

Navigating The Details Behind Patent Law

Proper management of a patent can protect technological innovation and, in some cases, be the difference between a company's growth and its failure.

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In the wind industry, perhaps no example more clearly illustrates a patent's importance than GE's attempts to block fellow manufacturer Mitsubishi Heavy Industries Ltd. (MHI) from producing, selling or licensing wind turbines in the U.S. using technology that GE claims as its own. GE's argument centers around U.S. Patent No. 5,083,039, or more simply, the '039 patent.

While the '039 patent has an active history, it is a good illustration of the commercial importance of a patent. In this case, the '039 patent has been used to restrict at least one company from conducting business in the U.S., and the patent has generated revenue and/or additional business opportunities through licensing agreements for the patent holder. (For more on the history of the '039 patent, see "GE Fails To Stop Mitsubishi In Patent Dispute" on page 5).

While the International Trade Commission ruled in favor of MHI, the matter underscores the importance of intellectual property, which includes patents, trademarks, copyrights and trade secrets.

Such forms of intellectual property can grow, define, identify and/or restrict a business. Moreover, patents can be especially important in a commercial context when utilized properly. But what exactly is a patent? What

is required to obtain a patent? What rights are associated with a patent?

In the U.S., patents are afforded protection in accordance with federal law and are issued by the U.S. Patent Trade Office (USPTO). Patents protect inventions by one or more inventors. Inventions can be something completely new or, more commonly, a useful improvement to an existing technology.

The rights of an issued patent are considered property rights and can be freely assigned and/or licensed at any time. Any assignment of rights should be filed with the USPTO to give proper notice of ownership of rights in a patent. While inventors may represent themselves during patent prosecution (i.e., the process of obtaining a patent), only individuals registered to practice before the USPTO (i.e., patent attorneys or patent agents) are allowed to represent corporate assignees of inventions.

A patent application largely consists of a specification, which includes a detailed description of the invention, one or more claims and often one or more drawings. The claims define the scope of the invention and represent the basis on which a patent is granted. The rights of an issued patent are associated with the claims, while the detailed description and drawings provide support for the claims.

When a patent application is filed and remains pending at the USPTO, no enforceable patent rights exist. However, patent rights may accrue under 35 U.S.C. § 154(d), and a product covered by the claimed invention may include the designation "patent pending." The patent-pending designation puts another party on notice that, if and when a patent is issued by the USPTO, rights may exist to enforce that patent.

Patent rights may be rightfully enforced after the USPTO issues a patent. An issued patent affords the owner the right to exclude others from making, using, selling, offering to sell, importing or licensing an invention for a defined number of years.

However, a patent owner is not required to enforce or use the patent. Accordingly, many patents are never enforced.

A typical patent in the green technology sector takes over three years to clear. The term of a patent is 20 years (as long as applicable maintenance fees are timely paid) from the earliest filing date of the patent application, although an extension to the term of a patent is possible for delays caused by the USPTO. After the patent term expires, the invention becomes part of the public domain.

The rights that come with a patent are meant to strike a balance be-

tween rewarding an inventor for the creativity of an invention and the public's need for this technology to advance society.

Uses of a patent

When used defensively, a well-managed intellectual property (IP) portfolio allows a company to avoid being held hostage by one or more competitors. For example, by obtaining patents covering current core products and future technological innovations of the company, the company can continue to make, use, sell and develop its technology without fearing that one or more competitors may obtain IP protection to block its path.

Moreover, by caching a large portfolio of IP, a company that is sued (or threatened with a lawsuit) for IP infringement will be more likely to own IP that can be used as leverage (e.g., for cross-licensing) during settlement negotiations.

When used offensively, a well-managed IP portfolio can add to both the actual and perceived value of a company. Actual value is commonly acquired in the form of remedies from successful infringement litigation or licensing agreements. Remedies for infringement litigation often include monetary damages and/or injunctive relief either from a judgment (after trial) or, more commonly, from a settlement of the infringement litigation.

The remedies often result in a windfall for the company and/or the weakening of its competitors. Licensing agreements involve transactions in which the IP owner sells a license to another company to use those rights on a limited basis.

The license typically sells for a fixed fee or may involve royalty payments based on use. Again, the IP rights will result in cashflow for the company and/or an advantage over competitors in the marketplace.

Perceived value can also be added to a company by properly managing an IP portfolio. A common example is when a start-up company

is looking for additional capital.

From the perspective of a potential investor, a robust IP portfolio can potentially add tremendous value as an asset of the company. However, the IP portfolio will only have value if it was properly maintained.

Patent requirements

In the U.S., an inventor (or a group of inventors) is entitled to a patent for his or her invention. An inventor is a person who contributes to the conception of at least a portion of the claimed invention. People who simply implement an invention are not considered inventors. All inventors must be listed on the application, and people who are not inventors may not be listed on the application (or the patent may be deemed unenforceable). In the U.S., a corporation cannot be considered an inventor.

Generally, any invention requires some human intervention to receive a patent. Patents are awarded for a utility (i.e., machine, article of manufacture, composition of matter), processes, designs or plants (e.g., a flower, a tree, etc.). The most popular type of patent, by a wide margin, is the utility patent.

The concept of novelty (or anticipation) covers both previous inventions and the present invention. As for other inventions, if a "prior art" reference (dated prior to the date a patent application is filed) discloses each and every element of the present invention, then the present invention will be deemed "anticipated" and denied a patent.

Once the present invention is known or used by others (or if it is published or offered for sale), the inventor must submit a patent application for that invention within one year from the date of disclosure. Failure to do so prevents the inventor from ever being granted a patent on the invention (which is known as the "statutory bar").

"Non-obviousness" is often considered the most difficult requirement to meet, especially given recent judicial and congressional developments.

The non-obviousness test keeps inventions based on trivial combinations of things already known in the field of the invention from being the subject of an issued patent.

Obviousness is measured from the point of view of a person of ordinary skill in the art at the time the invention is made. Non-obviousness is a fact-specific inquiry that involves the combination of various prior-art references, which are compared with the present invention on a claim-by-claim basis.

Recent developments

Patent law in the U.S. is undergoing rapid change – caused, in part, by a backlash from what the public and Congress perceive as a broken patent system. Further change appears to be on the horizon from both the courts and Congress. The changes seem to indicate that acquiring patents and enforcing those patents will be more difficult.

In late 2008, the Court of Appeals for the Federal Circuit, which hears most of the patent-related appeals, held that patents directed to processes must either recite a particular machine or apparatus, or the process must result in a physical transformation. Failing to do so will result in a denial of a patent.

To date, the specific boundaries of the "machine-or-transformation" test established in that case are still being set through subsequent decisions. A decision by the U.S. Supreme Court regarding the case is expected by October.

In 2007, the U.S. Supreme Court attempted to clarify what prior art should be used and how the prior art could be combined when considering whether an invention is obvious. The court ruled that prior art used as references in a rejection do not necessarily have to come from the same area of technology. In addition, the court indicated that hindsight reconstruction is allowed when combining multiple references to render an invention as obvious.

A number of legislative changes af-

fecting the current patent system have been discussed. One proposed change is converting from a first-to-invent system, which is unique to the U.S., to a first-to-file system, which is used by most of the rest of the world. Such a change would simplify many aspects of the worldwide patent system, but it would also result in a complete paradigm shift for U.S. patent practice.

Another proposed change is imposing a requirement for a "working" invention (i.e., the patented invention is actually being used in commerce) prior to allowing the patent owner to enforce the patent.

Miscellaneous items

The U.S. is a signatory to various international treaties, which makes it easier to secure patent protection in a number of countries throughout the world. The wisdom of seeking international protection should be analyzed in light of the company, invention and technology on a per-country basis.

The costs associated with securing patent rights vary widely. For example, the cost of obtaining a single patent in the U.S. typically ranges from \$25,000 to \$100,000, depending on the law firm being used and

the technology covered by the patent application. Once issued, most patents also require maintenance fees to be paid during the life of the patent in order to keep the patent active.

Many governmental fees, including application and maintenance fees, are reduced by half for small entities, which are generally entities having fewer than 500 employees. The cost of securing patent rights in countries outside the U.S. often doubles or even triples the cost, depending on the number of countries and translations required.

A large portion of the costs of acquiring patents must be paid upon the rendering of services (or possibly even prior to rendering the services). A company will need to budget appropriately.

Companies seeking to build a patent portfolio must plan ahead. Early planning can translate into tremendous savings for a company, both in terms of money spent and value realized. Spending just a few thousand dollars to determine a patent strategy with sound policies and procedures will likely avoid several million dollars of mistakes (e.g., lawsuits, missed licensing opportunities, lost funding, etc.) over the life of the company.

The wind industry has experienced significant growth in recent years. Technological innovations have been an important part of this growth and will continue to play a critical role in the continued growth of the industry.

As discussed at the beginning of this article, proper planning, implementation and management of a patent portfolio to protect the technological innovation in this landscape of growth can translate into significant amounts of revenue or, in some cases, the difference between the growth of a company and its failure.

The industry is poised to grow further, with heightened public awareness of the benefits of clean technologies and the administration's agenda to promote such technologies. For both existing and soon-to-be-formed companies in this space, the time to begin assessing their intellectual property is now. **NP**

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