

## A LAYMAN'S INTRODUCTION TO PATENTS

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## I. Patents

- (a) Where do patents come from? - Patents are a creature of federal law mandated in the Constitution by the Founding Fathers when they wrote the following at Article 1, Section 8, Clause 8 of the Constitution:

"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."

\*Note: This so-called "Invention Clause" of the Constitution also supported the creation of the U.S. trademark and copyright systems.

- (b) What rights are granted by patents? - Patents are a government-granted right to exclude others from making, using, selling or offering to sell a patented invention. In a real sense, while the government does not like monopolies, it has nevertheless chosen to ignore patent monopolies in order to create an incentive for inventors to invent new products which feed the engine of our national economy.
- (c) Categories of Patentable Subject Matter - Only certain proscribed categories of subject matter are patentable. These categories are: machines, compositions of matter, articles of manufacture, business methods and processes. The categories of un-patentable subject matter are: naked ideas, mathematical formulas, laws of nature, physical phenomena, arrangements of printed matter, scientific principles, things considered to be immoral, perpetual motion machines.
- (d) Types of Patents - There are three types of patents available under U.S. law:
- (i) Utility Patents - Utility patents protect how something functions. The parts of a utility patent include the specification, abstract and claims. The claims are paragraphs which cite the things an inventor is claiming as his/her invention. The claims are the most important part of a patent because they define the metes and bounds of patent coverage.
  - (ii) Design Patents - These protect how something looks. Design patents include only one claim and a set of drawings.

- (iii) Plant Patents - To be patentable, a new plant must be the product of asexual reproduction combined with human invention/intervention; simple cross breeding/hybridizing of two plants will not suffice to render patentability to a plant. However, hybrids are protectable under the Plant Variety Protection Act, which renders patent-like protection to hybrids. Plants which involved genetic engineering are protected as utility, rather than plant patents.
- (e) To File or Not to File?
- (i) Patent Search - The question of whether to file a patent application or not can often be quickly answered by doing a patent search to determine if an invention is even patentable. If the invention is not patentable and provided that no one else has rights to it, it is still possible to sell the invention....although you would do it without patent protection.
  - (ii) Patent Duration and Expense - A U.S. patent lasts 20 years from the date of its filing. A typical application may range from 8K - 20K in costs and attorney's fees to get issued. These costs have to be weighed off against the value/longevity of the invention. If the invention is a fad, or if it might be rapidly superceded by new technology, then perhaps it might not be worth seeking patent protection. However, if the invention has a long and bright future, filing a patent can be hugely advantageous in monopolizing market share. Also, if an inventor wishes to license or have his rights bought out by a larger company, he must have filed patents to sell/license.
- (f) Patent Filing Deadlines
- (i) U.S. Filing Deadlines - U.S. law allows an inventor to publicly disclose, sell, or offer to sell an invention and still file a patent application, as long as the application is filed **within one year** of the public disclosure, sale or offer for sale.
  - (ii) Foreign Filing Deadlines - Non-U.S. countries do not allow a one-year grace period to file a patent application following a public disclosure, sale or offer for sale. In foreign jurisdictions if you do not file a patent prior to a public disclosure, sale or offer for sale,

you will be barred from obtaining foreign patent protection. However, as long as a U.S. patent application was filed prior to any public disclosure, etc. the U.S. filing will suffice to allow foreign patents to be filed **within one year** of the U.S. filing. If an inventor fails to file within the one year period, he will again be barred from obtaining foreign patent protection. The U.S. filing is given full faith and credit by foreign jurisdictions and the U.S. likewise recognizes filings from foreign countries.

- (iii) Foreign Filing Through the Patent Cooperation Treaty (PCT) - The PCT is a treaty which allows all signatory countries (108 and climbing) to follow the same rules for foreign filing and allows the inventor to designate any or all of the signatory countries. The PCT acts as a "holding box" and allows the inventor to wait up to 30 months from the date of the original patent filing to decide to file foreign patents. As noted above, the inventor must file in the PCT within one year of the original patent filing. If the invention looks like a flop by 30 months, the inventor can abandon its PCT application. If the invention is a winner and foreign markets are likely, the inventor can proceed to file patent applications in all the countries designated, by 30 months. Foreign patents are expensive and average about \$20,000 per designated country, so it is best to make sure you have markets overseas before incurring this expense.

(g) Post Filing - The "Patent Pending" Stage

- (I) Patent Pending - This is the period of time in which a patent application is examined by the U.S. Patent Office. During this time, the application is assigned to a patent examiner who examines the initially filed application to determine whether the claims are patentable in view of all prior art known to the examiner. Prior art merely refers to patents, publications, industry knowledge, evidence of sales or any other reference which shows that the same or very similar invention as that being applied for existed prior to the application's filing date. If the examiner can find highly relevant prior art, he/she can reject some or all of the application's patent claims. The applicant is given an opportunity to amend the application to overcome the examiner's objections, or else argue that the prior art cited by the examiner should not serve as a basis for rejection. If the examiner refuses to accept an applicant's arguments

against rejection, the applicant can appeal its case to the Board of Patent Appeals (3-judge panel) in the hopes of overturning the examiner's rejection.

- (ii) **Average Pendency Times** - Depending on the type of invention, the pending times may vary. The following average times reflect the time it takes from filing until receiving a notice of allowance for a U.S. patent, broken down by type of invention: 1) Mechanical or consumer product - 17.7 months; 2) Biotech or Chemical applications - 19.7 months; 3) Electrical applications - 22.2 months; 4) Software or Business method - 24 months.
- (iii) **Producing the Invention During Pendency** - As a consumer, you may have seen the words "patent pending" on a product you have purchased. This is because a company is free to produce an invention during the pendency stage to get a jump on the market even before the patent issues. This allows a company to capitalize on its market share for the invention, early, and also allows a company to watch its competition for the possibility of warding off infringing copies of the invention.
- (iv) **Considerations During Pendency** - During pendency, an inventor or company ( the "patentee") who is prosecuting the patent application may note that competitors have come into the market with similar products. The pendency period allows the patentee to go back and re-assess the strength of its patent position with its attorney. If the patent has been severely limited during prosecution (e.g. the examiner has legitimately rejected the most important claims), then a company must re-assess its ability to retain market share in the future. Alternatively, if the initial patent application has remained strong through prosecution, then it might be time to file new "spin-off" applications which derive from the initial parent application. These "spin-offs" are called continuation or divisional applications and they can allow the patentee to further "massage" the patent claims in order to more closely capture the competitor's products and thereby strengthen a claim for infringement against the competitor, after the patents issue.
- (v) **Publication Date** - The U.S. has, since 2000, required publication of patent applications at 18 months after the filing date. This change in

the law occurred to make the U.S. system similar to foreign patent systems which require 18 month publication. Previous to 2000, U.S. patent applications remained confidential during their entire pendency. The patentee can still keep its patent application confidential if it files a non-publication request at the same time it files the U.S. application. However, the hitch is that if the patentee ever wishes to pursue overseas patents, it must cancel the non-publication request and allow the patent application to be published. Preventing publication can prevent competitors from knowing what coverage the application might contain until the actual issue date occurs.

(h) Your Patent Has Issued - Now What?

- (i) Enforceable Rights - When a patent issues, the patentee is now free to enforce its patent against likely infringers. Patent enforcement is not cheap, as the cost of the average infringement action through trial is 500K. Of course many infringements settle out upon sending the first "cease and desist" letter. Others that go to litigation settle out well before the 500K figure is reached. Very few infringement cases are actually taken to trial. Non-wilful infringers pay the amount of damages caused to a patent owner, while wilful infringers may have to pay more...up to triple the damages caused.
- (ii) Maintenance Fees - Patents must be maintained by paying maintenance fees at 3.5, 7.5 and 11.5 years following the patent issue date. Missing a maintenance fee payment, may cause a patentee to lose all of its patent rights.
- (iii) Improvements on the Original Invention - As an invention matures and improves, it is often advisable to file new patent applications on the improved version of the invention. This enhances the range of protectable/enforceable items for an invention and likewise enhances the strength of the patentee's proprietary position in the marketplace.