Protection of Intellectual Property

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Patents - Introduction

- A United States patent gives the owner of the invention the right to exclude others from using, selling, importing or producing the invention in the United States.

  Blackberry case: Illustrates the right of the U.S. patent holder to exclude the Canadian company, although the patent holder was not producing, selling or using the patented invention.

- Without a patent, the owner (patentee) cannot file a lawsuit for infringement in the U.S.

- A patent is important if a third party accuses the true owner of the invention of misappropriation or infringement.

Types of U.S. Patents

1. Utility patent
2. Design patent
3. Plant patent

Patentability Requirements for an Invention

- The invention must be a
  (1) machine;
  (2) composition of matter;
  (3) article of manufacture;
  (4) method or process.

- The invention must also be new, non–obvious, useful, and operable for its intended purpose.
  (1) Improvements to, and new combinations of, existing methods, devices, and compositions of matter are patentable.
  (2) Patentability is not equivalent to marketability.
  (3) Utility is more often an issue in pharmacological, biochemical, or other chemical inventions.
- An offer to sell or sale in the United States, public use or display in the United States, description in a printed publication, or filing for protection in a foreign country, triggers a one–year non-extendable filing period.

United States Utility Patent

A. Title page: inventor, patent number, date of issue, prior art citations, filing date, serial number, examiner, attorney of record
B. Abstract
C. Background of the Invention
D. Summary of the Invention
E. Brief Description of the Drawings
F. Detailed Description of the Invention
G. Claims
H. Drawings (depends upon invention)
I. Tables and Charts (optional)

Substantive Requirements of Utility Patent Applications

- The patent application, as originally filed, must technically support the claims (written description requirement).
- The patent application must enable a person skilled in that particular art to create and use the invention without undue experimentation.
- The patent application must disclose the best version (best mode) of the invention at the time the application is filed, including the
  (1) best manner for producing the invention; and
  (2) best manner of using the invention.
- Substantive information cannot be added to, or modified within, the application after filing (prohibition against new matter).
- However, claims can be modified.

Inventorship

- In the United States, inventorship is not equivalent to ownership of the Invention.

- Inventorship requires:

  (1) Conception
  - Defined as the definite and permanent idea of the complete and operative invention.
  - The original inventor is the natural person(s) who acquired or synthesized the knowledge to conceive the invention from his (their) own mental processes;

  and

  (2) Reduction to practice
  - actual (e.g.,creation of an operable prototype); or
  - constructive (filing of a substantively complete utility patent application).
  - a third person can reduce to practice under the inventor's direction.

Inventorship (cont.)

- In the United States, whoever is first to invent is entitled to the patent (and not necessarily the first to file the application).
- The application or subsequent patent must identify the true inventor(s), because otherwise the patent is invalid.

Inventorship (cont.)

- The true and first inventor is the one who:

  (1) was first to conceive; and

  (2) was diligent in reducing the invention to practice, by either

  (a) producing a working prototype; or

  (b) filing a patent application.

- Abandonment, concealment and suppression may preclude patent entitlement.

Inventorship (cont.)

- Joint inventorship (co-inventorship)

  (1) Each inventor owns an equal undivided interest in the invention, application and patent.

  (2) One joint inventor can personally use the patent without consulting the others.

  (3) The joint inventor can also transfer his right to use the patent to third parties without consulting with, or payment to, the remaining inventors.

Inventorship (cont.)

- Inventorship is a legal determination and not an agreement between parties.
- Correction of inventorship for an application or patent requires
  (1) due diligence; and
  (2) absence of deceptive intent.

Ownership of Inventions

- Employment

(1) An Illinois employment contract cannot effectively transfer ownership of an employee's inventions to the employer if

(a) the employer did not supply resources; and

(b) the invention was developed during the employee's own time unless

- the invention relates to (i) the employer's business, or (ii) the employer's research/development; or
- the invention results from work performed by the employee for the employer.

(2) Illinois shop right - the employer can use any invention, for which

(a) an employee has applied company resources to develop,

(b) in the employer's business without payment to the employee.

Ownership (cont.)

- *Equitable ownership* results whenever
  (1) an officer, director, shareholder, partner, etc.
  (2) uses his or her company's resources to develop and prosecute a patent;
  (3) and that patent is solely owned of record by that individual, and not the corporation or partnership.

Example: Two 50% shareholders of an Illinois corporation, one of whom is the individual inventor of record in the patent office.

Invention Ownership (cont.)

- While an inventor must be a natural person, an owner may be an organization.

  (1) Transfer of ownership can be by agreement of non-inventor entities.

  (2) In contrast, only the natural person(s) who conceived the invention can be the inventors.
- An assignment is the transfer of all, or an undivided share of, rights to the invention, application and/or patent.

  (1) small entity status and government fees.

  (2) an obligation to assign an invention, or rights thereto, may result in loss of small entity status.

Patent Duration and Publication

- For a utility patent:
  Twenty years from the filing date of the application.

- The application is available to the public approximately eighteen months after the filing date.
  (1) Request for Non-Publication
  (2) Withdrawal of Request for Non-Publication

- Maintenance fees for utility patents are payable to the patent office and are due
  (1) 3.5 years;
  (2) 11.5 years; and
  (3) 13.5 years after a patent issues,
  to prevent patent expiration.

Biotechnology Patents

- Biological and chemical patents generally

  A. For every variant of the invention there should be at least one working example with complete laboratory conditions and procedures.

  B. If the application claims variants which are not described in the application, the claims will be rejected unless the invention is predictable from

  (a) the prior art; and/or

  (b) other information in the application.

Biotechnology Patents (cont.)

• **Deposit of Biological Material-Biotechnology (genetic engineering and hybridomas)**

A. May be necessary for enablement, written description and best mode requirements

1. generally necessary for biological material which self-replicates

Examples

a. bacteria-directly self-replicating

b. viruses-indirectly self-replicating

2. other biological materials are deposited if required for

a. written description,

b. best mode, and/or

c. enablement.

Biotechnology Patents, cont.

B. No deposit is necessary if the biological material is

(i) known; AND

(ii) readily available to the public.

1. No deposit is necessary where the biological material is publicly available with

a. routine experimentation, and

b. a reliable screening test.

2. Other factors for known and readily available:

a. commercial availability

b. printed publications

c. predictable isolation techniques

Biotechnology Patents (cont.)

C. Term of deposit: a minimum of

1. thirty years; AND
2. five years after the most recent third party request.

D. Biological material within a U.S. patent commissioner's recognized depository is readily available even if there are access restrictions for

1. health and/or
2. safety.

Biotechnology Patents (cont.)

E. A complete identifying and specific reference to a biological material deposit

1. which is not present within the application upon filing

2. cannot be added

a. after filing

b. without risking the new matter prohibition.

Biotechnology Patents (cont.)

F. Timing for deposits

1. Original deposit

a. preferably before filing of the application; or

b. by law during pendency of the application, but

c. an original deposit after the filing date requires corroboration.

Biotechnology Patents (cont.)

2. Effect of failure to make a timely original deposit

a. A patent which requires an original post issuance deposit is fatally defective.

b. Failure to deposit prior to the U.S. application filing date may result in loss of the U.S. filing date in other countries for priority purposes.

Biotechnology Patents (cont.)

3. Replacement or supplement of an original deposit
   a. during pendancy of the application
      (1) specific identification, and
      (2) description within the application as filed

   b. After a patent has issued, a supplement or replacement deposit requires a certificate of correction.

4. Failure to replace the original deposit in a timely manner
   a. the patent is treated as if the original initial deposit was never made.

   b. exception: if biological material to be deposited is otherwise commercially available.

Biotechnology Patents (cont.)

5. Replacement deposit presumed identical to original deposit if the patent refers to the original deposit.

G. Access conditions

1. Actual access to deposit by patent office during pendency of application which refers to deposit

2. Removal of public access restrictions if patent matures.

Exception: the patent owner can require requests for deposited samples to be written after the patent matures.

H. Budapest Treaty

1. Depositories approved by World Intellectual Property Organization (WIPO)

2. Deposit within an approved WIPO depository must comply with United States term and access conditions.

Biotechnology Patents (cont.)

- United States Patent Office Regulations for Sequence Data (genetic engineering)

A. Applications require mandatory use of

1. standard symbols; and
2. standard format

for most amino acid and/or nucleotide sequence data.

Biotechnology Patents (cont.)

3. Regulations cover

a. all unbranched nucleotide sequences with ten or more bases; and

b. all unbranched amino acid sequences with four or more amino acids; and

c. at least four ‘specifically defined’ nucleotides or amino acids.

Biotechnology Patents (cont.)

4. All sequences under no. 3 supra are governed by regulations, even if they are only disclosed and not claimed.

5. WIPO

a. format requirements closely track those of U.S.

b. U.S. nucleotide and amino acid nomenclature incorporates WIPO symbols.

6. Patentin 3.1: recommended software for computer listing which must be submitted in computer-readable form.

Biotechnology Patents (cont.)

7. Scope of rules does not include sequences which contain at least one D-amino acid.

8. An amino acid sequence is not excluded from the rules due to the presence of a single non-peptide bond.

B. Sequence listings for nucleic acid and amino acid sequences

1. Refer to government Manual of Patent Examination Procedure for standard nomenclature of:

a. nucleotides

b. modified nucleotides

c. amino acids, and

d. modified and unusual amino acids.

Biotechnology Patents (cont.)

2. A sequence listing submission requires

a. a separate section in conventional application, designated as sequence listing, and beginning upon a separate page; and

b. a compact disc with

(1) a computer readable sequence listing; and

(2) a reference to the disc within the conventional application text.

3. sequence listings for both the application and compact discs include

a. spacing requirements,

b. numeric identifiers, and

c. information entries which each begin with a numeric identifier

Biotechnology Patents (cont.)

4. Not included in the sequence listing are features such as
   a. secondary,
   b. tertiary,and
   c. quaternary structure of proteins

   which are described in the conventional application text and drawing figures.

5. Sequence listings need not include
   a. depiction of coding regions or amino acids which
   b. correspond to codons
   c. within the coding regions of the particular sequence.

Biotechnology Patents (cont.)

6. Hybrid and gapped sequences

a. a hybrid sequence is presented as a separate sequence within a listing

b. gaps which represent unknown or undisclosed regions in a sequence between regions which are known or disclosed:

(1) may be designated within the specification, claims or drawings as “residues x through y of Seq. Id. No: z” if

(2) the contiguous fragment of this same sequence already appears within the sequence listing.

Biotechnology Patents (cont.)

7. Double stranded nucleotide sequences

a. only depicted as such in application drawings, and not in the sequence listing

b. in the sequence listing: single strand nucleotide sequences are represented by a single strand in the 5' to 3' direction, from left to right within the actual sequence listing. However,

(1) a double stranded nucleotide

(a) may be represented in the listing as

(b) two single stranded nucleotides, and

(2) any relationship between the two sequences is designated within the conventional application drawings.

Biotechnology patents (cont.)

C. Claiming large numbers of nucleotide sequences.

1. Nucleotide sequences which code the same protein are not considered independent and distinct,

but

2. Nucleotide sequences encoding different proteins are generally presumed to be

a. structurally distinct chemical compounds; and

b. patentably distinct inventions.

Biotechnology Patents (cont.)

3. Exceptions for sequence listing:

a. an application can claim

(1) a maximum of 10 independent and distinct nucleotide sequences in a single application, plus

(2) patentably indistinct variants of each nucleotide sequence

(3) unless the claimed material is unusually complex.

b. for variants of a particular long sequence

(1) indicate substitutions at particular nucleotide or amino acid sites,

(2) instead of reciting the complete sequence.

Trade Secrets

- Under Illinois law, a trade secret is information which
  (1) is sufficiently confidential to provide economic value to the owner, and
  (2) from which other persons could obtain economic value from its disclosure; and
  (3) is the subject of reasonable efforts to maintain its secrecy.
- Novelty is not required.

Trade Secrets (cont.)

- Information can qualify for trade secret status unless it is

(1) already generally known in the trade; or

(2) readily accessible from a public or well-known source in the trade.

- A trade secret disclosed in a published patent application, patent or copyright registration loses its trade secret status.

Trade Secrets (cont.)

- Ownership of Trade Secrets

  (1) An employer has property rights to trade secrets of his business.

  (2) Many courts apply the ownership rules for patentable inventions to ownership decisions of trade secrets (whether or not the trade secret also qualifies for copyright registration or a patent(s)).

- Trade secret misappropriation is the basis for monetary recovery and injunctions (and perhaps criminal penalties).

- Without trade secret status, there is no legal remedy except by

  (1) contract; and

  (2) patent/copyright protection if legal requirements exist.

- Trade secret duration is potentially indefinite and depends upon measures to preserve confidentiality.

Trade Secrets (cont.)

- The Illinois Trade Secret Act covers both actual and threatened misappropriations.
- Confidentiality, non-compete and non – disclosure agreements are necessary for

  (1) protection of confidential information and know-how which do not qualify for trade secret status, patent protection or copyright protection, and

  (2) as evidence of efforts to maintain confidentiality.

Copyright

- Copyright law protects “original works of authorship fixed in any tangible medium of expression.”

and

- Includes
  a. Literary works
  b. Musical works (and accompanying words)
  c. Dramatic works
  d. Pictorial, graphic and sculptural works
  e. Audiovisual works
  f. Sound recordings
  g. Architectural works, and
  h. Computer programs.

Copyright (cont.)

- Copyright does not protect ideas, processes or concepts which are not in tangible form.
- Complete copyright ownership in the United States includes the right to:
  a. reproduce the work;
  b. distribute the work;
  c. perform the work publicly;
  d. display the work publicly;
  e. prepare derivative works; and
  f. for sound recordings, perform publicly by means of digital audio transmission.

Copyright Ownership and Authorship

- In the United States, notice, publication or registration are no longer required for copyright ownership.

  (1) Generally the actual creator of the work is the author as well as the initial owner of all copyright to the work.

  (2) However, ownership of copyright is not equivalent to authorship.

- Works for Hire: exceptions to authorship/ownership rule

  (1) By law, employers are the authors and owners of all copyright in works created by employees within the scope of their employment.

Copyright Authorship and Ownership (cont.)

(2) However, copyright authorship and ownership in certain commissioned works belongs to a commissioning party only if

(i) the commissioned party and commissioning party expressly agree

(ii) in a signed written agreement that

(iii) the work is made for hire.

Copyright Authorship and Ownership (cont.)

(a) The necessity for a written agreement depends in large part upon whether the party creating the commissioned work is an independent contractor.

(b) The most important requirement for independent contractor status is

(i) no control by the commissioning party over

(ii) the manner in which the work is performed.

Copyright Authorship and Ownership (cont.)

- A transfer of exclusive copyright ownership is effective only by written agreement or operation of law.
- Copyright ownership can be transferred in part, such as the right to distribute and produce a book.
- Ownership of a tangible item does not automatically convey copyright ownership in that item.
  - Example: photograph

Duration of Copyright

(1) For works created on and after January 1, 1978: Natural life of author plus 70 years.

(2) For works created before January 1, 1978: A first term of 28 years from
(a) first date of publication; or
(b) date of registration of unpublished work,
and
(c) with a potential renewal of
- sixty-seven years, and
- with maximum total protection of 95 years
which includes automatic renewals.

(3) Works for hire: 95 years from publication or 120 years from creation, whichever is shorter.

(4) Works created prior to January 1, 1978, but not published or registered by that date:
(a) Natural life of author plus 70 years; or
(b) 95 years from publication or 120 years from creation, whichever is shorter.

Copyright (cont.)

- Fair Use

  (1) For non-commercial purposes.

  (2) Permissions, consents, releases and acknowledgements.

- Derivative Works

  (1) A derivative work is based upon an existing work, but it also contains its own new authorship components.

  (2) The new authorship components are entitled to their own copyright registration if these components are sufficiently original and creative.

Trademarks and Service marks

I. Introduction

- Common Law
- State Registers
- Federal Register
- TM, SM, and ®

Trademarks and Service marks (cont.)

- All trademark and service mark rights in the United States initially arise by use and must be

  a. continuously used in (i) a commercially acceptable volume; and (ii) manner to remain enforceable.

  b. this is true whether or not the mark is registered with state or the federal government.

A. Trademarks: any word(s), symbol or other designation which identifies the source of goods and distinguishes these goods from the goods of competitors

- Trademarks can also be combinations of words, designs and symbols.
- Examples:
  a. TIDE® (laundry detergent)
  b. LOS ANGELES TIMES® (newspapers)
  c. MINT MASTERS® (medallions)
  d. MUDDLES® (candy)
  e. GAYETY'S® (candy and ice cream)
  f. VISIBILY EVEN ™ (makeup)

Trademarks and Service marks, (cont.)

B. Service marks

1. Any word(s), symbol or other designation which distinguishes a service from the services of competitors.

2. Service marks can also be combinations of words, symbols and designs.

Examples:

- AT&T® (telephone services)
- MIDAS® (muffler repair)
- HEALTH MATTERS plus design ® (physical therapy services)

C. Other kinds of marks

- Collective mark: adopted by a group for use only by its members to identify goods or services.
- Collective membership mark: only indicates that the user of the mark is a member of a particular organization.

Trademarks and Service marks

- Certification marks

1. indicates to consumers that goods or services possess certain characteristic, qualifications or standards, so
2. the same mark appears on goods or services of many different sources.

- Trade name

1. the name of a business
2. may also function as a trademark or service mark

- Trade dress

1. design, packaging, color for goods or services
2. which also qualify as trademarks or service marks.

Trademarks, Service marks, cont.)

III. Adopting a trademark or service mark

A. Steps

1. select a potential mark
2. search to determine if

a. the same or similar mark is already used by a third party for the same or similar goods or services,

b. so there is no likelihood of confusion among consumers.

Trademarks and Service marks, (cont.)

- Similar marks
  1. associated with similar goods and services may cause a substantial likelihood of confusing similarity,
  2. marks need not be identical for this likelihood to exist.
- Decide whether to use the mark with or without state or federal registration
- Knock out searches: uspto.gov website and google.
- Professional searches:
  1. federal, state, common law and domain names with
  2. similar as well as identical names products and services.
- 100 % clearance of a mark is unobtainable
- Dilution issues example: KODAK for bicycles

Trademarks and Service marks (cont.)

C. Mark selection 'sliding scale'

1. Fanciful marks are the strongest
   a. Require (1) the least amount of use in commerce to establish rights to the mark; and (2) are inherently distinctive.

      Examples:

      KODAK® (cameras)

      XEROX® (photocopy machines)

   b. fanciful marks comprise designs or new words which did not previously exist.
   c. fanciful and arbitrary marks, below, receive the greatest protection, but they do not readily convey the nature of the product so they require more advertising.

Trademarks and Service marks (cont.)

2. Arbitrary marks
   a. comprise words which already exist but which have no descriptive relationship to the products or services they represent.
   b. Arbitrary marks are inherently distinctive.

   Examples:

   APPLE®

   SATURN® (cars)

   MUDDLES® (turtle shaped chocolate and caramel candy)

Trademarks and Service marks (cont.)

3. Suggestive marks

   a. imply qualities of the products or services they represent and are inherently distinctive.

Examples:

MINT MASTERS® (medallions)

SOFT AND DRY® (deodorant)

HEALTH MATTERS plus design® (physical therapy services)

DIEHARD ® (for batteries)

Trademarks and Service marks, (cont.)

4. Descriptive marks
   a. are not inherently distinctive because they directly describe a characteristic or function of the product or service.
   b. require secondary meaning to obtain federal register status.
   c. weakest category of marks and require the most use to obtain federal register status

      Examples: SOLAR GLO® (for sunlit signs)

      HONEYBAKED (hams)
   c. descriptive marks more readily convey the nature of the product but they are less protective.
   d. the primary significance to the consumers is identification of the mark with a single source.
   e. laudatory terms, proper names and geographic designations are descriptive

Trademarks and Service marks (cont.)

f. factors which establish secondary meaning
   1) length and manner of use;
   2) manner and extent of advertising and promotion
   3) sales volume
   4) direct evidence such as consumer testimony and consumer surveys
   5) actual confusion
   6) intentional copying

g. five years of exclusive use of a descriptive term as a mark is generally sufficient evidence of secondary meaning

Trademarks and Service marks (cont.)

5. Generic terms have no protection under any circumstances

   Examples:

   “Chair” for chairs;

   “Magazine” for selling magazines

   “SCREEN WIPE” for computer screen wipes

IV. Trademark and Service mark Use

- Proper use depends in part upon
  1. location of mark on goods and services,
  2. proper business volume,
  3. continuity of use, and
  4. use outside a business locality.

Trademarks and Service marks (cont.)
Mark Registration

- State registration --some procedural advantages in litigation
- Federal registration advantages
  1. federal court forum
  2. incontestable
  3. constructive filing date
  4. enhanced litigation damages
  5. constructive notice of ownership
  6. U.S. Customs deposit
  7. Domain name disputes

Trademarks and Service marks (cont.)

- Loss of trademark and service mark rights occurs whenever
  1. mark no longer identifies the source; and
  2. no longer informs consumers that products/services originate from a single source.
  3. factors to consider
     a. failure to use the mark over a substantial period of time
     b. three years of non-use raises a presumption of abandonment
     c. mark improperly assigned without goodwill
     d. mark improperly licensed without quality control
     e. mark becomes generic

  Examples: aspirin, cellophane, escalator, linoleum, shredded wheat.

Trademarks and Service marks (cont.)

- Prevention of mark ownership loss

1. avoid using as a noun, possessive or verb, and just use as an adjective.
2. avoid employee misuse,
3. advertise proper use, display mark in different fonts and colors,
4. use explanatory footnotes with the public.
5. use TM, SM and ® whenever appropriate.

Note: ® cannot be used unless the mark is on the federal register.

6. use a product designation noun with the trademark or service mark

Example: “ASPIRIN pain reliever” not “Bayer aspirin.”

7. use the mark on more than one product

Example: BAND-AID brand ointments, antiseptic washes, sprays, etc.

8. a patented product should have a brand name and an easy to use generic term

Example: NUTRASWEET sweetener

9. object to misuse by others.

Trademarks and Service marks (cont.)

- Trade dress is the total look or image of a product, packaging, service establishment, etc.
  1. It may include features such as size, shape, color, texture or graphics.
  2. Trade dress can be federally registered as a trademark.
  3. Packaging can be inherently distinctive but product design must have secondary meaning.

Trademarks and Service marks (cont.)

- Domain names
  1. can be trademarks or service marks,
  2. status depends upon how they are used on the internet.
  3. Examples
     a. Kraft Foods:

velveetta.com
cheezwhiz.com
shakenbake.com

     b. Proctor and Gamble:

Luvs.com
Pertplus.com
Spicnspan.com

Trademarks and Service marks, cont.

- Dilution --- currently a remedy is limited to identical marks.
- Anti-cybersquatting consumer protection act.
- UDRP policy for on-line resolution of domain name disputes.

Trademarks and Service marks (cont.)

A. Trademark and Service valuation

Reasons for trademark and service mark valuation

1. damage related controversies
2. tax planning and compliance
3. financing securitization and collateralization
4. management information planning
5. bankruptcy and reorganization analysis

Trademarks and Service marks, (cont.)

B. Contexts for mark valuation include
   1. Fair market value
   2. Investment value
   3. Liquidation value
   4. Fair value
   5. Intrinsic value, etc.