51) Int. Cl.
A01H 5/00 (2006.01)

(52) U.S. Cl. ............................................ Plt/225

(58) Field of Classification Search: ............... Plt/225
See application file for complete search history.

Primary Examiner—Susan B McCormick Ewoldt
(74) Attorney, Agent, or Firm—Klarquist Sparkman, LLP

(57) ABSTRACT

A new variety of Quercus palustris Pin Oak tree substantially
as herein shown and described, characterized particularly by
a combination of glossy foliage, new growth leaves that are
pubescent, upright growth habit and orange-red Fall color.

8 Drawing Sheets
Requirements for Patentability

- 35 USC §101 – Utility, Statutory Subject Matter
- 35 USC §112 (a) – Enablement, written description, and best mode
- 35 USC §112 (b) – Definiteness
- 35 USC §102 – Anticipation
- 35 USC §103 – Obviousness
35 U.S.C. 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 therefore, subject to the conditions and requirements of this title.”
Utility Patents

Types of Inventions

- Process/method/Use
- Machine/apparatus
- Composition of Matter/Product/Manufacture
- Improvement thereof
35 U.S.C. 112 (a)

- 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
35 U.S.C. 112 (b)

• The specification shall conclude with
  – one or more **claims**
    • particularly pointing out and
    • **distinctly claiming**
    • the subject matter which the applicant regards as his invention
35 U.S.C. 102

• 35 U.S.C. 102 - an invention must be new
  – An invention lacks novelty (i.e., is “anticipated”) only if
    • each and every element as set forth in the claim is found,
    • either expressly or inherently,
    • in a single prior art reference

  – Reference must teach every aspect of the claimed invention either explicitly or impliedly
    • Any feature not directly taught must be inherently present
• 35 U.S.C. 103 - an invention must be non-obvious
  – More than a mere obvious modification of the prior art

  – Reference teachings must somehow be modified to meet the claims
    • Modification must be one which would have been obvious to one of ordinary skill in the art at the time the invention was made
  – The teachings of multiple references may be combined under § 103
It’s all about the claims!

- Protection is limited to what is claimed
- During prosecution, claims are searched, may be rejected, amended, and allowed
- Specification may include numerous embodiments and elements
  - but only subject matter claimed is afforded protection
- Examiner works with the Applicant to focus the claims on novel aspects of the invention
- Broadest reasonable interpretation during examination
  - Search of invention may extend to unrelated areas
37 CFR 1.77(a): Elements of an Application

1. Utility application transmittal form.
2. Fee transmittal form.
   --Abstract, title, cross-references to related applications, background of invention, summary of invention, brief description of drawings, detailed description, claims, etc.
5. Drawings (if necessary).
6. Executed oath or declaration.
Flowchart of Patent Examination and Appeal System

(I) Patent Examination

Classification determines TC/AU for examination

Application undergoes Pre-Exam

Patent Examination

First Action On the Merits (FAOM)
Applicant(s) Response
Final Rejection
Applicant(s) Response
Advisory Action
Applicant(s) Appeal

Notice of Allowance
Applicant(s) pay issue fee

USPTO grants Patent

(II) Appeal Process

1. Applicant(s) Appeal
   - USPTO PTAB
     - Examiner Reversed
     - Examiner Affirmed

2. Notice of Allowance

3. Applicant(s) Appeal
   - Court of Appeals for the Federal Circuit (CAFC)
   - U.S. District Court for the Eastern District of Virginia (E.D. Va)

4. Applicant(s) Appeal
   - Supreme Court
Patent Examination

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

• Burden is on the examiner: An applicant is entitled to a patent unless...
  – Requirements of U.S. Law are not met

• Prior Art
  – Any information available for consideration when determining whether an invention is patentable
  – Public information
    • Patents, publications, articles, products, information on the internet, etc.
    • Printed publications – U.S. or foreign
  – Information available/dated before the filing date of application being examined
Examiners search the prior art
Other Types of Prior Art in the U.S.

• Prior sales or public use in the United States
  – If the U.S./foreign patent/publication or public use/sale in the U.S. is more than one year before the effective filing date
    • Applicant is barred from obtaining a patent

• AIA Changes to Prior Art (March 16, 2013)
  – Prior public use or sale anywhere in the world qualifies as prior art
Grace Periods

• Time prior to filing during which public disclosure by an inventor will not be considered prior art

• Differs in different jurisdictions.
  – U.S.: 1 year grace period (35 U.S.C. 102(b))
  – EU: No grace period.
  – JPO: 6-month grace period, under certain circumstances
Public Search Page
Public PAIR
How long does the process take?

• Utility Patents
  – 18.7 months avg. for a first office action
  – 30.6 months avg. for total pendency
• Design Patents
  – 13 months avg. for total pendency
• Time can vary depending on the technology and amount of prosecution
  – 597,318 application backlog
• 7,734 Patent Examiners

(May 2013 statistics)
Where to Patent?

• Patent protection can be an important part of overall business strategy in global marketplace

• Patent rights are territorial
  – Protection against infringing activities
    • Only within the country or region in which patent was granted

• NO world-wide patent
  – Must apply for and be granted a patent in each country or region of interest
Patenting Considerations

- Conduct cost/benefit analysis
  - Consider the shelf life of a product, e.g., changes in technology, style
  - Consider how the patent will be used, e.g. licensing, to exclude competitors
  - Consider whether the product can be used outside your market

- Determine patentability
  - Searching yourself vs. engaging a professional searcher

- Choose right patent attorney/agent

- Preparation of a thorough and accurate application

- Are there workarounds for the invention?

- Costs – Patents can be expensive.
  - Background work can help to keep attorney fees lower
  - Annuity & Maintenance fees
How much does it cost?

Fees

- USPTO Utility application
  - Filing fee
  - Search fee
  - Examination fee
  - Discount for small entities
  - Issue Fee
  - Maintenance Fees
due at 3 ½, 7 ½ & 11 ½ years

- Attorney fees
  - Hourly fees
  - Flat Rates

- Design Patents
  - No maintenance fees
  - ~2,000-$3,000

Cost varies based on amount of prosecution.
~$5,000-$25,000
Provisional Patent Application

• A low-cost way to establish an early effective filing date (priority date) in a non-provisional patent application with fewer formalities
  – Specification & Drawings
  – No claims required
• 12 month window to file a corresponding utility patent application in order to benefit from the priority date of the provisional application
  • Caution – will lose priority date for any new matter filed in the utility application
• Provisional application is abandoned automatically at 12 months and is not examined
Patent Infringement in the U.S.

Occurs when –
Without authorization of patent owner:
– Making or using the invention
– Offer to sell or sells within the U.S.
– Import the invention into the U.S.
– Actively induce infringement by another
Enforcement Considerations

• Enforceability of patents
  – Effectiveness of enforcement laws and procedures in the country/region of interest
    • Some countries allow recordation of patent with customs

• Enforcement requires patent owner action

• Competitor products should be monitored
  – In stores
  – At trade shows

• Licensing may be beneficial
  – Limit as to time, geographical area, or field of use
Trade Secret Law

• Protects a **commercially valuable proprietary information**
• Valuable business information that gives a **competitive advantage**
• Trade Secrets are not generally known and must be subject to reasonable efforts to preserve confidentiality
• Examples
  – Formulas (e.g. Coca-Cola®)
  – Manufacturing processes
  – Business strategies
  – Business management information
  – Customer lists
  – Design concepts
## Trade Secret vs. Patent

<table>
<thead>
<tr>
<th>Trade Secret</th>
<th>Patent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indefinite</td>
<td>20 year term</td>
</tr>
<tr>
<td>Not registered or disclosed</td>
<td>Public disclosure</td>
</tr>
<tr>
<td>Can be separately discovered</td>
<td>Right to exclude others</td>
</tr>
<tr>
<td>Remedy only if the secret is illegally appropriated</td>
<td>Remedy for infringement</td>
</tr>
</tbody>
</table>
Common Ways to Lose a Trade Secret

• Owner or owner-authorized disclosure

• Reverse engineering

• Independent development

• Failure to take adequate steps to prevent disclosure
www.Espacenet.com

- European Patent Office
- Worldwide search
- 80+ countries
- WIPO search for PCT applications
Resources

• [http://www.uspto.gov/inventors/index.jsp](http://www.uspto.gov/inventors/index.jsp)  
  – Inventors Resources on PTO Internet site
  – Searching US patents
• [http://www.uspto.gov/patents/init_events/pct/index.jsp](http://www.uspto.gov/patents/init_events/pct/index.jsp)  
  – PCT Legal Web site
  – Protecting Intellectual Property Rights
• [http://www.ustr.gov/trade-topics/intellectual-property](http://www.ustr.gov/trade-topics/intellectual-property)  
  – Office of US Trade Representative
• [http://www.wipo.int](http://www.wipo.int)  
  – World Intellectual Property Organization
  – European patent database
• [http://www.ipdl.ncipi.go.jp/homepg_e.ipdl](http://www.ipdl.ncipi.go.jp/homepg_e.ipdl)  
  – Japanese patent database
THANK YOU

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