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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte AMY IEZZONI

Appeal 2020-001008
Application 15/330,734
Technology Center 1600

Before JEFFREY N. FREDMAN, RACHEL H. TOWNSEND, and
JAMIE T. WISZ, *Administrative Patent Judges*.

FREDMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal^{1,2} under 35 U.S.C. § 134 involving a plant patent application claiming a cherry tree. The Examiner has rejected the claim under 35 U.S.C. § 161 on the basis that the claimed cherry tree was found in an uncultivated state. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the Real Party in Interest as the Board of Trustees of Michigan State University (*see* Appeal Br. 3).

² We have considered and refer to the Specification of Oct. 31, 2016 (“Spec.”); Final Action of July 23, 2018 (“Final Act.”); Appeal Brief of Apr. 22, 2019 (“Appeal Br.”); Examiner’s Answer of Sept. 20, 2019 (“Ans.”); and Reply Brief of Nov. 19, 2019 (“Reply Br.”).

Statement of the Case

Background

“In the field of plant genetics, researchers conduct an extensive and continuing plant-breeding program including the organization and asexual reproduction of orchard trees, and of which plums, peaches, nectarines, apricots, cherries, almonds and interspecifics are exemplary” (Spec. 1:14–17). “The present invention relates to a new cherry tree variety” (Spec. 1:4).

The Claims

Claim 1 is on appeal and reads as follows:

1. A new and distinct variety of cherry tree substantially as described and illustrated herein.

The Issue

The Examiner rejected claim 1 under 35 U.S.C. § 161 because the plant was found in an uncultivated state (Ans. 3).

The Examiner finds the Specification teaches “that the claimed plant was obtained from ‘open-pollinated *Prunus* seeds’ that were collected ‘in hillsides surrounding Budapest, Hungary’” (Ans. 3, citing Spec. 1:27–28). The Examiner finds “[t]he claimed plant originated from seeds collected in nature . . . (i.e. an uncultivated area)” (*id.*). The Examiner finds “Appellant must provide unambiguous evidence that the claimed plant is different from the varieties of seeds that were originally collected” (*id.*).

Appellant asserts the “‘Lake’ rootstock results from fourteen years of cultivation and selection for desirable and distinct traits. The first phase of selection over years 1 – 9 was to produce plants showing desirable

characteristics for (1) plant health, (2) rooting capability, and (3) disease resistance” (Appeal Br. 8). Appellant asserts the

plants selected from this phase were then subject to a second phase of selection spanning four years (i.e. years 9-12), where the desired traits were (1) grafting ability, evaluated by successful grafting with ‘Hedelfingen’ and ‘Bing’ scions; (2) precocity (early flowering and fruiting beginning the second year after planting); and (3) reduced tree stature measured as trunk cross-sectional area.

(*id.*). Appellant asserts “[a]fter the cultivation and development process that rejected certain plants and continued with other plants yielded a desirable variety, ‘Lake’ was further asexually reproduced and test trees were planted in a cultivated plot for the remaining period of time (years 12-14)” (*id.* at 10).

The issue with respect to this rejection is: Does a preponderance of the evidence of record support the Examiner’s conclusion that the cherry tree of claim 1 fails to comply with the “cultivated” requirement of 35 U.S.C. § 161?

Findings of Fact

1. The Specification teaches: “Open-pollinated *Prunus* seeds were collected in hillsides surrounding Budapest, Hungary and the resulting seedlings were planted in Clarksville, Michigan” (Spec. 1:27–28).

2. The Specification teaches: “Seedlings were selected as candidate rootstocks based on overall plant growth, virus tolerance, and rooting capabilities” (Spec. 1:28–30).

3. The Specification teaches: “Candidate rootstocks were grafted with ‘Hedelfingen’ and ‘Bing’ scions and planted in Clarksville, Michigan.

Further rootstock selection occurred on the basis of scion qualities as well as rootstock virus tolerance and rooting capabilities” (Spec. 1:30 to 2:1).

4. The Specification teaches the “resulting candidate rootstocks were asexually reproduced through conventional softwood cutting methods, and grafted and planted with ‘Bing’ scion. The ‘Bing’ trees grafted on the ‘Cass’ rootstock were planted in Prosser, Washington” (Spec. 2:1–4).

5. The Specification teaches the “candidate rootstocks were evaluated for scion trunk cross-sectional area (TCSA), tree height, growth habit, flowers per node, crop yield, cropping efficiency, and fruit weight, among other traits. Cherry tree ‘Lake’ was selected from this trial” (Spec. 2:4–7).

Principles of Law

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.

35 U.S.C. § 161.

“[T]o be patentable, a new and distinct invention (including a new and distinct plant) must be the product or result of man and his inventive efforts.” *In re Beineke*, 690 F.3d 1344, 1353 (Fed. Cir. 2012). “[B]y virtue of the 1954 amendments, Congress extended the plant patent statutes to cover newly found seedlings, but only if they were somehow the result of human activity (i.e., the cultivation of the land on which they originated), and not the chance find of a plant explorer in the wild.” *Id.* at 1354.

Analysis

The Plant Patent statute, written prior to the genetics revolution of the late 1950s and 1960s, does not specifically address whether cultivated plants could be genetically identical to a naturally occurring plant and be patentable or whether the cultivated plant is required to be genetically different from naturally occurring, i.e., uncultivated, plants to be patentable.³ Instead, the statute requires for patentability a “distinct and new variety of plant” but excludes from patentability those “found in an uncultivated state.” *See* 35 U.S.C. § 161.

The question arises, therefore, whether cultivation and selection of a plant with desired characteristics is sufficient for patentability of that selected cultivated plant under the statute. We conclude it is. As our reviewing court in *Beineke* explains:

as initially drafted, S. 4015 would have permitted patents on “any distinct and *newly found variety of plant.*” S. 4015, 71st Cong. § 1 (as introduced by Senate, Mar. 24, 1930) (emphasis added). This provision, however, was stricken from the bill to “eliminate[] from the scope of the bill those wild varieties discovered by the plant explorer or other person who has in no way engaged in either plant cultivation or care and *who has in no other way facilitated nature in the creation of a new and desirable variety.*” S. Rep. No. 71–315, at 7 (emphasis added).

³ We note that because the original *Prunus* source for the Cherry tree was a seed, ordinarily the progeny of two different parents, the ‘Lake’ tree is not likely to be a genetic replica of the uncultivated trees growing on the hills in Budapest. This situation therefore differs from *In re Roslin Inst.*, 750 F.3d 1333, 1337 (Fed. Cir. 2014) where “Dolly herself is an exact genetic replica of another sheep and does not possess ‘markedly different characteristics from any [farm animals] found in nature’” (*citing Diamond v. Chakrabarty*, 447 U.S. 303, 310 (1980)).

Beineke, 690 F.3d at 1351. The court also noted that “*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. . . . It is obvious that nature originally creates plants but it can not be denied that man often controls and directs the natural processes and produces a desired result.*” *Id.* (quoting S. Rep. No. 71–315, at 6–7).

Thus, according to the Senate report cited by *Beineke*, there is a distinction between a plant explorer, who simply discovers a wild plant, and a person who facilitates nature by cultivating the plant to obtain a new and desirable variety. *See Beineke*, 690 F.3d at 1351. The Court concluded:

In short, the provisions of the original 1930 Act, incorporated in the present plant patent statute, provided patent protection to only those plants (e.g., sports, mutants, and hybrids) that were created as a result of plant breeding or other agricultural and horticultural efforts *and* that were created by the inventor, that is, the one applying for the patent.

Id. at 1352 (underlining added). Similarly, *Chakrabarty* also referenced the legislative history of the Plant Patent Act, stating “the work of the plant breeder ‘in aid of nature’ was patentable invention.” *Chakrabarty*, 447 U.S. at 312.

In *Ex parte Beineke*, Appeal No. 2007-3882, 2008 WL 2942147 (BPAI July 30, 2008), the Board decision affirmed by *Beineke*, the Board found there was no evidence that the white oak tree had been subjected to any cultivation, noting there was no description of “any specific efforts made by anyone to cultivate AFTO-3 (e.g., watering, staking, fertilizing, or pruning.)” *Id.* at *2. Thus, the evidence at issue in *Ex parte Beineke* supported a finding that the white oak tree was found in an uncultivated

state, and that no cultivation was performed prior to, or after, the discovery of the tree.

Unlike the situation in *Beineke*, we find that while the original seeds found in Budapest were uncultivated, the selected ‘Lake’ variety represents one of the second generation cultivated trees (FF 5). The trees grown in the second round of selection were asexually reproduced from the trees planted in orchards in Clarksville, Michigan (FF 3–4). There is no dispute that these asexually reproduced trees were generated from the first generation of trees previously undergoing cultivation and selection as rootstock (FF 2). There is also no dispute that the ‘Lake’ variety was selected for specific characteristics. (*See Spec.at 3.*)

We therefore find that the tree of the instant claim satisfies the cultivation requirement consistent with the legislative history of the Plant Patent Act because the inventor controlled and directed natural processes to produce a desired result in cultivated plants.⁴

That is, the inventor planted and cultivated the *Prunus* seeds, screened the resulting plants for health, rooting capability and disease resistance (FF 2), and then selected from these cultivated Cherry trees those with desirable qualities (FF 3). The inventor asexually reproduced these trees, grafted them with the ‘Bing’ scion, planted and cultivated these trees and evaluated them for a number of different properties including tree height, crop yield, efficiency, and fruit weight (FF 5). The claimed tree ‘Lake’ was then

⁴ We do not at this time address situations with less evidence for cultivation and novelty, such as plants subjected to limited or no selection and cultivation processes by the plant breeder.

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selected (FF 5). We conclude that the evidence shows the work of a plant breeder in aid of nature, and that this work resulted in a patentable invention.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1	161	Plant Patent		1

REVERSED