

How to get your ideas approved

Is a Patent in Your Future?



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DURING A RECENT DISCUSSION OF PATENTS AND trademarks, the editor asked that I write a column on each topic from a nonlegal perspective, summarizing the steps to obtain patent and trademark protection.

This column reviews how to obtain and maintain a patent and comments on commercializing worthwhile ideas. Obviously this material cannot be all-inclusive nor is it intended to provide legal advice. My perspective is from 25 years of working with patent attorneys in many different settings: going through the application process, deciding how to protect ideas, providing testimony in patent litigation and participating in licensing arrangements.

The idea

Any patent starts with an idea for a product, a process or an improvement to existing

devices. At this stage, protecting ideas by detailing its features with preliminary data and sketches in a bound notebook is the first step. Dated and signed entries should also be countersigned by at least one person who is not one of the inventors. It also is necessary to investigate related technologies and patents. Take care to keep the idea confidential. Early disclosure without confidentiality agreements may jeopardize a future patent. While most corporations have a formal process to document and protect inventions, private inventors should research this endeavor carefully or obtain professional help from a knowledgeable source.

Protecting the idea

Additional research-and-development activities usually lead one to determine:

- How does the new idea fit with existing product strategies?
- Should the idea be abandoned?
- Should the idea be protected by a patent?
- Should it be maintained as a trade secret?

In larger corporations these decisions are usually made by committees charged with protecting the firm's intellectual property. The cost of the patenting process usually makes the strategic questions the most important in proceeding with patents.

After making a decision to proceed, you must choose between two types of patents: a utility patent for a process or product or a design patent that describes an original ornamental design for a product. A third patent type for plants (e.g., biological hybrids and mutants) is of little interest to the petroleum equipment industry.

Full protection for an idea starts with the patent application process. To minimize upfront costs and maximize legal protection, several prior options exist for filing a patent. Prior to actually filing a patent application, an Invention Disclosure Document (tells the legal date of conception for an idea) may be filed with

the U.S. Patent and Trademark Office (PTO) for a small fee. The disclosure document is held at the PTO for two years or possibly longer if referenced by a patent application. While it does not protect an invention from being copied, it does protect the date of conception.

The next option is to file a provisional patent application, an abbreviated application that costs 20 percent of the normal filing fee and is held by the PTO for one year. Within that period, it may be converted to a regular application or a new application may be filed, referencing the provisional application. The advantage of this option is a lower initial cost, while allowing time for additional studies and still providing an early filing date for the invention.

Most corporations have in-house patent attorneys or they work with outside counsel. For private inventors, options include a patent attorney, a registered patent agent, applying without outside assistance or a combination of self-help with professional assistance. Patent agents are individuals who are not attorneys, but have passed the PTO examination and are allowed to represent clients at the PTO. A number of good books on patent law are now available; a self-help legal publisher, Nolo Press (www.nolopress.com) offers the most comprehensive set of books, notebooks and software for inventors. In addition, the PTO web site (www.USPTO.gov) offers significant assistance and all necessary forms.

After filing a patent application, several office actions between the PTO patent examiner and the inventor (or the representative) are generally required to sort out claims construction, overlap with existing patents, and other issues. Meetings officially called interviews between the examiner and inventor also can be arranged to discuss differences.

In making decisions about the validity of an idea, the examiner will consider applicable provisions in U.S. Code 1.35 § 101-103. This code lists several conditions for issuing a patent.

Here is a summary of the most important:

■ The subject of the invention must be novel and not obvious to one skilled in the art.

■ The invention must not be covered by another U.S. or foreign patent, which has an earlier application date.

■ The invention must be in use or offered for sale (as a product), or must have been published here or abroad less than a year prior to the date of the patent application.

■ The invention must have been disclosed by an invention Disclosure Document or by foreign patent filings less than a year prior to the date of the patent application.

After resolving all PTO objections, the examiner will issue a Notice of Allowance. The final patent is issued within six months of paying all fees. Once issued, patents are valid for 20 years, provided all necessary fees are paid (17 years prior to 1995).

The entire patent process may require from one to several years. I have seen patents issued within a year of application date, while others have taken as much as eight years.

Costs and resources

Patenting an idea will incur attorney and PTO fees. Only the PTO costs are fixed. Professional fees for filing and prosecuting patent applications are generally between \$5,000 and \$15,000. The 1999 PTO fee structure includes many fees for various services. The important ones are: \$760 for filing, \$1,210 for issuing and \$5,750 for maintaining the patent for its 20-year life. The latter is paid in three increments at 3 1/2, 7 1/2 and 11 1/2 years. Individuals or small businesses may enjoy a fee structure that is half of the above amounts.

In addition to the PTO web site, the government offers other resources to inventors. The Small Business Administration and the Department of Energy and the Department of Defense (DOD) list

numerous publications and other aids on their web sites. The Small Business Innovation Research program administered by DOD offers potential funding of development efforts and cost sharing of commercialization efforts.

Commercializing the patent

Marketing must occur after obtaining a patent to recover the considerable costs and resources. The sad fact is that patents are not the road to fame and fortune. Government statistics indicate that fewer than 5 percent of all patent inventions ever make money. That number is considerably less for private inventors.

Centuries ago alchemists sought the Philosopher's Stone to

turn lead into gold. Many inventors consider the fruits of their labor to be the modern equivalent of the Philosopher's Stone, and have unrealistic expectations about the value of their ideas. Unfortunately, most never learn the bitter fact that inventions, like all other concepts, must be marketed to achieve success.

Petroleum equipment patents

The petroleum equipment industry has been quite prolific in obtaining patents. My personal patent database is a collection of 1,600 fuel-distribution patents and is growing by about 50 new patents every three months. It is noteworthy that about 350 service station patents in the

collection are unassigned and possibly owned by private inventors in need of marketing assistance. ☐

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