What Is A Patent? The Limited Monopoly

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There is certainly no shortage of technically talented and inventive people in our area who could answer this question. Rochester consistently ranks at or near the top nationally in many measures of intellectual property generation, such as utility patents issued per thousand workers. Patent issuance is considered a major indicator of R&D and innovation capability, and at about 2.3 patents per thousand workers, Rochester typically performs at around six times the national average in this metric. Patents are the lifeblood in today's technology sector, and an understanding of what they are and how they work is an essential tool for every engineer's toolbox.

So, what is a patent? Simply put, a patent is a property right. There are basically three major classifications of "property" as commonly referred to in our society:

1. **Personal property** includes objects that belong to us, such as cars, furniture, tools, etc.

2. **Real property** includes land and buildings located on the land.

3. **Intellectual property** is the least tangible of the three classes. Intellectual property (as defined by *Black's Law Dictionary*) is a class of "rights protecting commercially valuable products of the human intellect." They include patent rights, and also include such instruments as copyrights, trademarks, and trade secrets, among others.

There are several types of patents in the United States, each serving to define the boundaries of one's intellectual property rights. As engineers and scientists, we are often in roles where we are creating and inventing as part of our day-to-day jobs. Inventions are the foundation of all sustainable wealth creation in this country, and the engineers and scientists of today and tomorrow are those who are most in a position to invent and create as part of their work.

What a great position to be in! However, like any skilled profession, it is important to know what tools you have available to you to not only effectively perform your job, but to succeed and flourish. Knowing the intellectual property protection that is available through the United States Patent and Trademark Office is critical information for those of us who create, invent, design, and build products, and otherwise contribute to true economic development and job creation

A patent is a property right that is granted by a government authority, such as the U. S. Patent and Trademark Office. It can be compared to a real estate deed in that it defines the metes and bounds of an invention. Similar to real estate, a patent can be licensed, assigned or conveyed. A United States patent does not grant the inventor or owner the right to use the invention, but rather gives the inventor or owner the right to exclude others from making, using, or selling the invention in the United States, or its territories or possessions.

In order to obtain foreign patent protection, a patent application must be filed in each foreign country where protection is desired. It is important to note, however, that a United States Patent alone cannot prevent a company in China, for example, from making and using an invention in China, but can prevent the company in China from importing and selling the invention in the United States.

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A patent is also considered to be a contract with the government that grants to the inventor a monopoly for a fixed period of time in return for a full disclosure to the public of how to make and use the invention. This monopoly can be quite valuable to the inventor

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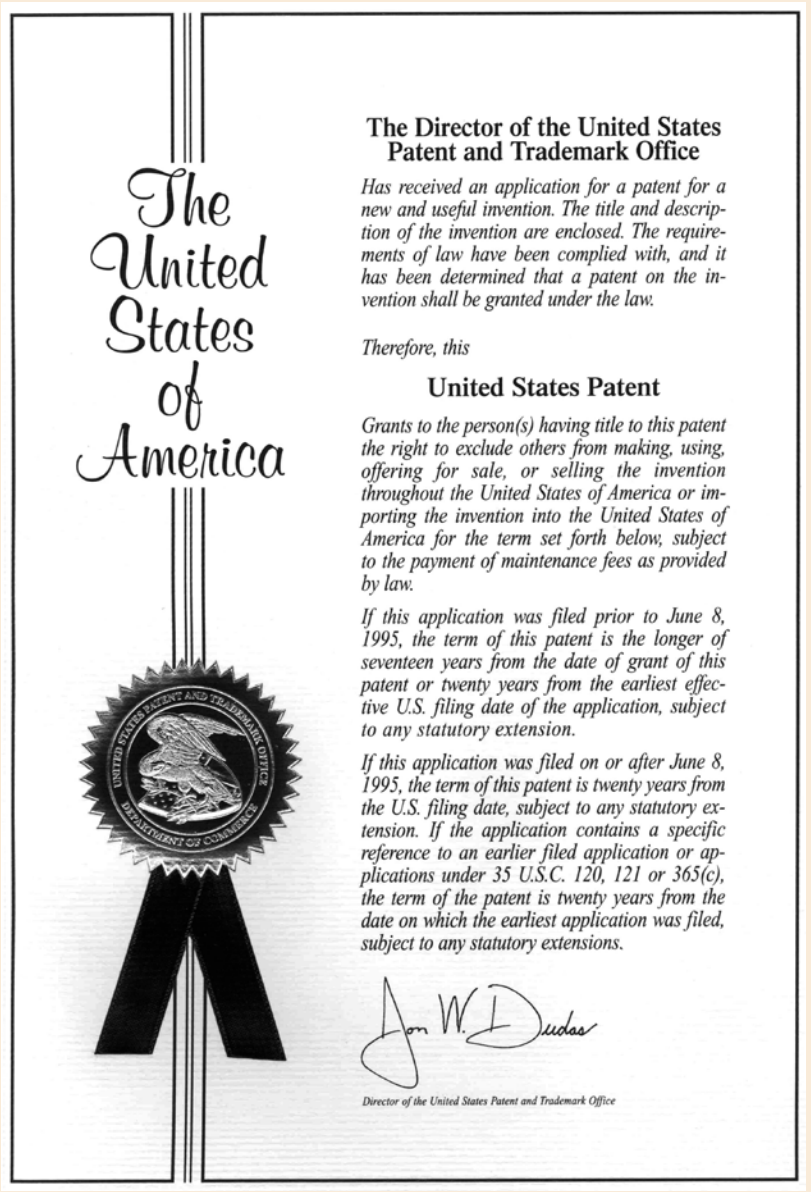
should his/her invention become commercially successful. However, the contract is hardly a one sided deal: our patent system serves the public interest in a substantial way in return for the grant of that time-limited monopoly.

When a patent expires, the public is free to use that full disclosure in the patent as a recipe to practice the invention, free of payment of any royalties to the inventor. Our U.S. Patent Office thus serves us as one of the largest repositories of technical knowledge in the world, on every subject that you could possibly imagine.

The basis for our patent system was originally set forth in Article I, Section 8, Clause 8 of the United States Constitution, which states that "Congress shall have the power…To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The legal basis for patents is based on Title 35 of the United States Code, as enacted by Congress, and further defined by way of Title 37 of the Code of Federal Regulations.


The United States of America

The Director of the United States Patent and Trademark Office

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extensions.

Jon W. Dudas

Director of the United States Patent and Trademark Office

The Patent Office also has issued a manual entitled the "Manual of Patent Examining Procedure (MPEP)" that consists of thousands of pages precisely defining the process that a patent examiner follows in studying a patent application and deciding whether a patent shall be granted. Knowing the contents of the MPEP is a major requirement in becoming a patent practitioner or a patent office examiner. Patent practitioners include both patent agents and patent attorneys; both are licensed by the United States Patent and Trademark Office after meeting specified technical competency requirements and satisfactorily passing the patent bar exam.

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Types of patents in the United States include utility patents, design patents, and plant patents. A **utility patent** protects the way something works, provided that it falls under specific statutory classes. The invention must be a composition of matter, an article, an apparatus, or a method or process of accomplishing something. A utility patent application may contain multiple claims that define the invention. The term of a utility patent is currently twenty years from the date of application filing.

A **design patent** protects the way something looks, essentially its "ornamental appearance," and has a term of fourteen years from the date of issue. Design patents are often sought for a particular product when a decision to buy the product is based largely on its appearance. Jewelry, eyeglass frames, athletic shoes, and even entire automobile bodies have been the subjects of design patents.

Lastly, a **plant patent** protects "asexually propagated plants that are produced by means other than from seeds such as rootings, cuttings, budding, grafting, or genetic manipulation," and also has a term of twenty years from the date of application filing.

The topic of patents is one that has many aspects. The authors plan to discuss interesting topics related to patents in future issues. They also offer a course entitled "Introduction to Patents" that qualifies for one PDH credit hour. More information on the course can be found at www.patenteducation.com.

Gunderman (Patent Technologies, LLC www.patentechnologies.com) and Hammond (Patent Innovations, LLC www.patent-innovations.com) are both registered patent agents and licensed professional engineers.

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