

Articles

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Plant Patents — What is an Uncultivated State?

IP Buzz

Recent Supreme Court cases such as *Prometheus (Mayo Collaborative Services v. Prometheus Laboratories, Inc., 566 U.S. ___, 132 S. Ct. 1289 (2012))* and *Myriad (Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 566 U.S. ___, 132 S. Ct. 1794 (2012))* have brought to the forefront interest in the legal definition of patentable subject matter (35 U.S.C. §101). These cases emphasize the common law prohibition on patenting laws of nature, products of nature and abstract ideas. Although this prohibition is not set out in the utility patent statute, a version of the prohibition does appear in 35 U.S.C. §161 which is the most recent amendment to the U.S. plant patent statute:

Whoever invents or discovers and asexually reproduces any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefor, subject to the conditions and requirements of this title.

The original version of the Plant Patent Act was passed in 1930 making the United States one of the first, if not the first, country to provide protection for new plant varieties developed or discovered by plant breeders. Prior to the passage of this act a breeder might expend decades developing a new variety of apple tree only to have it cloned (i.e., copied) by competitors who had expended no effort in developing the new variety.

One should notice the careful balancing involved in crafting this statute. First, it is limited to asexual (cloning) reproduction of the new variety because Congress did not intend to interfere with the process of breeding new improved varieties through sexual reproduction (i.e., by cross-pollinating plants and growing the seed). Second, Congress was avoiding the potato lobby by exempting tuber propagated plants. Potatoes are the only tuber propagated plants of commercial significance in the United States. As an aside, the United States Patent Office construes the term “tuber” along strict botanical lines. Thus, sweet potatoes are eligible for protection because botanically a sweet potato is a root and not a tuber. Third, by limiting protection to plants not found in an “uncultivated state” Congress was codifying the common law provisions against patenting products of nature. Because many important new plant varieties, particularly new apple varieties, are spontaneously occurring mutants or sports found on orchard trees, mutant varieties found in the cultivated state (for example in orchards) are patentable under this statute.

In re Beineke involves an attempt to obtain a plant patent for improved varieties of oak trees. Inventor Beineke is the proprietor of a forestry company which holds plant patents on a number of tree varieties important in forestry. When a forest is replanted, there is often a desire to replant with seedlings that will produce superior trees. In the case at hand, Inventor Beineke discovered two white oak trees, each more than 100 years old, which showed superior properties growing in some one's front yard. He took acorns from the trees and grew them. Whereupon he discovered that the resulting saplings also showed the same superior properties. He demonstrated that both the parent trees and the seedlings could be asexually reproduced so he applied for two plant patents, one for each tree and its progeny.

The Patent Examiner rejected the applications because the oak trees had been discovered in an uncultivated state. Beineke argued that the land was cultivated at the time of discovery (basically, they were growing in the front lawn which was clearly been cultivated). The Examiner issued a final rejection arguing that “cultivation” meant that the trees themselves had to be cultivated not merely that the lawn was cultivated. A divided Board of Patent Appeals affirmed the rejection finding that the trees existed long before a house was built at the site and that since there was no evidence showing specific efforts made to cultivate the trees, they were clearly in an uncultivated state.

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The dispute did not end there. Inventor Beinke filed a request for continued examination and submitted declarations to demonstrate that the trees were growing in a cultivated lawn and, thus, were not in an uncultivated state. The Examiner again rejected the applications and these rejections were appealed to the Board which again sustained the rejections. These rejections were then appealed to the Federal Circuit resulting in the case cited above. The court reviewed the statutory history of the Plant Patent Act indicating that any statute must be interpreted in the light of the state of the law at the time the legislation was enacted. The court concluded that at the time of the 1930 Act plants, even artificially bred plant varieties were considered products of nature and were, therefore, not patentable. This view even extended to attempts to secure utility patent protection for new natural products produced from plants.

However, Congress in 1930 deliberately altered the status quo of the law by declaring that under certain conditions, plant varieties could receive patent protection. The following language was added to the statute defining a utility patent grant: *“who has invented or discovered and asexually reproduced any distinct variety of plant, other than a tuber-propagated plant. . .”* Congress determined that plant breeding was an exercise of inventive faculty so that the resulting plants were not a product of nature. Legislative history indicated that one of the primary purposes of the bill was to stimulate plant breeding by providing a financial incentive. The legislative history also shows that Congress specifically rejected provisions that would have given protection to found plants. At the time of the legislation the terminology of “new and distinctive variety” meant that the plants necessarily fell into one of three classes: sports, mutants and hybrids. Because these new entities cannot generally be reproduced by seed, they must be reproduced asexually. The legislative history shows that Congress distinguished these plant varieties from minerals and other products of nature: *“a plant discovery resulting from cultivation is unique, isolated, and is not repeated by nature, nor can it be reproduced by nature unaided by man.”* Thus, legislative history demonstrated that the 1930 statute was not intended to include plants discovered by chance.

When the statute was amended in 1954, the plant language was removed from the usual utility patent grant and placed into a new section of the law. At that time language was added to more fully define *“distinct and new variety of plant”*—namely *“including cultivated sports, mutants, hybrids and newly found seedlings.”* But this apparent expansion of the patentable categories was balanced by a newly added restriction against patenting: *“a plant found in an uncultivated state.”* The court found that the new language was added to overrule the Patent Office Board of Appeals decision in *Ex Parte Foster* (90 U.S.P.Q 16 (1951)) where the Board rejected a plant patent for a newly found seedling discovered by a plant breeder in a cultivated garden. Thus, Congress extended Plant Patent protection to found plants only if they were somehow the result of human activity such as in cultivation of the land. This view concerning patentability resulting from human activity has since been extended to allow utility patents for plants so long as they result from human activity and meet the other utility patent requirements.

The court concluded that the original oak trees discovered by Beinke did not meet the requirements of either the original 1930 Act (which did not include found plants) or the 1954 Act (because the adult oak trees were not newly found seedlings). Presumably, the underlying thread of reasoning is that the trees did not result from human intervention and thus were clearly products of nature. Hence, the court did not have to decide the level of cultivation necessary to remove a region from the “uncultivated state.” *“The Board correctly determined that the mature oak trees found by Beinke in the front yard of a home were not entitled to plant patent protection under section 161.”* Of course, this leaves open the question of whether Beinke’s cultivated seedlings would have been eligible for patenting. Stay tuned.