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Intellectual Property Protection: A Corporate Guide To The Process

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for
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About the Guide

The inventions of employees have helped to build and maintain Corporations as industry leaders. The patents on these inventions protect many of the Corporation's valuable products and provide revenue from licenses on patented inventions and products. As Corporations continue to expand into many countries, worldwide patents are becoming increasingly important. The purpose of this guide is to explain, enhance, and expand you Corporation's patent program and patent application process. Although it will be on U.S. patent law and procedures, patents in other countries are discussed as much as possible.

WHO SHOULD READ THIS GUIDE?

This guide is written for employees of Corporations who need information about patents and the patent application program. The guide will be of particular interest to the following individuals and/or groups:

- Engineers, developers, researchers, and other employees who create patentable inventions during the course of their employment, or who need to know about patents and the patent application program
- Patent engineers, patent attorneys, and patent agents who provide assistance and advice to the inventors, and who prepare the application and guide it through the legal process
- Intellectual Property Protection Committee members and Technology Managers whose employees create patentable matter

WHAT IS IN THIS GUIDE?

There are many general interest and specialized books on patents for individuals who want to learn more about the patent application process. This guide explains the patent application process as it applies to any Corporation. The guide contains the following chapters:

Chapter 1. Defines and describes the several types of intellectual property protection

Chapter 2. Explains why patents are important to Corporations and to you

Chapter 3. Provides some guidelines for recognizing what can be patentable and some of the reasons behind a Corporation's patent program

Chapter 4. Explains how to begin the patent application process and the filling out the Invention Disclosure Form

Chapter 5. Describes a Corporate review process of the Invention Disclosure Form and how a patent application is prepared for filing with the U.S. Patent and Trademark Office

Chapter 6. Discusses some of the issues to be considered before filing for a patent in countries other than the United States

Chapter 7. Describes a typical Corporate Patent Award System

Chapter 8. Shows copies of typical forms used in the patent application process

Appendix A. Defines many of the legal and intellectual property protection terms used in this guide

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2 August 1995

Hi Tom;

I am enclosing the work I started at Franklin Pierce Law Center to complete my MIP degree requirements. Part of the work was done while I was at Digital. I left Digital in 1992 but continued working on the document. The content and approach of the document have changed significantly from the one I turned into you back in October 1991. I took your suggestions, like take the Maslow motivation and personality aspect out of the document, and created a document more practical yet one that include a section on "patent incentive award programs". This is now chapter 7 in the enclosed document. I also took Christopher Blanks' suggestions and conducted more research for the paper. This is included in the document as well. I am sending copies of the document to both Christopher and Bill Hennessey.

Tom, I hope that the document is of your liking. I am certainly very proud of the way it came out. In fact, I am using the data and information in my new venture. Since I left Digital, John Mesaros, Charlie Barbas and I established a partnership to provide Patent Law and Engineering Services. We have offices in Massachusetts and in California. The services that we are providing are patent prosecution, technology licensing, seminars on intellectual property protection (mainly to engineering students), and a little bit of international intellectual property protection (we are looking at NAFTA's impact on technology transfer in countries like Mexico, Central and South America). Because we are looking at technology transfer and intellectual property protection in Latin America, we have called the business "Torres Torres and Associates/Patent Law and Engineering Services". It is small now but we hope to generate some good business soon. In fact, I just returned from a series of conversations and negotiations with the University of Puerto Rico Engineering School and the Interamerican University Law School in Puerto Rico and we will be

providing services to them. They are interested on technology licensing and education on intellectual property protection for their students. We hope to negotiate and sign a service contract with them soon.

I will call you in a couple of days and perhaps schedule some time to visit you. In the mean time, please review the enclosed document and advice me of any suggestions and/or changes.

Regards;

HECTOR

Hector

cc: Prof. Bill Hennessey
Prof. Christopher Blank

Chapter 1

What is Intellectual Property?

Intellectual property refers to any product of the human intellect, such as ideas, inventions, expression, unique name, business method, industrial design, or chemical formula, that has some value in the marketplace. This chapter describes the several types of intellectual property protection including patents, trademarks, trade secrets, copyrights, and mask works.

Patents A patent is a grant by a government to an inventor. In return for making an invention known to the public, the patent gives the inventor the right to exclude others from making, using, or selling the subject matter of the patent. After the stated period of time has elapsed, the public is free to make, use, and sell the subject matter of the patent. Patents are enforceable only within the country or countries that grant them. For example, a U.S. patent is enforceable only within the United States and its territories. Almost all countries have patent laws. In the United States, patents are granted by the U.S. Patent and Trademark Office of the Department of Commerce. Some countries use the term "certificate of invention."

Trademarks A trademark is a word, symbol, device, shape, slogan, or combination of any of these used by manufacturers to indicate the source of goods or services. For example, some Corporation's logo and other trademarks inform the customer that the product or service was manufactured or provided by that Corporation and not by someone else.

In the United States, rights in trademarks are obtained by using the mark and optionally registering it with the U.S. Patent and Trademark Office. A trademark clearance search before the adoption of a trademark ensures that the new trademark does not infringe on an existing one.

Trade Secrets A trade secret is confidential information, such as a formula, pattern, or device used in business, that gives the user an opportunity to obtain an advantage over competitors who do not know or use the secret. A trade secret must be kept "secret." It can be lost by disclosure to others. When business needs are compelling and the outside party signs a nondisclosure agreement, the Corporation may disclose trade secret information to outside parties.

Copyrights A copyright gives the holder certain rights to exclude others from copying, distributing, or publicly displaying a creative work. Creative works that can be protected include writings, such as this guide, work of art, photographs, compilations of information, software, and others.

Mask Works Mask works used in the manufacturing of semiconductors chips are protected from substantial duplication by mask work rights. In addition, the microcode contained in the chip can be protected under copyright law.

Chapter 2

Why are Patents important to a Corporation?

Patents help a Corporation's valuable products, technology, and know-how. This chapter describes the fundamental of patents as they apply to a Corporation, and why patents are important to a Corporation and to you.

Why does a Corporation need Patents?

Patents help a Corporation produce revenue. Here are some benefits of a strong patent program to any Corporation.

- To protect the Corporation's proprietary advantage in the marketplace by excluding others from benefiting from inventions resulting from research and development
- To prevent others from obtaining later patents on similar inventions
- To develop revenue through licensing programs and royalties
- To strengthen a Corporation's negotiating position in closing third party agreements
- To provide for effective cross-licensing exchange

- To promote the recognition of a Corporation as a technology leader in the marketplace

Why are Patents important to you?

Patents also benefit employee-inventors. Here are some reasons why patents are important to you:

- To enhance professional recognition and career development
- To strengthen creativity and freedom to design
- To benefit from any established Corporate Patent Incentive Award System

What is a Corporate Intellectual Property Protection Committee?

A Corporate Intellectual Property Protection Committee is usually composed of a group of individuals that oversees and sets procedures concerning patents and other intellectual property. It is designed to strengthen and expand a Corporation's patent application process by helping to establish policies and strategies for protecting all intellectual property of the corporation.

These policies are normally implemented at the unit business level to fit the individual needs of each unit.

Chapter 3

How do I know if It's Patentable?

Are you an inventor? This chapter provides you with some guidelines to help make that decision by discussing what is considered patentable from the point of view of both the law and your Corporation.

What is considered Patentable?

It is sometimes difficult for employees to identify a potential invention that they may develop during day-to-day work. First, ask yourself if you have developed a new mechanism, article, or method. If nothing like your work already exists, ask yourself the following questions:

- Is this something that would not be obvious to a person with training or skill in the subject matter?
- Does the mechanism, article, or method provide improvements over that which is being replaced?
- Does the mechanism or method work faster, better, with less parts, or with fewer steps?
- Is it cheaper, easier to use or do, or easier to make or maintain?

- **Is throughput increased through a program, machine, or mechanism?**
- **Is a new substance created by the method?**
- **Does the method use less steps to achieve the same results?**
- **Does the method use different steps to create a new product?**

If you can answer "Yes!" to any of these or similar questions, you may have a potential patentable invention.

The Constitution of the United States gives Congress the power to grant to inventors certain exclusive rights to their inventions. These rights take the form of patents granted by the U.S. Patent and Trademark Office in Washington, DC.

To be patentable, an invention must be one of the kinds of things that the patent statute permits to be patented. The new invention must relate to new processes, machines, manufactures, compositions of matter or plants, or designs. Other countries have similar laws.

Deciding whether or not to pursue a patent is not always easy. It depends on the complex interplay of business, technology and legal issues.

Chapter 3-2

Does the Patent make business sense for the Corporation?

Your invention must fill the needs of the business for your Corporation to apply for a patent. The cost involved in obtaining a patent are considerable. An alternative type of protection, such as trade secret or copyright, may make more sense from a business point of view.

For example, it is sometimes better for the Corporation to copyright a software program rather than patent it, even though the patent offers more protection that the copyright. The copyright has minimal costs and is effective immediately. The typical patent cost several thousand dollars, takes two or more years after the application is filed until the patent is granted, and can incur additional costs if the patent is challenged or has to be defended because of infringements.

Does the Patent make technological sense for the Corporation?

Technology considerations are closely aligned with business considerations. The invention must fit into the technological needs of the Corporation and industry or protect the Corporation's assets from competitive activity.

A Corporation is more likely to file for patents on inventions actually incorporated into its products. The patent may range from protecting a single feature in the product, to the architecture. The Corporation may file for patent on other inventions if the field of technology is important or strategic to the Corporation, or if there is a strong potential for licensing revenue.

Does the invention meet the legal requirements?

The invention must meet the legal criteria for granting a patent. The U.S. patent statute has three principal requirements that must be met. An invention must be new, useful, and nonobvious.

Is it New?

New means that the invention must have novelty. Your invention will be compared with everything that has been done before your work. This is known as prior art. Your invention must be different in some way from what is shown to exist in any one piece of prior art.

Your invention does not have novelty and will not be granted a patent if the public has knowledge of your invention. In the United States an invention is not novel if, before the date of the invention by the inventors, the invention was known or used by others in the United States, or was patented or described in a printed publication anywhere in the world.

In addition, in the United States the invention is not novel if, more than 12 months before the filing of a patent application, the invention has been;

1. **Patented or described in a printed publication anywhere in the world (even by the inventors)**

2. Placed in public use or offered for sale by the inventors

In some countries, any public description, use, or sale before filing can be bar to obtaining a patent. Other countries allow an inventor 12 months in which to file in that country after a first filing in any other country.

Your invention may not be novel if it is described in another individual's patent application, even if the patent has been granted and you have no way of knowing about this pending patent.

Is it Useful?

Useful means that the invention must have some utility. It must achieve some desired objectives, even if it is amusement, such as a child's toy.

If the patent is for a device, you must show that the device is "reducible to practice." This means that it must be operable or can be shown to be operable. Simulation may be adequate. Perpetual motion machines cannot be reduced to practice and are not patentable. New chemical compounds are frequently developed by pharmaceutical companies, but patents cannot be granted on them unless the compound can be shown to be producible and to have some use.

Is it Nonobvious?

Nonobviousness is perhaps the most difficult concept of patent law to define and understand. In legal terms, the invention is not patentable if the subject matter of the invention, taken as a whole at the time the invention was made, would have been obvious to an individual of "ordinary skill in the art."

This means that an invention is not patentable simply because it is new. In addition to newness, the invention must be different. It must be different enough so that the invention would not have been obvious to an individual of ordinary skill familiar with the subject matter of the invention. This is not a hindsight test. The invention must have been obvious from the prior art, without the further teaching and knowledge of the inventor's work.

The inventive skills must be more than the normal, routine skills of an individual who is familiar with the inventor's field, whether or not the inventor has formal training in the field.

In some cases an invention may be patentable even if it seems like a simple change or addition. This can occur when a problem with the prior art is not obvious. The discovery of the solution forms the basis for a patentable invention, even if the solution is obvious once the nature of the problem is discovered and understood.

The invention is more apt to be nonobvious if others have worked on the same or substantially the same problem without success. This is particularly true if the successful inventor used an approach that was tried and rejected by others, or if the prior art suggested that this was a nonworkable solution.

If your invention is new, you should not worry about nonobviousness. But you should be prepared to point out how your invention is new, what advantages are gained over what has been done before, and why the prior art did not suggest doing what you did.

What are the different classifications of Patents?

U.S. patents are classified in one of several categories identified by law. Other countries have similar classification categories. Not all of them are of equal importance to your Corporation.

What is a Utility Patent?

Many of your Corporation's most important patents are utility patents. Utility patents are classified in one of the following categories or statutory classes:

- Process: A method or the steps for producing a result (such as an improved of photocopying or packaging a computer device)

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- **Machine:** An operable structure (such as a can opener or a computer).

- **Manufacture:** An object made by an individual or machine (such as a chair or a computer mouse-controller).

- **Composition of matter:** A homogeneous compound or a mixture of two or more ingredients (such as aspirin or a solvent for cleaning components). New chemicals can be patented only if usefulness can be demonstrated.

- **Improvements:** Something that improves anything in the preceding classes (such as adding whitener to a soap powder or a new module to a computer).

The period of protection for utility patents is 17 years in the United States.

What is a Design Patent?

Design patents, another statutory class, can be granted for any new and nonobvious ornamental design for an article of manufacture. The protection covers the appearance of the article only and not its structure or usefulness.

Design patents are typically granted for manufactured items, such as furniture, housewares, and tire treads. Some of your Corporations' products or manufactured goods may have been protected by design patents.

The period of protection for design patents is 14 years in the United States.

What cannot be Patented?

Some subject matter, no matter how novel, useful, and nonobvious, cannot be patented. Things useful only for immoral, frivolous, fraudulent, and antipublic-policy uses are not patentable. The Atomic Energy Act of 1954 prohibits patenting of an invention used "solely in the utilization of special nuclear material or atomic energy in an atomic weapon."

Court interpretations have narrowed the classes of inventions that are not patentable. Things that occur in nature, such as chemical elements, biological organism capable of natural reproduction, and physical phenomena, cannot be patented. Patents cannot be granted for work based on the arrangement or use of printed matter, or intangible processes and systems, such as a method of doing business or layout of a building.

Scientific principles, unembodied ideas, mathematical algorithms, and mental processes cannot be patented because they do not include tangible solutions and because they are considered to exist in nature. However, an invention that contains or whose functions are based on these principles, ideas, or algorithms may be patented.

What is a Patent Application?

A patent application is a set of formal documents submitted to the U.S. Patent and Trademark Office or a non-U.S. Patent Office. The heart of the application is a detailed specification that describes the invention, its structure, how it works or operates, and the claims that delineate the exact subject matter of the invention. A detailed description of a U.S. patent application is provided in a subsequent chapter of this guide.

Who is granted the Patent?

Unlike most countries, in the United States patents are granted only to individuals. They cannot be granted to corporations. Inventors, however, can assign the patent to others, including employers, which is the usual practice. An employer who owns the patent application can assume the prosecution of the patent rights before the U.S. Patent and Trademark Office. Outside the United States, corporations can file and prosecute patent applications in their own name.

Usually, employees are required to sign an "Employee Agreement" when they are employed by Corporations. The "Employee Agreement" provides that each employee will assign to the Corporation the rights to all inventions developed during the course of employment with said Corporation.

The "Employee Agreement" varies slightly to conform with different state laws. A typical "Employee Agreement Form" is shown later on in this guide.

Chapter 4

How do I begin?

This chapter describes the preliminary steps an inventor takes toward filing a patent application.

Overview of a typical Patent Filing Process

As an inventor, you should first discuss your idea for an invention with your supervisor, manager, or an engineering manager. A Patent Engineer (an engineer familiar with some aspects of patent law) sometimes work with you to prepare an Invention Disclosure Form.

The Patent Engineer or Attorney submits the completed form to your Intellectual Property Protection Committee and fills out a Patent Docket Number Request Form. This form is use to track your application through the process. Sometimes, the inventor is required to present their Invention Disclosures before the Intellectual Property Protection Committee.

Once the Intellectual Property Protection Committee approves the filing of the patent application, the Invention Disclosure Form is forwarded to a patent attorney who prepares the formal patent application, often including a patent search. After the application is complete, it is filed with the U.S. Patent and Trademark Office.

Your Corporate Patent Filing procedure may differ slightly from the one presented here however, most of the procedures involve preparation of the "disclosure" and careful review and approval. Other countries follow similar invention application procedures.

Conception and Reduction to Practice

In the United States a patent can be granted only to the first person who makes an invention ("first-to-invent"). This means that if two or more individuals submit similar patent applications, the patent will be granted (if it is granted at all) to the applicant who first made it - not to the first individual who submitted the application.

Making the invention includes both conception of the idea and reducing the invention to practice. Reduction to practice usually means making a working embodiment, unless a written description alone is adequate and the description is incorporated into the patent application. It must occur within a reasonable time after conception, with the inventor using due diligence from the time of conception to reduction to practice. If your invention is not reduced to practice, another inventor, who is second to conceive, but first to reduce to practice, can have a prior right to obtain the patent.

Importance of Keeping Records

The records you keep are very important. Not only must you show that you conceived of the idea behind the invention before anyone else; you must also show that you were reasonable and diligent in reducing the invention to practice.

Careful record-keeping provides a legal record to substantiate the conception of your invention and reduction to practice. Some Corporations require the use of Engineering Notebooks, particularly for work involving a description of a development that may be patentable. Any notebook you use, including laboratory notebooks, should be hardbound with numbered pages.

Notebook entries should be similar to a diary, with a dated entry each time you work on the invention or spend significant time thinking about it. It should show the exact date, if possible, when you first had the idea for the invention, and the dates of significant efforts and events in reducing the invention to practice. If you do not have an exact date, then record the approximate dates. if more than one individual is working on the project, as is likely, everybody involved should keep separate records.

Witnessing of the records should occur periodically and frequently. This should be done by someone other than the inventors, such as a supervisor or an engineering manager. The individual witnessing the record must be capable of understanding the contents. The witness should write "Read and Understood" along with the date and signature.

If your record are recorded electronically, you must verify that the work was done as recorded and was not altered. This can be done by periodically printing a hard copy and having it witnessed, or by recording the finding in an unalterable (write once, read only) medium.

Who can help me?

If you think you have a potential invention, discuss it with your supervisor, business manager, engineering manager or contact your legal counsel. Do not hesitate to ask for help if you have any questions or just need some information about patents. Remember that the primary interest of your supervisor, business manager and engineering manager is to help you and your Corporation obtain protection for your invention. They will discuss your ideas with you and provide help and suggestions.

Invention Disclosure

An Invention Disclosure is completed jointly by you and the patent engineer or patent attorney when you both think that you have made an invention. Some Corporations called this the "Patent Disclosure Form" or the "Record of Invention Form" process.

Often time Intellectual Property Protection Committees use the Invention Disclosure process to determine if a patent application should be filed. The process provides a framework and outline for you to use to give information about your invention. Because the decision to apply for a patent depends largely on what you and your patent engineer or patent attorney write on the Invention Disclosure Form, you should fill out the form carefully and completely. Patent applications are expensive, time consuming, and use valuable human resources.

The decision to file a patent application must make sense from three points of view; business, technology, and legal. The invention must be new, nonobvious, and useful, and the filing must make business sense to your Corporation.

An Invention Disclosure (or Patent Disclosure or Record of Invention) should be completed at the prototype stage or sooner during the development cycle of a product. Prior disclosure can reduce or eliminate some patent rights obtainable by your Corporation. Therefore, complete the "Invention Disclosure" well in advance of any incorporation of the invention into a product that is marketed, shipped, or described in any publication outside of your Corporation, or otherwise disclosed.

What are the attributes of an Invention Disclosure?

A complete and thorough Invention Disclosure has the following attributes. The disclosure:

- **Is clear, specific, and differentiates your invention from the current state of the art.**
- **Explains why the invention is new, useful, and nonobvious.**
- **Can indicate why the invention makes good business sense, if appropriate, by hindering vendors and competitors from making, using, or selling competing products.**
- **Can tell how the invention makes good business sense, if appropriate, if the proposed patent or technology can be licensed to produce revenue.**

- Can suggest other ways your Corporation can utilize the patent rights to facilitate business opportunities.

- Contains sufficient technical disclosure and information for your Corporation to make a decision.

Before completing the disclosure, review all relevant documents you have that pertain to the invention, such as laboratory notes and your Engineering Notebook. Refer to them as you fill out the form.

Completing the Invention Disclosure:

With the assistance of your patent engineer or patent attorney and the following guidelines, fill out the form completely and thoroughly.

- Title: Describe the invention in a few words. Gives the project name and any other names by which the invention is known in the Corporation. Identify the products in which the invention will be used, or any products that will be made or manufactured using the invention.

- Abstract: Write a two or three sentence description of the invention.

- Inventorship:

a. Who - Give the full name (including middle), citizenship, residence address (including country), and employee identification number. If you are not sure who the inventors are, list all possible candidates, explain each one's contribution, and have all possible contributors sign and date the completed form.

b. <u>When</u> - **Date of Conception - When did you get the idea? Include a copy of the pages from the Engineering Notebook, laboratory notebook, or other report that document the conception of the invention. If you did not record the initial conception at the time it occurred, give the approximate date of conception and the date it was first written down, and explain what happened in between.**

c. <u>When</u> - **Date of Reduction to Practice - When did you make a working embodiment? Include a copy of the report, dated drawings, laboratory notebook, and so forth showing when the invention was first reduced to practice. This should be the first date the invention was made or produced into something recognizable as a working embodiment, such as a prototype or an experiment that worked. If you did not write it down until later, give the date of the conception and the date it was reduced to practice, and explain what happened in between.**

- The Invention:

a. Purpose - Explain in simple language what the invention is intended to do, how it does it, and who will use it.

b. Background matter - Briefly explain the present way of doing the same thing. If you know of any patents or publications that discuss something similar to the invention, list them here and include copies if possible. Explain how your invention differs from each of these pieces of prior art.

c. The Hows - Explain exactly how the invention works. Go through the invention step by step and piece by piece. Include such things as specific operating range and alternatives to certain steps or components. Attach diagrams, tables, photographs, references to earlier attachments, and so forth. If you have discovered any special parameter ranges, components, materials, and so forth which works best, describe them.

d. The Whys - Explain the advantages your invention has over old ways of doing things. How will your Corporation benefits? If you can, quantify any cost savings, performance increases, quality improvements, and so forth.

- Related Inventions:

a. <u>Patents</u> - List all your patents, patent applications, and disclosures on similar subjects.

b. <u>Joint Research</u> - If the invention was made during a joint research project, include a copy of the contract or agreement between the parties. You should also include a copy of any consultant involved in the project or work.

- Commercialization and Publication:

a. <u>Use or discussion outside of your Corporation</u> - If the invention has been discussed or demonstrated outside of your Corporation, such as with vendors or potential customers, list the parties and dates. State if this was done under any nondisclosure agreement, and include copies of any such agreement if you have them. If future discussions or demonstrations are planned, give the approximate dates.

b. <u>Publications</u> - If you or other inventors have presented papers or published articles on the invention, give the meeting or publications and dates. If future publications or presentations are planned, give the approximate dates.

c. Commercialization - If the invention is a product or will be used in a product, give the date of product announcement and first revenue ship. If the invention is a process or production machine, explain when it will be used to design or make a commercial product.

- Who and Where within your Corporation:

a. How to reach you - List your telephone number, and address for every inventor.

b. Your Supervisor - List the names, telephone and address of your supervisor, business manager or engineering manager.

c. Others involved in the project - List the names, telephone numbers, names of supervisors or managers of others involved in the project, including technicians. Explain their role in the conception, reduction to practice, and development of the invention.

- Products use:

- Explain what Corporate products use or embody the invention. Will it be used in additional future projects or products?

- Signatures:

- The disclosure must be signed by each named inventor and witnessed by two witnesses. The witnesses must have enough technical knowledge in the field to understand the invention.

Chapter 5

How does your application get reviewed and filed?

This chapter describes the rigorous review process your disclosure application and invention undergoes and the step by step process for filing for patent after a favorable review.

Review by your Intellectual Property Protection Committee

The review process actually starts when you first talk with a patent engineer or patent attorney within your business before and during the preparation of an invention disclosure. The patent engineer or patent attorney sends the completed invention disclosure to your business Intellectual Property Protection Committee for review and approval.

Most Intellectual Property Protection Committees invite the inventor(s) to make a presentation at a meeting. This can be an important part of the review process. You are asked probing questions about the invention, such as what led you to the invention, similar inventions you know about, applications and uses for the invention, and so forth.

The decision whether to pursue a patent application or not depends on a complex interplay of business, technological, and legal considerations. All of them must come together in a way that makes sense for the Corporation to file for a patent.

For example, your invention may be similar to existing art and therefore not patentable. The invention may not have an immediate or widespread application for the Corporation. Sometimes, for business reasons, the Intellectual Property Protection Committee may decide to keep your work a trade secret instead of applying for a patent.

You are notified of the Intellectual Property Protection Committee's decision either at the meeting or soon thereafter. One of the following decisions is made:

- Disapproves filing a patent application. if appropriate, the committee recommends that the work be protected by a copyright or trade secret.

- Request additional information from the inventor(s). The review continues after the requested information is received.

- Recommend filing a patent application if the results of a patent search are favorable. It is sometimes difficult to know if a proposed invention is, indeed, unique. A patent search is a computer and literature review of prior art, including patents and publications, to determine whether or not your invention can be patented, and what precisely is unique about your invention.

  This action can be pursue when the Intellectual Property Protection Committee feels that you have a worthwhile invention, but the committee does not know enough about similar existing art to make an informed decision. If the patent search is favorable, and other factors justify filing an application, the Intellectual Property Protection Committee recommends that a patent application be filed.

- Recommend filing a patent application with the U.S. Patent and Trademark Office.

How is the U.S. Application prepared?

When the decision is made to file an application, the responsible patent attorney initiates preparation of the patent application for subsequent filing with the U.S. Patent Trademark Office. The application itself is prepared by the patent attorney, a specialist in the field admitted to practice before the U.S. Patent and Trademark Office.

The patent attorneys goes over all available material and can contact you - possibly several times - for further information. A well drafted invention disclosure can keep this contact to a minimum and reduce the cost of preparing the patent application.

Another, more thorough patent search can be conducted, usually at the U.S. Patent Trademark Office's extensive library in Washington, DC. If this proves favorable, the patent attorney prepares the actual patent application.

The patent application is an extensive, detailed document. it must describe the invention clearly, concisely, and completely, and must point out and distinctly claim the precise subject matter that you regard as your invention.

The application contains the following sections:

1. Title of the invention

2. Abstract

3. Cross-references to related applications (if any)

4. Background

   a. Field of the invention
   b. Description of the prior art

5. Summary of the invention

6. Brief description of the drawings

7. Preferred embodiment of the invention (structure of the invention and how it works)

8. Claims (precise, detailed explanation of exactly what distinguishes the invention from prior art)

9. Drawings

10. Oath or declaration (for you signature)

11. Assignment form (to assign the patent rights to your Corporation)

As you can see, the patent application is a complex document. It is reviewed by all the inventors, the patent engineer, and the responsible patent attorney within your Corporation.

Go over the application with extreme care. Make sure you understand everything, and that it is accurate and complete. Keep track of any additions, deletions, or suggestions.

When the application is in final form, all the inventors must sign and execute the oath and assignment form. The application, with a cover letter and required fee, is submitted to the U.S. Patent and Trademark Office by the patent attorney.

What happens at the U.S. Patent and Trademark Office?

Your application is initially classified, sent to the examining group that deals with your invention's class, and assigned to a patent examiner. The examiner becomes familiar with your application and conducts a patent search. When the search is complete, the examiner, following the guidelines of patent law (new, useful, and nonobvious), determines which of your claims are allowed and which are rejected.

The findings are sent to the patent attorney in a letter known as an Office Action (OA) that specifies for each claim whether it is accepted, rejected, or objected to. It is not uncommon for an application to be rejected in whole or in part several times during the examination process. The patent attorney can meet with the patent examiner to discuss the reason for the objections.

After each unfavorable Office Action there is a period in which to accept the findings, abandon the application, or prosecute (respond to) the Office action. The decision is based on what is best for the Corporation.

If the patent application is still rejected after prosecution, your Corporation has the right to appeal through a U.S. Patent and trademark Office review board and, if necessary, through the courts.

How is the Patent Issued?

To U.S. Patent and Trademark Office can take two years or more to issue the patent. Contact your patent engineer or patent attorney to monitor the progress.

When the application is finally approved, formal notices are sent, the final fees are paid, and the U.S. Patent and Trademark Office issues and official ribboned patent to your Corporation, with copies to all inventors and co-inventors. Copies of your patent application are placed in the U.S. Patent and Trademark Office's public search files, and your patent becomes public knowledge.

Chapter 6

Will your Corporation File for Patents in other Countries?

Your Corporation or Institution may do business in many countries, and worldwide patents are important to them. This chapter discusses filing patent applications (known as certificates of invention in some countries) in countries other than the United States. Detailed patent law and information for every country would fill several libraries. This chapter gives you a summary only.

Is a Patent needed in other Countries?

If you have a patent or patent application in the United States, your invention is protected in that country. However, anyone in another can make, use, or sell your invention without your permission or even your knowledge. To protect its assets, your Corporation must file for patents in several countries.

The decision to file for patent in other countries is made by your Corporation during the review process. The decision to file is based on business, technological, and legal considerations similar to those in the United States, although these conditions can vary considerably from country to country.

Here are some things that your Corporation must considered before filing for non U.S. patents:

- How strategic is this invention? If it is a crucial invention used in products manufactured and sold by your Corporation in many countries, the decision may be to file in several countries.

- What are the projected sales in the country? If it is a small country or one in which your Corporation does limited business, it may not be worthwhile to obtain a patent.

- How difficult is to obtain a patent in the country? Patent laws and procedures vary widely.

- What costs are involved? Filing fees and costs vary widely, and are very high in some countries.

What is First Filing?

When a patent application is filed in more than one country, the first country in which the application is filed is known as the first filing country (not to be confused with first to file countries). The United States and many countries in Europe have stringent export control laws that prevent applications based on inventions originating in a *"first filing"* country from being *"first filed"* in a second country without an export license. for example, an invention that originates in the United States must, under U.S. laws, have an export license before it is filed in another country.

Will Prior Disclosure Prevent Filing?

In the United States and Canada, for example, an inventor has twelve (12) months in which to apply for a patent application after an invention has been placed in public use, described in a printed publication, or offered for sale. But in most countries, any prior disclosure can be a statutory bar filing. For further information consult with your patent attorney.

Is the Country a First-To-File Country?

In the United States the first person to conceive of an invention and reduce it to practice has priority for patenting the invention, even though somebody else may have filed a patent application first. In most countries, the patent is granted to *whoever files the application first*, regardless of any actual prior inventor. this means that a fast and timely filing is very important, even though a large number of applications are later abandoned before a patent is issued.

Suppose There Are Two Inventors from Different Countries?

When there are two or more joint inventors from different countries, you Corporation, with the assistance of your patent attorney, determines which country should be the one to file in first.

Chapter 7

Corporate Patent Incentive Award Program

Corporate inventors receive special recognition and rewards for their creativity, industry, and service. In appreciation for their work, inventors receive a monetary award when patent applications are filed. Inventors can also receive additional monetary awards and engraved plaques when the patent is issued.

To be eligible for an award, the application must be an originally filed application anywhere in the world, and the inventor must meet the following conditions:

- The inventor must be named on the application (for an application award) or on the patent (for an issued patent award)
- The inventor must sign the declaration of invention
- in most cases the inventor must be an employee of the Corporation at the date of filing (for an application award) or when the patent is issued (for an issued patent award)
- The inventor must assign the patent application and patent to the Corporation prior to issuance.

The following table shows typical amounts of the awards to individual inventors for each patent when the application is filed or when a patent is issued. To all of the awards, federal and state income taxes are added.

Patent Incentive Award - One Inventor

	Design Patent		Utility Patent	
	Application Filed	Patent Issued	Application Filed	Patent Issued
Award	**$250**	**$250**	**$500**	**$500**

When there is more than one inventor, the following award schedule is proposed for the other inventors.

- Utility Applications and Issued Patents

  - Up to three inventors - each inventor receives $500

  - More than three inventors - all inventors share a total of $1500 (for example, five co-inventors receive $300 each)

- Design Applications and Issued Patents

  - Up to three inventors - each inventor receives $250

  - More than three inventors - all inventors share a total of $750 (for example, five co-inventors receive $150 each)

Awards for Additional Patents

Productive inventors can receive additional awards for multiple issued patents and filed applications. The following table shows a proposed schedule of awards:

Patent Incentive Award - For Multiple Inventors

	Design Patent		Utility Patent	
	Application Filed	Patent Issued	Application Filed	Patent Issued
5th Patent	----	----	----	**$5,000**
10th Patent	----	**$2,500**	**$2,500**	**$10,000**
15th Patent	----	----	----	**$15,000**
20th Patent	----	**$2,500**	**$2,500**	**$20,000**

Awards for Non U.S. Patents

Award systems for patents (application or issued) differs for some non-US patents, particularly in first-to-file countries. Mandated statutory awards are the law in some countries.

Chapter 8

EMPLOYEE AGREEMENT FORM
(SAMPLE)

In consideration of my employment by XYZ Company, its successors and assigns, a California Corporation, I hereby agree as follows:

1. I will make full and prompt disclosure to XYZ Company of all inventions, improvements, modifications, discoveries, methods and developments (all of which are collectively termed "development" hereinafter), whether patentable or not, made or conceived by me or under my direction during my employment, whether or not made or conceived during normal working hours or on the premises of XYZ Company.

2. Upon request by XYZ Company, I agree to assign to XYZ Company all development covered by Paragraph 1 and any patent or patent application covering such developments and to execute and deliver such assignment, patents and applications, and other documents as XYZ Company may direct and to fully cooperate with XYZ Company to enable XYZ Company to secure and patent or otherwise project such developments in any and all countries. However, this Paragraph 2 shall no apply to developments which do not relate to the actual or anticipated business or research and development of XYZ Company or its subsidiary or affiliated corporations, provided that such developments are made or conceived by me entirely during other than XYZ Company working hours, and not on XYZ Company's premises and not with the use of XYZ Company's equipment, supplies, facilities, tools, devices, or trade secret information.

3. I hereby represent that, to the best of my knowledge, I have no present obligation to assign to any former employer or any other person, corporation or firm, any developments covered by Paragraph 2. I also represent that, to the best of my knowledge, there is no legal prohibition including but not limited to an agreement with any former employer that might prevent me from performing my duties of employment with XYZ Company.

4. I will also assign to XYZ Company any and all copyrights and reproduction rights to any material prepared by me in connection with my employment.

5. I will not disclose to XYZ Company, or induce XYZ Company to use any confidential information of other persons, corporations or firms, including my former employers (if any).

6. During the course of my employment by XYZ Company, I may learn of XYZ Company's confidential information or confidential information entrusted to XYZ Company by other persons, corporations, or firms. XYZ Company's confidential information includes matters not generally known outside of XYZ Company, such as developments relating to existing and future products and services marketed or used by XYZ Company and also data relating to the general business operations of XYZ Company (such as concerning sales, cost, profits, organizations, customer lists, pricing methods, etc). I agree not to disclose any confidential information of XYZ Company or such other persons, corporations or firms to others or to make, use of it except on XYZ Company's behalf, whether or not such information is produced by my own efforts. Also, I may learn of developments, ways of business, etc., which in themselves are generally known but whose use by XYZ Company is not generally know, and I agree not to disclose to others such use, whether or not such use is due to my own efforts.

7. At the time I begin my employment and during the term of my employment by XYZ Company, I will not engage in or become employed by or act on behalf of any other person, corporation or firm which is engaged in any business or activity similar to or competitive with that of XYZ Company, unless such employment has been approved by XYZ Company in writing and signed by an appropriate personnel manager of XYZ Company.

8. In the event that my employment is transferred by XYZ Company to a subsidiary or affiliated company (as the case may be), my employment by such company will, for the purpose of this agreement, be considered as continued employment by XYZ Company, unless and until I execute an agreement, substantially similar in substance to this agreement, then in force in any such company for which I become employed.

9. I hereby give XYZ Company permission to use photographs of me, either during or after my employment, with or without using my name, for whatever purposes it deems necessary.

10. Upon termination of my employment, unless my employment is transferred to a subsidiary or affiliated company of XYZ Company, I agree to leave with XYZ Company all records, drawing, notebooks and other documents pertaining to XYZ Company's confidential information, whether prepared by me or others, and also any equipment, tools or other devices in my possession which are own by XYZ Company.

11. My obligations under this agreement shall survive the termination of my employment regardless of the manner of such termination, and shall be binding upon my heirs, executors and administrators.

Witness my Hand and Seal

Signature_____ **(Seal)**
Date_____

Witness_____

Patent Docket Number Request Form
(SAMPLE)

Docket Number:_____

Patent Attorney:_____ **Patent Engineer:**_____

Engineering Manager:_____ **Business Manager:**_____

New File? **Yes**__ **No**__ **Existing File? Yes**__ **No**__

Title:_____
_____
_____
_____

Bar Date: **Yes**__ **No**__ **If "yes", state the Bar Date:**_____

Publication/Announcement/Shipping Date:_____

Name of Contributor(s): _____ _____ _____
_____ _____ _____

Citizenship: _____

Telephone Num (include area code): _____ _____

Relevant Product(s): _____
_____

Brief Description of Invention: _____
_____
_____
_____

Date of Submission:_____

Search conducted? **Yes**____ **No**___ **By Whom**_____

If "yes": **Control Number**_____ **Where**_____

Appendix A

What do all those terms mean?

Certificate of Invention

The term used by some countries for certain kinds of patents

Claim

One or more statements at the end of a patent application that precisely define the scope of the invention for which patent protection is granted or sought.

Copyright

The right of an owner of a work of authorship or artistic expression, fixed in a tangible form, to exclude others from copying the work and using it for commercial purposes.

Design Patent

A patent covering an original ornamental design or configuration for an article of manufacture. Issued for 14 years in the United States.

Disclosure

A description or revelation of an invention; the inventor's written statement of the subject matter of the invention and how it operates.

Engineering Notebook

A bound notebook with numbered pages used to record all progress and work toward an invention.

First-to-File Countries

Countries, such as Japan, in which the patent is granted to the inventor who first files the patent application, rather than the first person who actually invented the article or process.

Intellectual Property

Any product of the human mind that has some value in the marketplace.

Intellectual Property Protection Committee

A corporate committee that sets policies and procedures concerning patents and other intellectual property protection.

Invention

A new device or process that may be patentable.

Invention Disclosure Form

Form used by employees to explain their proposed invention to the Corporation and/or Corporate Intellectual Property Protection Committee.

Mask Works Notice

A notice, similar to a copyright notice, placed on mask works to give notice to others that substantial copying or duplicating of the mask works is a violation of the rights of the mask works rights owner.

Office Action

A letter from the U.S. Patent and Trademark Office that specifies whether the claims in a patent application are accepted, rejected, or objected to.

Patent

A grant by the U.S. Patent and Trademark Office, or similar office in other countries, to an inventors for the right to exclude others from making, using, or selling an invention for period of years.

Patent Agent

An individual who is not an attorney but who is certified to practice before the U. S. Patent and Trademark Office.

Patent Application

An application for a patent submitted to the U. S. Patent and Trademark Office or similar office in other countries.

Patent Attorney

An attorney certified to practice before the U.S. Patent and Trademark Office.

Patent Engineer

An engineer trained in some aspects of patent law and procedures.

Prior Art

All of the pertinent and applicable patents, publication, public knowledge, and use that exists at the time an invention is made.

Search

An investigation of the applicable prior art to determine if the invention is new, and what, if any differences exist for the prior art over the invention.

Specification

The detailed description, including drawing, of the structure and operation of an invention, contained in a patent application.

Trademark

A word, phrase, graphic symbol, or combination of any of these used to identify the origin of goods.

Trade Secret

A formula, process, device, or other information that is intentionally kept secret (rather than being patented) for use in a business, and which gives the owner a competitive or potentially competitive advantage.

Utility Patent

A patent covering a new, useful, and nonobvious process, machine, article of manufacture, or composition of matter.

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