A Guide to Plant Patents for Pennsylvania's Growers

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Introduction

The purpose of this article is to explore the role that plant patents play in the lives of Pennsylvania's greenhouse growers. This role is not insignificant, and with each passing year, a greater number of inventors are seeking patent registration for their new plant varieties. Patents carry with them a strong legal significance that impacts upon the legal rights and responsibilities of greenhouse growers who purchase and sell patented plants. It is important that these legal obligations are well understood by anyone in the greenhouse/nursery business, and to this end, this article will provide an overview of patent law and the legal ramifications associated with patented plants.

The body of this article is divided into five main parts. The first is a general introduction and explanation of what patent law is. The second part provides a detailed analysis of the three-tiered U.S. system to protect plant varieties and contains a thorough analysis of the Plant Protection Act (PPA), the Plant Variety Protection Act (PVPA) and utility patents. The third part focuses on international treaties and conventions aimed at the protection of plant varieties and this section contains a discussion of the UPOV Convention and the TRIPS Agreement. The fourth part discusses the preeminent case law interpreting the legal rights of plant patent holders and establishing patent violation as a strict liability offense. Finally, the fifth part of this article addresses several specific questions posed to the Agricultural Law Center. These questions will be answered by tying together the patent analysis found in the body of the article, and will hopefully clarify the law concerning patent rights for the benefit of Pennsylvania's greenhouse operators.

Patent Law

Black's Law Dictionary defines the word "patent" as "A grant of right to exclude others from making, using or selling one's invention and includes the right to license others to make, use or sell it."[1] A patent is a grant issued by the U.S. government giving the patent owner the right to exclude all others from making, using, or selling the invention within the United States and its territories and possessions during the term of the patent. An enumerated power found in Art. 1, Sec. 8, of the Constitution, a patent may be granted to whomever invents or discovers any new, useful, and non-obvious process, machine, manufacture, composition of matter, or any new and useful improvement of these items.[2]

In its most simple terms, a patent is a contract entered into by an inventor and a government. The government promises to provide the inventor exclusive rights to the enjoyment of his or her invention in return for disclosing the invention to the general public. In fact, one common meaning of the word "patent" is something that is open or obvious.

Disclosure of patented subject matter is encouraged to "catalyze other inventors' activity and make possible additional advances in the art" by allowing them "to think and to write about what is covered by the patent." If disclosure were not encouraged by the government, a discovery could very well be kept a secret forever. However, patents do not protect indefinitely and are usually limited to a certain period of time, such as 20 years in the United States. After expiration of a patent, the public is free to use and enjoy the invention.

Ordinarily, when "an invention is novel, useful, and not obvious, it is patentable if it falls within the patentable categories provided in a particular country." Patentable categories are not static from one country to the next and different countries vary as to which inventions are patentable. International controversy often arises in patent law because some developing countries do not grant patents for certain categories of inventions, such as new medicines or agricultural inventions. Among other reasons, these countries refuse to allow patents in certain categories because of concern that the cost of the patented product or process would be too prohibitive for their citizens and the fear that granting certain patents would pose significant costs to their economies.[3]

Intellectual Property Law

Intellectual property is "intangible property that is a product of human creativity, such as books, films or inventions." Intellectual property laws attempt to provide the protections that normally accompany ownership of tangible property to the "intangible products of mental labor." Exclusivity is the primary protection the law seeks to secure for intellectual property.[4]

Parallel Imports

"Despite the increased attention given to trademark, copyright, patent, and intellectual property rights generally, there are many obstacles still facing those who seek to gain and enforce these rights beyond national borders." International companies face a constant risk of national competition from goods that are intended to be sold in the international markets. Additionally, international companies who export abroad face a constant risk from unauthorized distributors who buy goods in the market of origin and sell them throughout other foreign markets.

"Goods which are bought in a foreign market by an independent third party, and then resold in a domestic market to compete with authorized distributors are known as [parallel imports]." Parallel imports are still allowed by many countries throughout the world despite efforts to increase global intellectual property protection. This results in

companies facing competition from their own goods when they choose to sell their products abroad. Even if a multinational company produces its goods in a country that forbids parallel imports, such as the United States, the potential still exists for unauthorized dealers to buy goods and sell them in other countries in direct competition with authorized foreign dealers.

Foreign bound goods are usually diverted from one country to another due to the potential to profit from different prices. Price discrimination between countries occurs for a couple of reasons. First, "authorized distributors may pay to promote and advertise the patented product in some countries where other authorized dealers do not." Second, "authorized dealers often provide product support and service for their goods." Additionally, unauthorized dealers exploit currency fluctuations by buying goods in one country when its currency is weak and selling the goods in another country where the currency is stronger.[5]

First Sale Doctrine

The first sale doctrine, if applied internationally, would allow parallel imports because the doctrine limits the protection afforded by a patent to the first sale of the goods. Under this doctrine, a patent holder loses the ability to control and collect royalties from his patented goods once they have been initially sold. The patent, in other words, becomes "exhausted" upon the first disposition of the goods. The first sale doctrine allows the purchaser of patented goods to resell the goods without violating any patent laws.

Ordinarily, the first sale doctrine only applies to subsequent domestic sales of patented goods. International application of the first sale doctrine has generally not occurred due to the fear that "importers would re-direct goods from poorer countries to countries where the price is higher, and as a result, economically disadvantaged countries would be denied sufficient supplies of goods and technology that are extremely beneficial." Ultimately, the first sale doctrine reduces the level of international property protection provided to multinational companies because allowing parallel imports limits the monopoly power granted to patent holders.[6]

Patent Infringement

Patent infringement occurs when someone makes, uses, or sells an item covered by the claims of an in-force patent without the patent owner's permission. Upon a finding that patent infringement has occurred, a court can order the infringer to cease all infringing activity. In addition, any associated infringers who profited from the infringement may also be found liable for money damages. Note that only an infringer who had reason to know that a patent was being infringed can be considered a "willful infringer" and held liable for treble damages.

No time limit (statute of limitations) exists in patent law for filing a patent infringement lawsuit, however, monetary damages can only be recovered for infringements committed during the six years prior to filing the lawsuit. For example, if a patent owner sues after

ten years of infringement, the owner cannot recover monetary damages for the first four years of infringement. Despite the fact that there is not a patent infringement statute of limitations, courts will not permit a patent owner to sue for infringement if the owner has waited an unreasonable amount of time to file the lawsuit (this is called the doctrine of "estoppel").[7]

U.S. Three-Tiered System to Protect Plant Varieties

The United States has adopted a three-tiered system to protect plant varieties.[8] The Plant Protection Act (PPA), Plant Variety Protection Act (PVPA), and the system of issuing utility patents all serve to provide the developer of new plant varieties patent-like rights that serve to exclude others from making commercial use of their research and innovativeness without prior permission. This federal statutory framework dates back to 1930.

Plant Protection Act

Since 1930, the United States has been granting plant patents under the Plant Protection Act to any person who first appreciates or discovers a new and distinct plant variety and reproduces it asexually. It is important to note that only asexually reproducing plants can be afforded protection under the PPA. For example, a rose with a unique two-tone color scheme that is reproduced by grafting or cloning the plant tissue can receive protection under the PPA. A plant must have at least one significant novel and distinguishing characteristic that makes it a distinct variety. Statutory authority for the PPA is found in 35 U.S.C. § 161-164 and a brief overview of the relevant provisions is provided below:

PLANT PROTECTION ACT

35 U.S.C. § 161-164
Originally enacted in 1930

Purpose of the Act

This act is meant to remove the existing discrimination between plant developers and industrial inventors. To this end, the act provides "that any person who invents or discovers a new and distinct variety of plant shall be given by patent the exclusive right to propagate that plant by asexual reproduction but not by seeds."

Overview of Relevant Act Provisions

Section 161: Makes general patent law applicable to plant patents and limits this

protection to any distinct and new asexually reproducing plants only.
Section 162: Makes it a requirement that a complete description of the plant variety be submitted before a patent is issued.
Section 163: Explains how the issue of this type of plant patent includes the right to exclude others from asexually reproducing the plant, or any of its parts, and from using, offering for sale, or selling the plant throughout the U.S. It also prohibits anyone from importing any of these plants or their parts into the U.S.
Section 164: Provides that the U.S. Department of Agriculture is responsible for carrying into effect the PPA provisions.

Plant Variety Protection Act

Considering the growing plant industry and the need to afford additional plants patent protection, Congress passed the Plant Variety Protection Act (PVPA) in 1970. This was the first time in which sexually and asexually reproducing plants were both given statutory patent protection. The PVPA is found in 35 U.S.C.S. § 2321 et seq. and is an extension of protection to developers of plants that had been specifically excluded form the PPA of 1930. The PVPA is similar in scope to that of the PPA but specifically provides for sexually reproduced or tuber propagated plant varieties. Under the PVPA, a Certificate of Protection is awarded by the U.S. Department of Agriculture to an owner of a variety after an examination shows that it is new, distinct from other varieties, and genetically uniform and stable through successive generations. The term of protection is 20 years for most crops and 25 years for trees, shrubs, and vines. The owner of a U.S. patented variety has exclusive rights to multiply and market the seed of that variety as well, though the PVPA contains exemptions for saving seed for personal use and for research. The PVPA makes clear, in 35 U.S.C.S. § 2541, which acts constitute infringement on the rights of the owner of the protected plant variety and these are outlined below:

Rights given to PVPA patent owners

PVPA plant patent owners have the exclusive right to:

1. Sell or market the protected variety
2. Import and export the variety into or from the United States
3. Sexually multiply or propagate the plant
4. Use the protected variety to produce any hybrid plant

5. Use unauthorized seed to propagate the variety

Utility Patents

In addition to the Plant Protection Act and the Plant Variety Protection Act, plants can also be the subject of a utility patent. To obtain a utility patent, the plant must be made by humans and must fit the statutory requirements of utility, novelty, and nonobviousness. Utility patents were first issued for plant varieties in the United States in 1980. A utility patent is often more time-consuming and difficult to apply for and receive, but provides protection for both asexually and sexually reproducing plants. A utility patent must claim and describe the specific characteristics of the plant for which protection is sought, and this is often accomplished by depositing seeds or plant tissue in a specified public depository. The granting of a utility patent entitles the patentee to exclude others from making, using, or selling the invention throughout the United States. The only exemption to utility patents is a limited experimental use exception. Under this exception, a plant protected under a utility patent can be infringed if it is reproduced either sexually or asexually. Statutory authority for the issuing of utility patents is found under the broad language of 35 U.S.C.S. §101. This section states that:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent."

It is worth noting that an inventor of a new plant variety may choose to obtain protection under the Plant Protection Act, the Plant Variety Protection Act, or utility patents as long as the requisite statutory requirements are met. For example, a plant variety that falls under PVPA protection is not the exclusive and sole means of protection. The plant may also be subject to protection under 35 U.S.C.S. §101 (utility patents).[9]

International Treaties and Conventions That Protect Plant Varieties

UPOV Convention

While the above section discusses the primary ways in which plants are protected at the national level, there are two important international agreements that confer protection to patent holders outside of the country in which their patent originates. The first of the two international treaties is known as the International Convention for the Protection of New Varieties of Plants (hereinafter, UPOV). UPOV was originally adopted in 1961, and since then, there have been more recent conventions at which the original agreement has been modified and updated. UPOV is important because it provides plant breeders with *sui generis* protection of new plant varieties. Sui generis is Latin for "the same type" and the sui generis protection afforded patent holders by the UPOV means that the member

nations of the UPOV convention have agreed to confer the same patent protections internationally as the patent holder enjoys in the country in which his patent was issued.

To qualify for protection under the 1991 UPOV Convention, a variety must be new, distinct, uniform and stable. In addition, under Article 14 of UPOV, the right-holder has exclusive rights in the "whole plant kingdom." This term includes the propagating material, the harvested material, products directly made from the protected variety, and any plant varieties which are essentially derived from the protected variety. Acts that are prohibited without the right-holder's authorization include the following:

1. Production or reproduction
2. Conditioning for the purpose of propagation
3. Offering for sale
4. Selling or other marketing
5. Exporting
6. Importing
7. Stocking for any of the aforementioned purposes

In short, the 1991 UPOV Convention essentially affords patent-level protection to plant varieties at the international level. However, there are several important exceptions to UPOV, having no counterpart in the patent law, that dilute the significance of the exclusive rights granted in Article 14. For example, under UPOV's "dependent varieties exemption," anyone can use one protected variety to breed "other varieties." If the variety were protected by a utility patent (discussed in previous section), this would not be allowed and would constitute patent infringement. In addition, the nonexistence of the doctrine of equivalents in a sui generis system further weakens the legal rights of plant breeders under UPOV when compared to the rights held by patent holders.

Currently, there are forty UPOV members and these include Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Chile, China, Colombia, the Czech Republic, Denmark, Ecuador, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Japan, Kenya, Mexico, Netherlands, New Zealand, Norway, Paraguay, Poland, Portugal, Republic Moldova, the Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, Trinidad and Tobago, Ukraine, the United Kingdom, the United States and Uruguay.[10]

TRIPS Agreement

The second international agreement that affects the rights of plant patent holders is called the Agreement on Trade-Related Aspects of International Property Rights (hereinafter, TRIPS). TRIPS is part of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) and the North American Free Trade Agreement (NAFTA). Article 27 of TRIPS defines patentable subject matter and allows member states to freely exclude plant varieties from patent protection, despite the Article's mandate that countries provide sui generis protection to plant varieties. However, members of TRIPS may implement local

laws that provide more patent protection than the minimum protections mandated in TRIPS. Article 28 of TRIPS requires member countries to provide patent protection for the exclusive rights of "making, using, offering for sale, selling or importing" a product or process. A patentable product or process can be any invention "in all fields of technology, provided they are new, involve an inventive step and are capable of industrial application." However, under Article 28, "members may exclude from patentability inventions within their territory of the commercial exploitation which is necessary to protect public morals, human, animal or plant life or health or to avoid serious prejudice to the environment."[11]

Case Law Interpreting Statutory Patent Provisions

An inquiry into recent case law serves to explain how the various statutory plant patent provisions operate in a modern-day context. As previously mentioned, it was not until 1980 that utility patents were issued for plants. In *Diamond v. Chakrabarty*, the Supreme Court handed down a landmark 5-4 decision clarifying this exact point.[12] In this case, Chakrabarty, a scientist, developed a genetically engineered bacterium capable of breaking down multiple components of crude oil. Desiring legal protection for his unique bacterium, Chakrabarty filed a patent application which was rejected by the Patent & Trademark Office on the grounds that microorganisms are "products of nature" and, as living things, not patentable subject matter under 35 U.C.S.C. §101. Applying extensive methods of statutory construction, the Supreme Court held that a live human-made microorganism was patentable subject matter under §101 as a "manufacture" or "composition of matter." The Court reasoned that the plain meaning of the statute indicated that Congress intended that the patent laws be given a wide scope. In addition, the legislative history of the patent statute supported such a broad construction, with evidence that Congress intended to include "anything under the sun made by man." Having established this, it was concluded that Chakrabarty's microorganism was a product of human ingenuity having a distinct name, character, and use. More importantly, this decision led to a rapid expansion of U.S. patent laws over living matter.

A recent 2001 Supreme Court decision further clarifies the nature of plant patents. In *J.E.M. Ag Supply, Inc., v. Pioneer Hi-Bred International, Inc.*, Pioneer sued J.E.M. Ag Supply for patent infringement.[13] Pioneer holds 17 patents issued under U.S.C.S. §101 for various types of corn seed. J.E.M. bought patented seeds from Pioneer and then resold the bags without Pioneer authorization. Pioneer claimed that the unauthorized resale of its corn seed violated its patents because only authorized Pioneer sales representatives are allowed to sell the seed. In response, J.E.M. filed a patent invalidity counterclaim, arguing that sexually reproducing plants, such as Pioneer's corn seeds, are not patentable subject matter under 35 U.S.C.S. §101. J.E.M. also alleged that the PPA and PVPA set forth the exclusive statutory means for protecting plant life because they were more specific than the broad and generalized utility patent statute (35 U.S.C.S. §101).

In a 6-2 decision, the Supreme Court validated the ability of the Patent & Trademark Office to continue issuing utility patents over sexually reproducing plants and upheld the Pioneer corn seed patents. The court reasoned that because the actual texts of the PPA

and PVPA did not specifically state that patents could not be issued over seeds, Congress in effect allowed the extension of patent protection to seeds. Therefore, newly developed plant breeds fall within the subject matter of 35 U.S.C.S. §101, and neither the PPA nor the PVPA limit the scope of this coverage. These two cases clarify the point that at any given time, a greenhouse could be in possession of a plant protected by either the Plant Protection Act, the Plant Variety Protection Act, or a plant utility patent.

Additional inquiry into case law serves to illustrate the idea that patent infringement is a strict liability tort. As defined in *Black's Law Dictionary*, a strict liability tort is one in which "liability [can be found] without fault."[14] In *Chiminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, the court held that because patent infringement was a strict liability tort, adequate damages were to be awarded under 35 U.S.C. §284 regardless of intent, culpability, or motivation.[15] The court clarified this point by explaining "A court must award damages adequate to compensate for the infringement. Willfulness only becomes an issue when a plaintiff seeks treble damages." If a person is aware that the activity is one constituting patent infringement, willfulness does become an issue when a court is awarding damages. The court in *Jurgens v. CBK, Inc.*, clarified this by declaring that "Increased damages may also be awarded to a party because of the bad faith [of the patent infringer]….bad faith properly refers to an infringer's failure to meet his affirmative duty to use due care in avoiding infringement of another's patent rights."[16] This case also reinforces the idea that the court has discretion to increase the damages up to three times the amount found or assessed while "exercising its sound discretion under the totality of the circumstances."

In sum, if a court finds that infringement has occurred, every patent infringer can be sued individually and ordered by a court to stop all infringing activity. Such a suit must be filed against each infringer unless multiple infringers are joined in the original lawsuit or are defendants in a class action suit. Any of the infringers who profited from the infringement may also be found liable for money damages. However, only an infringer who knew or had reason to know that a patent was being infringed can be held liable for treble damages as a "willful infringer."

FREQUENTLY ASKED QUESTIONS ABOUT PLANT PATENTS

1. **How do I know if the plants I have purchased are patented?** and **Is it a requirement of the patent holder to mark the patented material?**

   The simplest and most obvious way is to inspect the product for a patent mark. Marking an invention with a patent number after a patent is issued puts potential infringers on notice that any use of the invention may result in an injunction and/or money damages.[17] 35 U.S.C. §287 provides in pertinent part that:

Patentees, and persons making or selling any patented article for or under them may give

notice to the public that the same is patented, either by fixing thereon the word "patent" or abbreviation "pat."

A patent holder may mark the item, but is under no affirmative legal obligation to do so. 35 U.S.C. §287 also addresses the situation in which the plant is not marked. The statute provides that:

In the event of failure to so mark, no damages shall be recovered by the patentee in an action for infringement and continued infringement thereafter, in which event damages may only be recovered for infringement occurring after such notice. Filing an action for infringement shall constitute such notice.

When a patented product is not marked, damages may be collected only from the time the infringer received actual notice (usually a demand letter from the patent owner) or the date the patent infringement suit was first filed, whichever occurred first. Failure to mark a patented item according to 35 U.S.C. §287 merely limits recoverable damages, and a patent holder may still recover for the period after the infringer received notice of the patent or after the filing of the infringement complaint.

2. **If an importer originally receives plants in packaging clearly marked with notification of the patent but does not pass this knowledge on to the greenhouse grower when selling the plants, can the plant purchaser be liable?**

   A greenhouse grower or any other plant purchaser has notice of the patent if the plants come with a marking that satisfies 35 U.S.C. §287. However, absent a marking, the person is a bona fide purchaser of the product if that person does not receive notice of the patent until the grower is charged with infringement or notified of the patent and infringement by the patent holder. There is no affirmative duty of the greenhouse grower to research whether or not a plant is patented.[18]

   It should be emphasized that after a patent infringer has received knowledge of the patent and the infringing activity by the patent holder, the infringer is officially "on notice." In patent infringement cases, courts have consistently held that notice is an "affirmative duty" of the plaintiff. The crucial inquiry to make when determining when notice has been met is "not whether the plaintiff precisely stated to the alleged infringer the patent date or date of issuance, but whether plaintiff has acted affirmatively to notify the alleged infringer of essential information: that plaintiff has a patent on given item including the number of the patent and that the defendant is infringing that patent." Recall that 35 U.S.C. §287 requires specific and actual notice to the accused infringer charging him with infringement of the patent in question.

If an infringement action is later filed, the patent owner will be able to collect damages from the date he or she began properly marking the invention. By contrast, if the invention is NOT MARKED, damages may be collected only from the time the infringer received actual notice from the patent owner or the date on which the patent infringement suit was first filed, whichever occurred first.

Marking becomes particularly relevant when damages are sought for patent infringement. Under 35 U.S.C. §287, "a plaintiff bears the burden of pleading and proving compliance with either the marking requirements or with the specific notice requirements."[19] Failure to mark as required by §287 merely limits recoverable damages; a patent holder may still recover for the period after the infringer received notice of the patent from the patent owner, or after the filing of the infringement complaint.[20]
§287 (b)(2) also states:

No remedies for infringement under §271(g) of this title shall be available with respect to any product in the possession of, or in transit to, the person subject to liability under such section before that person had notice of infringement with respect to that product.

What is notice? The Supreme Court, in *Dunlap v. Schofield*, held that the "clear meaning" of this section is that a patentee cannot recover damages absent marking or notice to the "particular defendants by informing them of his patent *and their infringement of it*."[21] The Court further stated that notice is an "affirmative duty" and something to be done by him. Because the plaintiffs in *Dunlap* offered no proof in support of their allegation that they had notified the defendants of the patent and of defendants' infringement, the Court held that plaintiffs could not recover damages. Because §287 requires "specific and actual notice to the accused infringer charging infringement of the patent in question," it is *not* sufficient that the infringer had actual knowledge of the patent.[22]

3. **What is the protection provided by patents applied for (patent pending) rather than actual patents?**

   Once a patent application has been filed in the U.S. Patent and Trademark Office, the invention has patent pending status.[23] The inventor can then mark the device "patent pending" or "pat. pend." to deter potential competitors from copying it by informing them that it may soon receive a patent. The "patent pending" marks have no immediate legal significance but do place potential infringers on notice that, should a patent ultimately issue, they will not be allowed to make, use, or sell the invention without the patent owner's permission. During the patent pending period, an inventor cannot stop an infringer or collect damages. According to a recent issue of the American Bar Association Journal, "patent pending really serves an implied exclusivity in a particular product invention." Once a patent application is accepted, the Patent & Trademark Office issues a

patent, and a patent holder then has the ability to receive an injunction against infringing activity and/or recover money damages after notice is given.

4. **Is liability placed on the importer rather than the buyer (i.e. greenhouse grower)?**

   As previously discussed, a greenhouse grower has notice of the patent if the plants come with a marking that satisfies §287. What if the infringer had knowledge of the patent for the plant but the plant was not marked? This is not usually sufficient to constitute actual notice, though it could be one factor considered ("good faith") once infringement is established.[24]

   Courts have consistently held that "It is irrelevant whether the defendant (i.e. the person charged with patent infringement) knew of the patent or knew of his own infringement. The correct approach to determining notice under §287 must focus on the action of the patentee, not the knowledge or understanding of the infringer."[25] Therefore, if the importer originally received the plants in packaging marked with notification of the patent but did not pass this knowledge on to the greenhouse grower when selling the plants, the grower is a bona fide purchaser and has yet to receive notice of the patent. (see previous discussion on what constitutes notice under FAQ 1).

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Plant Variety Protection Act of 1970, *7 U.S.C. § 2321, et. seq*.

Plant Patent Act of 1930, *35 U.S.C. § 154, et. seq*.

Patentability of Inventions and Grant of Patents, *35 U.S.C. § 161*.

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[1]Black's Law Dictionary 1125 (6th ed. 1990).

[2]U.S. Const. art. I, § 8, cl. 3.

[3]NOTE: Much of the material contained in this section came from the following source: David Benjamin Snyder, *South Africa's Medicines and Related Substances Control Amendment Act: A Spoonful of Sugar or a Bitter Pill to Swallow?*, 18 Dick. J. Int'l L. 175 (Fall 1999).

[4]NOTE: Much of the material contained in this section came from the following source: David Benjamin Snyder, *South Africa's Medicines and Related Substances Control Amendment Act: A Spoonful of Sugar or a Bitter Pill to Swallow?*, 18 Dick. J. Int'l L. 175 (Fall 1999).

[5]NOTE: Much of the material contained in this section came from the following sources: Hillary A. Kremen, *Note: Caveat Venditor: International Application of the First Sale Doctrine*, 23 Syracuse J. Int'l. L. & Com. 161 (Spring 1997) AND David Benjamin Snyder, *South Africa's Medicines and Related Substances Control Amendment Act: A Spoonful of Sugar or a Bitter Pill to Swallow?*, 18 Dick. J. Int'l L. 175 (Fall 1999).

[6]NOTE: Much of the material contained in this section came from the following source: David Benjamin Snyder, *South Africa's Medicines and Related Substances Control Amendment Act: A Spoonful of Sugar or a Bitter Pill to Swallow?*, 18 Dick. J. Int'l L. 175 (Fall 1999).

[7]NOTE: Much of the material contained in this section came from the following source: ELIAS, STEPHEN & RICHARD STIM, PATENT, COPYRIGHT & TRADEMARK 262-264 (Beth McKenna ed., Nolo Books 4th ed. 2000).

[8]NOTE: Much of the material contained in this section came from the following source: ELIAS, STEPHEN & RICHARD STIM, PATENT, COPYRIGHT & TRADEMARK 299-300 (Beth McKenna ed., Nolo Books 4th ed. 2000).

[9]NOTE: Much of the material contained in this section came from the following source: J. Benjamin Bai, *Symposium: Sustainable Development in Latin America Rainforests and the Role of Law: Commentary: Protecting Plant Varieties Under TRIPS and NAFTA: Should Utility Patents Be Available for Plants?*, 32 Tex. Int'l L.J. 139 (Winter 1997).

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[12]*Diamond v. Chakrabarty*, 447 U.S. 303 (1980).

[13]*J.E.M. Ag Supply v. Pioneer Hi-Bred International, Inc.*, 534 U.S. 124 (2001).

[14]Black's Law Dictionary 1422 (6th ed. 1990).

[15]*Chiuminatta Concrete Concepts, Inc., v. Cardinal Industries, Inc.*, 145 F.3d 1303 (1998).

[16]*Jurgens v. CBK, Ltd.*, 80 F.3d 1566 (Fed. Cir. 1996).

[17]35 U.S.C. § 287 provided guidance in answering the following series of questions. § 287 sets out: a method by which a patent owner may give notice that an invention is patented or that infringement has occurred, the circumstances under which a patent infringer may escape liability for money damages, and a procedure for dealing with imported goods, if their manufacturer may have infringed a process covered by a U.S. patent.

[18]Much of the material contained in this section came from the court opinion of *Amsted Indus. Inc. v. Buckeye Steel Castings Co.*, 24 F.3d 178 (Fed. Cir. 1994).

[19]*Ceeco Machinery Mfg., v. Intercole, Inc.*, 817 F. Supp. 979 (D. Mass 1992).

[20]*Amsted Indus. Inc. v. Buckeye Steel Castings Co.*, 24 F.3d 178 (Fed. Cir. 1994).

[21]*Dunlap v. Schofield*, 152 U.S. 244 (1894).

[22]*Amsted Indus. Inc. v. Buckeye Steel Castings Co.*, 24 F.3d 178 (Fed. Cir. 1994).

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[24]*Jurgens v. CBK, Ltd.* 80 F.2d 1566 (1966).

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