INTELLECTUAL PROPERTY

Intellectual property (IP) can no longer be viewed as an isolated island of exclusivity in a business sea. A knowledge of the nature of patents, copyrights, trademarks, and trade secrets and know how is essential for maximizing the financial benefits that are derived from a given technology.
IP

- Patents
- Copyrights
- Trademarks
- Trade secrets, know-how

PATENTS
CONGRESSIONAL AUTHORITY

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 respective writings and discoveries.

U.S. Constitution, Article I, Section 8, Clause 8 (1789)

TYPES OF PATENTS

- UTILITY
- DESIGN
- PLANT
UTILITY PATENTS

What is patentable?
- New and useful......
  - Processes (methods)
  - Machines
  - Articles of manufacture
  - Compositions
  - New uses of one of above

What is unpatentable?
- Existing technology
- Scientific principles (laws of nature)
- Naturally occurring phenomena
DESIGN PATENTS

- WHAT IS PATENTABLE?
  - New, original, nonobvious ornamental designs for articles of manufacture
- WHAT IS UNPATENTABLE?
  - Unornamented functional features

PLANT PATENTS

- Asexually reproduced, distinct and new varieties of plants, including cultivated spores, mutants, hybrids, and newly found seedlings, other than tuber propagated plants or plants found in an uncultivated state.
CRITERIA FOR PATENTABILITY

- Novel
- Unobvious (nonobvious)
- Useful

NOVELTY

- First to invent (US)
- Conception - the conceiving of the idea of the invention.
- Reduction to Practice - the construction or testing of the invention (actual) or the filing of a patent application (constructive).
PRIOR ART

- Existing “relevant” technology – state of knowledge existing or publicly available
- Can be your own technology or acts

STATUTORY BARS

- You will lose your patent rights to an invention if you:
  - Publicly use the invention
  - Sell or offer to sell the invention
  - Publish the invention in a printed publication or a patent

Before the filing of an application
(more than one year in U.S.)
FOREIGN STANDARDS
FOR PRIOR ART

“Absolutely novelty” - The invention must not have been disclosed or available to the public at any time before the filing of the application.

UNOBSVIOUSNESS

- A patent may not be obtained 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 the subject matter pertains.
The obviousness standard prevents the patenting of relatively insignificant differences between the invention and the prior art.

Prior art can be combined in an obviousness determination, that is, more than one reference can be cited by the examiner as showing different features of the invention which, taken together, render the invention obvious.
UNOBLVIOUSNESS (cont’d)

- Obviousness is inherently a subjective determination, as the examiner cannot be, or know the mind of, the hypothetical “one skilled in the art.”

UTILITY

- The invention must satisfy the “useful” requirement of the patent laws. The patent system was created as a reward for inventive contributions to society, not for merely interesting ideas.
A patent search is a search of public patent records of at least the U. S. Patent Office for disclosures pertinent to the patentability of the invention.

The search can be conducted in Washington in the search room of the U. S. Patent Office, or by means of electronic databases (such as the patent database available at www.uspto.gov or http://ec.espacenet.com/espacenet).

A thorough search also should include non-patent references such as journals and other publications (including those available on the Internet).

A patent search is not an infringement search.
**THE DISCLOSURE PROCESS**

- A good disclosure is a key component of the patent protection process.
- Good disclosures are fostered by good records.

**THE DISCLOSURE PROCESS**

- The disclosure should be as complete as possible.
  - Description of the invention.
  - Drawings or diagrams.
  - Date of the invention.
  - Description of the prior art.
THE DISCLOSURE PROCESS (cont’d)

- The disclosure should be as complete as possible.
  - Improvement over the prior art.
  - Public disclosures of the invention, if any, and dates.
  - Identification of all inventors.

THE FILING DECISION

- Considerations:
  - The prior art and the possible scope of patent protection (versus maintaining the invention as a trade secret).
  - Consider the possibility of foreign protection in the decision.
  - Consider ownership/inventorship problems.
  - Consider the potential market and return on the invention investment.
THE PATENT APPLICATION

- SPECIFICATION
- CLAIMS
- DRAWINGS

SPECIFICATION

- A written description of the invention in clear and concise terms.
- Must be enabling, that is, describe the invention in such a way as to permit one skilled in the art to make and use the invention.
- Must disclose the best mode of making and using the invention. There can be no material “secrets” kept from a patent application.
SPECIFICATION (cont’d)

- Should also include reasonable alternatives to the preferred embodiments in order to avoid any inference that the invention is limited to the preferred embodiments.

CLAIMS

- Must “particularly point out” and “distinctly claim” the subject matter of the invention.
- Independent claim: A claim which does not reference any other claim.
- Dependent claim: A claim which references an independent claim or another dependent claim. Adds subject matter (limitations) to the preceding claim(s).
INVENTORSHIP

- In the United States, the patent application must be filed in the name of the inventor(s).

- Inventorship is purely a legal question, and is determined by an examination of who contributed creatively to what is being claimed. Inventorship cannot be dictated by politics, funding, ego, or even goodwill.

INVENTORSHIP (cont’d)

- An inventor can be anyone, and must be everyone, who contributes creatively to the conception or reduction to practice of the invention.

- Multiple inventors are referred to as JOINT INVENTORS.
“A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability.”

Usually, the information that is disclosed consists of patents or other printed references known to the inventors.

The duty to disclose is imposed not only on the inventors, but also on each individual associated with the filing and prosecution of the application. This includes attorneys and patent agents.
OFFICE ACTIONS AND RESPONSES BY THE APPLICANT

- Each patent application is classified upon receipt by the Patent Office and assigned to a Group Art Unit that is responsible for the relevant technology. The application is assigned within the Group Art Unit to a single patent examiner. It is not uncommon for several related applications to be examined by the same patent examiner.

OFFICE ACTIONS AND RESPONSES BY THE APPLICANT

- The examiner conducts a detailed review of the patent application for form and sufficiency, an independent search of the records of the Patent Office, and reviews the contents of Applicant’s Information Disclosure Statement. The examiner then prepares a written office action.
OFFICE ACTIONS

- The office action specifically states the points of rejection that are made by the examiner. In the case of form and sufficiency, the examiner should state clearly the parts of the application that are objected to, with page and line number citations. In many cases, the examiner will suggest changes to overcome the rejection.

OFFICE ACTIONS

- In the case of rejections on the basis of prior art, the prior art will be cited, copies of the references will be included, and the examiner will explain the relevance of each of the references.
RESPONSE TO OFFICE ACTIONS

- A response to an office action will be prepared by the patent attorney. The response must address each and every point raised by the examiner.

RESPONSE TO OFFICE ACTIONS

- The response may amend claims to “distinguish” the invention from the references. Arguments distinguishing the claimed invention from the references are also included. Affidavits from the inventors or other experts can also be helpful.
RESPONSE TO OFFICE ACTIONS

- Changes to the form of the application can be made, but not to the substance. In other words, no “new matter” can be added to an application in a response.

RESPONSE TO OFFICE ACTIONS

- Affidavits from experts in the technical field, or from inventors themselves, are sometimes included in the response to explain the technical points of the Applicant’s position.
RESPONSE TO OFFICE ACTIONS

- It may be helpful to conduct a telephonic or personal interview with the examiner to permit the free exchange of positions and ideas, and a cooperative effort to arrive at claims which are deemed patentable by the examiner and acceptable to the applicant.

A maximum of 6 months is permitted to file a response or the application will become abandoned.
The examiner will consider the Applicant’s response and either allow the application or issue another rejection. Unless this rejection is on new grounds that were not necessitated by the Applicant’s response, the examiner will make the rejection “final”.

A final rejection limits the response of the Applicant. New evidence supporting patentability, such as affidavits, will usually not be accepted at this point. Interviews may not be granted.
FINAL REJECTION (cont’d)

- Another six month period is allotted for a response to a final rejection. During this time, the Applicant must either gain the allowance of the application, file a continuing application, or appeal the examiner’s decision. Otherwise, the application becomes abandoned.

ISSUANCE

- Notice of Allowance
- Issue fees
- Term - 20 years from filing (Design patents 14 years from grant).
- Patent Term Restoration (maximum 5 years) for regulatory (FDA) delays.
ISSUANCE (cont’d)

- Maintenance Fees (3 1/2, 7 1/2 and 11 1/2 years) - these fees MUST be paid or the patent will expire and all patent rights will be lost.
- Marking - Products must, where possible, be marked with the patent number in order to permit the owner to recover damages from infringers.

APPEALS

- Board of Patent Appeals and Interferences
- Court of Appeals for the Federal Circuit
- Supreme Court of the United States (rarely)
PROVISIONAL APPLICATIONS

- Do not require claims
- Secure a filing date for a later-filed utility application if the disclosure of the provisional application is enabling for what is claimed later in a utility application
- Must be “converted” to a utility application within one year

FOREIGN FILING

- Patents are essentially national grants. A United States patent provides protection in the United States, but not in other countries.

- In order to obtain patent protection in other countries, the Applicant must file an application in each and every country where protection is desired.
FOREIGN FILING (cont’d)

- Exceptions to the above exist, most notably in Europe, where a single application can result in a patent in each member country of the European Patent Convention.

- The foreign filing process is very expensive, and care must be taken in making decisions not only as to the countries where the application should be filed, but also as to whether foreign filing is appropriate at all.

DEADLINE FOR FOREIGN FILING

- Foreign applications must be filed within one year of the original national filing date in order to gain the priority benefits of the International Convention.

- This treaty gives applicants from member states the priority benefit of the original national filing date in each of the other member countries in which the application is foreign-filed.
DEADLINE FOR FOREIGN FILING
(cont’d)

- This priority benefit is vital to preserve patent rights if there has been a public use or disclosure of the invention, or if prior art references appear, after the date of the original filing but before the date of the foreign filing.

FOREIGN FILING PROCEDURES

- Foreign filing is almost always handled by attorneys or patent agents in the country where the application is being filed.

- Translations of the application are usually required into the native or official language of the respective country. This also adds significantly to the expense.
FOREIGN FILING PROCEDURES (cont’d)

- Annual maintenance fees are required in many countries.

- Foreign patent prosecution proceeds much like U. S. prosecution, usually with examination and office actions, responses, etc.

PATENT COOPERATION TREATY (PCT) APPLICATIONS

- In order to postpone some of the expenses of foreign filing, a treaty has been entered into by most countries having patent systems.

- The Patent Cooperation Treaty is a multilateral treaty that was concluded in Washington in 1970 and entered into force in 1978. It is administered by the International Bureau of the World Intellectual Property Organization (WIPO), whose headquarters are in Geneva.
The PCT application provides a Chapter I search procedure, and a Chapter II preliminary examination procedure. These procedures are not binding, that is, they will have no conclusive effect on any foreign patent application.

The key benefit of a PCT application is to delay the date on which foreign applications must be filed. This is twenty months from the original filing, and thirty months if Chapter II is also elected.

<table>
<thead>
<tr>
<th>PCT BENEFITS</th>
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<tbody>
<tr>
<td><strong>Pros</strong></td>
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<tr>
<td>Postpone fees (filing and maintenance)</td>
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<tr>
<td>International search</td>
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<tr>
<td>Allows U. S. prosecution to proceed</td>
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<tr>
<td>Allows commercial evaluation</td>
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<tr>
<td>Selection of countries</td>
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<td>Last minute preservation of rights</td>
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<tr>
<td>Non-binding patentability opinion</td>
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<tr>
<td>English prosecution</td>
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<tr>
<td><strong>Cons</strong></td>
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<tr>
<td>Small additional expense</td>
</tr>
<tr>
<td>Delays prosecution</td>
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<tr>
<td>All eggs in one basket</td>
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<tr>
<td>Non-binding patentability opinion</td>
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PCT MEMBER COUNTRIES

Albania  Albania
Argentina  Argentina
Australia  Australia
Austria  Austria
Azerbaijan  Azerbaijan
Belarus  Belarus
Belgium  Belgium
Belize  Belize
Benin  Benin
Bosnia & Herzegovina  Bosnia & Herzegovina
Brazil  Brazil
Bulgaria  Bulgaria
Burkina Faso  Burkina Faso
Canada  Canada
Central African Repub  Central African Repub
Chad  Chad
China  China
Colombia  Colombia
Congo  Congo
Costa Rica  Costa Rica
Cote d'Ivoire  Cote d'Ivoire
Croatia  Croatia
Cuba  Cuba
Cypress  Cyprus
Czech Republic  Czech Republic
Democratic People's Repub of Korea  Democratic People's Repub of Korea
Denmark  Denmark
Dominica  Dominica
Ecuador  Ecuador
Equatorial Guinea  Equatorial Guinea
Estonia  Estonia
Finland  Finland
France  France
Gabon  Gabon
Gambia  Gambia
Georgia  Georgia
Germany  Germany
Ghana  Ghana
Greece  Greece
Grenada  Grenada
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Guinea-Bissau  Guinea-Bissau
Hungary  Hungary
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Indonesia  Indonesia
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Israel  Israel
Italy  Italy
Japan  Japan
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Portugal  Portugal
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Repub of Moldova  Repub of Moldova
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Russian Federation  Russian Federation
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Sierra Leone  Sierra Leone
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South Africa  South Africa
Spain  Spain
Sri Lanka  Sri Lanka
Sudan  Sudan
Swaziland  Swaziland
Sweden  Sweden
Switzerland  Switzerland
Tajikistan  Tajikistan
The former Yugoslav Repub  The former Yugoslav Repub
Togo  Togo
Trinidad and Tobago  Trinidad and Tobago
Tunisia  Tunisia
Turkey  Turkey
Turkmenistan  Turkmenistan
Uganda  Uganda
Ukraine  Ukraine
United Arab Emirates  United Arab Emirates
United Kingdom  United Kingdom
United Republic of Tanzania  United Republic of Tanzania
United States of America  United States of America
Uzbekistan  Uzbekistan
Viet Nam  Viet Nam
Yugoslavia  Yugoslavia
Zambia  Zambia
Zimbabwe  Zimbabwe
Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. Works of authorship include the following categories:
SUBJECT MATTER OF COPYRIGHTS

- literary works;
- musical works, including any accompanying words;
- dramatic works, including any accompanying music;
- pantomimes and choreographic works;
- pictorial, graphic, and sculptural works;
- motion pictures and other audiovisual works;
- sound recordings; and
- architectural works.

EXCLUSIONS FROM COPYRIGHT

- In no case does copyright protection for an original work of authorship extend to an idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.
- Ideas, as opposed to the creative expression of ideas, are not copyrightable.
EXCLUSIONS FROM COPYRIGHT

- Factual information, but creative presentations of factual information may be protectable.

- Short names and slogans are generally not the subject of copyright.

PROTECTION AFFORDED BY COPYRIGHT

- It is important to keep in mind that copyright protection prevents only unauthorized copying. Originality, even if after the creation of the copyrighted work, is a defense to a copyright infringement allegation.
COPYRIGHT OWNERSHIP

- Ownership vests in the creator(s), unless the work is a “work for hire” or has been assigned.
- A work for hire is created by an employer/employee relationship or where there is a work-for-hire agreement and is in one of certain defined classes of works.

COPYRIGHT OWNERSHIP

- The company should require contributors to execute work for hire/copyright assignment agreements where there is no employee/employer relationship, and preferably employment agreements where there is such a relationship.
COPYRIGHT OWNERSHIP (cont’d)

- Copyrights are susceptible to embedded ownership problems, which must be ruled out or eliminated before the owner’s proprietary position in the can be known. For example, software code may contain portions from pre-existing code owned by another. Programmers should be questioned to reveal any such issues.

COPYRIGHT OWNERSHIP (cont’d)

- A joint work is a work prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a work. Unless modified by agreement, each joint author has an undivided interest in the joint work, but must account to the other authors for a pro rata share of the proceeds.
COPYRIGHT OWNERSHIP (cont’d)

- Transfers of copyright must be in writing. Ownership or purchase of a material object embodying the copyrighted work is distinct from ownership or purchase of the underlying copyright.

COPYRIGHT REGISTRATION PROCEDURES

- Copyright registration procedures essentially require the filling out of a form and sending it, with at least one deposit copy of the work (two if the work has been published), to the Copyright Office.
COPYRIGHT REGISTRATION PROCEDURES

- Unlike a patent application, the copyright application is a fill-in-the-blanks form, and is much less expensive to have prepared. The Copyright Office maintains several different forms for different categories of works.

COPYRIGHT REGISTRATION PROCEDURES (cont’d)

- The registration process is also much more abbreviated than in patents, and a copyright registration is usually obtained within a few months of the mailing of the application.
Copyright registration is not mandatory, but it is a prerequisite to filing an infringement action and to obtaining statutory damages and attorney fees in litigation. The registration and deposit must be made before the infringement occurs, or within three months of the initial publication of the work for these remedies.

A copyright registration made within five years after the first publication of the work will constitute prima facie evidence of the validity of the copyright and of the facts stated in the certificate of registration.
TERM OF COPYRIGHT

- In the case of works for hire, 95 years from publication or 120 years from creation, whichever comes first.
  or
- Life of the author plus seventy years

COPYRIGHT NOTICE

- Copyright © - year of first publication and owner name
  (Copyright © 2003 Richard J. Melker)
- A copyright notice is not mandatory, but can help to defeat a claim to innocent, non-willful, infringement.
TRADEMARKS

TRADEMARK BASICS

- A word, phrase, symbol or design, or combination of words, phrases, symbols or designs, which identifies and distinguishes the source of the goods or services of one party from those of others.
Trademark rights are created by use of the trademark. No registration of any kind is necessary for an owner to establish enforceable trademark rights.

A “service mark” (ie restaurant name) is really the same as a trademark, except it identifies services. The terms are otherwise commonly referred to as “trademarks”.
THE OBJECTIVE

- The primary objective of trademark law is to prevent “consumer confusion” among purchasers of the relevant goods and/or services.

QUALITY CONTROL

- Since the public has come to associate the trademark with a certain quality of goods or services which bear at least some connection to the trademark owner, the trademark law has imposed on trademark owners a requirement that the owner maintain some control over the quality of the goods and/or services sold under the trademark. Failure to do so can result in a finding of abandonment and a loss of trademark rights.
QUALITY CONTROL (cont’d)

- Quality control requires that the trademark owner take appropriate steps to ascertain and control the quality of the goods and/or services that are being sold under the trademark. This can include inspecting of samples, controlling and approving advertising, or visiting licensees to inspect the quality of goods and/or services sold under the trademark.

TRADEMARK SEARCHING

- Federal - Register of the U. S. Patent and Trademark Office
- State - States have state trademark registration systems
- Common law - In use, but unregistered (e.g., Internet use)
No search is ever perfect, but a comprehensive search should encompass federal trademark applications and registrations, state registrations, and at least a selection of sources of common law marks. Common law sources include corporate registers, phone listings, trade publications, and, today, Internet domain names.

Searches are most often done today by private attorneys using computer databases, or by commercial search firms which also utilize computer databases.
TRADEMARK APPLICATIONS

- Federal trademark applications can be either “use” based or “intent-to-use”.
- Use-based applications require use of the trademark in interstate commerce, on the goods or on packaging for the goods, and/or in connection with the sale of services.
- Intent-to-use applications require an actual intent to use the trademark. Use of the trademark must begin before a registration will issue.

FILING AND PROSECUTION

- Trademark applications are filed at the Patent and Trademark Office.
- Applications are reviewed by examining attorneys.
- The examining attorney conducts a search of federal trademark applications and registrations for conflicting trademarks, and reviews the trademark and application for compliance with applicable statutes and rules.
If all goes well, the trademark is published for opposition. The thirty day opposition period gives the public the opportunity to object to the registration of the trademark.

Following the opposition period, the trademark is registered in the case of a use based application. In the case of an intent-to-use application, a Notice of Allowance is issued and the applicant has a period of six months, extendable with fees to thirty six months, within which to use the trademark and file a Statement of Use.
AFTER REGISTRATION

- Term of registration is ten years, renewable indefinitely.
- Affidavit of continued use must be filed by year six.
- Incontestability of certain aspects of the registration can be obtained after five years of uncontested use.

TRADEMARK NOTICE

- ® - Federal Registration
- TM - Trademark (no registration required)
- SM - service mark (no registration required)
FOREIGN FILING OF TRADEMARKS

- Like patents, largely a nation-by-nation filing is required.
- Not as expensive as patents, but foreign protection for trademarks can be expensive.
- A European Community system is in place.

TRADE SECRETS
AND KNOW HOW
DEFINITIONS

- **Know-How**: Specialized knowledge that can include data, formulas, patterns, compilations, programs, and the like that have value from not being generally known or from not being readily ascertainable. In some cases, know how is really “show how”.

DEFINITIONS

- **Trade Secrets**: Similar to know how, but has to be maintained as a secret. Requires that appropriate measures are undertaken to keep the knowledge secret.
MAINTENANCE OF TRADE SECRETS

- Keep trade secrets in restricted areas. Prevent unauthorized access to secret computer files.
- Restrict access to secret information to those who need to know.

MAINTENANCE OF TRADE SECRETS

- Prevent publications, seminars, or other disseminations of the information.
- Disclose only after appropriate confidentiality agreements have been entered into.
Technology development is moving faster than the legal systems that protect it. Only by understanding the different kinds of protection that are available, and by keeping abreast of changes in the laws governing this protection, can one use the legal system to full advantage to maximize a technology.