

# United States Court of Appeals for the Federal Circuit

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(Interference No. 105,728)

**PIONEER HI-BRED INTERNATIONAL, INC.,**  
*Appellant,*

v.

**MONSANTO TECHNOLOGY LLC,**  
*Appellee.*

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2011-1285

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Appeal from the United States Patent and Trademark  
Office, Board of Patent Appeals and Interferences.

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Decided: February 28, 2012

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JOSEPH LUCCI, Woodcock Washburn, LLP, of Philadelphia, Pennsylvania, argued for appellant. With him on the brief were JOHN P. DONOHUE, JR., S. MAURICE VALLA and JOHN F. MURPHY.

ROBERT E. HANSON, SNR Denton US LLP, of Dallas, Texas, argued for appellee. With him on the brief were STEVEN G. SPEARS, McDermott Will & Emery LLP, of Houston, Texas, and LAWRENCE M. LAVIN, JR., Monsanto Technology LLC, of St. Louis, Missouri.

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Before PROST, CLEVINGER, and REYNA, *Circuit Judges*.  
CLEVINGER, *Circuit Judge*.

In November 2009 the Board of Patent Appeals and Interferences (“the Board”) declared an interference between the claims of a patent belonging to appellant Pioneer Hi-Bred International, Inc. (“Pioneer”) and those of a pending application owned by appellee Monsanto Technology LLC (“Monsanto”). After the Board concluded that Monsanto was not time-barred under 35 U.S.C. § 135(b)(1) and that Monsanto’s claims were entitled to seniority, Pioneer stipulated to judgment against it and the Board canceled Pioneer’s claims. *Pioneer Hi-Bred Int’l, Inc. v. Monsanto Tech. LLC*, Patent Interf. No. 105,728, 2010 WL 5127421 (B.P.A.I. Dec. 13, 2010). Because the Board’s conclusions were correct, we affirm its rulings.

I

A

The claims at issue concern transgenic corn, specifically the *Zea mays* plant. Pioneer’s claims are in U.S. Patent No. 6,258,999 (issued July 10, 2001) (“the Pioneer ’999 patent”). Independent claim 1 reads:

1. A fertile transgenic *Zea mays* plant comprised of stably incorporated foreign DNA, wherein said foreign DNA consists of DNA that is not from a corn plant and that is not comprised of a T-DNA border.

Pioneer ’999 patent cl.1. On its face the Pioneer ’999 patent claims a date of invention of no later than June 10, 1988, which is the filing date of U.S. Patent Application No. 07/205,155, J.A. 155 (“the Pioneer ’155 application”).

Monsanto's interfering claims are in U.S. Patent Application No. 11/151,700 (filed June 13, 2005) ("the Monsanto '700 application"). Independent claim 1, as amended during prosecution, reads:

1. A fertile transgenic *Zea mays* plant containing heterologous DNA which is heritable, wherein said heterologous DNA confers a beneficial trait to the plant, wherein said beneficial trait is selected from the group consisting of pest resistance, stress tolerance, drought resistance, disease resistance, and the ability to produce a chemical, wherein the plant expresses a selectable marker gene, and wherein the plant is from a subsequent generation of a plant that is re-generated from a selected transformed cell.

'700 App. Claims, *Monsanto Tech. LLC v. Pioneer Hi-Bred Int'l, Inc.*, Patent Interf. No. 105,728 [hereinafter *Monsanto*] (B.P.A.I. Dec. 3, 2009), Dkt. #12; *see also* Monsanto '700 App., U.S. Patent Pub. No. 2006-0010520 (claims as originally filed). The Monsanto '700 application claims invention no later than January 22, 1990, which is the filing date of U.S. Patent Application No. 07/467,983, J.A. 251 ("the Monsanto '983 application").

## B

As already stated, the Board declared this interference in November 2009. It listed all claims of the Pioneer '999 patent and twelve claims of the Monsanto '700 application as involved. And it initially assigned seniority according to the priority assertions in the parties' applications. Thus, the Board designated Pioneer as the senior party. *DeKalb Genetics Corp. v. Pioneer Hi-Bred Int'l*,

Patent Interf. No. 105,728 (B.P.A.I. Nov. 18, 2009), Dkt. #1.<sup>1</sup>

A few months later, Pioneer moved for judgment. Citing section 135(b) of the Patent Act, Pioneer argued that the claims in the Monsanto '700 application were time-barred. Section 135(b) precludes any applicant from presenting a claim already made in an issued patent at any time after the "critical date," which is the date one year after the patent in question issued. Pioneer pointed out that the Monsanto '700 application was filed after the critical date and sought judgment on that basis. The Board disagreed. Denying the motion, it held claim 1 of the Monsanto '700 application (along with its dependents) permissible as relating back to claims in the pre-critical date Monsanto '983 application. *Monsanto*, slip op. (B.P.A.I. Apr. 22, 2010), Dkt. #67 [hereinafter *Section 135 Opinion*].

Shortly thereafter, Monsanto filed a motion of its own. It asked the Board to deny the Pioneer '999 patent the benefit of the Pioneer '155 application's filing date, arguing that the earlier application did not contain sufficient disclosure to support interference priority for the later claims. The Board agreed, and denied Pioneer its early priority date. *Monsanto*, slip op. (B.P.A.I. Sept. 29, 2010), Dkt. #122 [hereinafter *Interference Priority Opinion*]. This had the effect of making Monsanto the senior party, after which, as mentioned, Pioneer stipulated to judgment in Monsanto's favor.

Following the entry of judgment and cancelation of its claims, Pioneer filed this appeal. This court has jurisdic-

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<sup>1</sup> At the time the Board declared the interference, PTO records indicated that the Monsanto '700 application was owned by DeKalb Genetics Corporation.

tion over appeals from final decisions of the Board in patent interferences. 28 U.S.C. § 1295(a)(4)(A) (2010).

## II

This court applies the standards of the Administrative Procedure Act in reviewing decisions of the Board. *Dickinson v. Zurko*, 527 U.S. 150, 152 (1999). As such, a Board action will be set aside if arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, and factual findings unsupported by substantial evidence will be set aside. *Id.*; *Falkner v. Inglis*, 448 F.3d 1357, 1363 (Fed. Cir. 2006).

## III

Pioneer argues that both the *Section 135 Opinion* and the *Interference Priority Opinion* were wrong. We address these arguments in order.

### A

Patent Act section 135 governs interferences. Subsection (b)(1) sets forth a timeliness requirement:

A claim which is the same as, or for the same or substantially the same subject matter as, a claim of an issued patent may not be made in any application unless such a claim is made prior to one year from the date on which the patent was granted.

35 U.S.C. § 135(b)(1) (2010).

The Monsanto '700 application was filed more than a year after the Pioneer '999 patent issued. Nevertheless, the Board permitted the Monsanto claims, holding them permissible under the “such a claim” provision of the statute. *Sec. 135 Op.* 7–9.

The Board acknowledged that the Monsanto '983 application had no single claim containing all limitations later appearing in the Monsanto '700 claim 1. It held, however, that this was no obstacle to Monsanto's case. The Board reasoned that section 135(b)(1) permits multiple claims in the pre-critical date application, operating together, to provide a basis for showing that the later claim was actually made before the one-year bar in section 135(b)(1). It concluded that, if the pre-critical date aggregated claims were "sufficiently congruent" with the later claims to demonstrate an intent by Monsanto to claim the subject matter in question before the critical date, then the time bar of section 135(b)(1) would be lifted. *Id.* at 9–10. As authority, the Board cited two opinions of the Court of Claims and Patent Appeals, *Thompson v. Hamilton*, 152 F.2d 994 (CCPA 1946), and *Corbett v. Chisholm*, 568 F.2d 759 (CCPA 1977).

The Board analyzed Monsanto's claims as follows:

Monsanto '700 Claim 1	Claims from Prior Monsanto '983 Application
1. A fertile transgenic <i>Zea mays</i> plant containing heterologous DNA which is heritable,	1. A fertile transgenic <i>Zea mays</i> plant containing heterologous DNA which is heritable.
wherein said heterologous DNA confers a beneficial trait to the plant,	...
wherein said beneficial trait is selected from the group consisting of pest resistance, stress tolerance, drought resistance, disease resistance, and the ability to produce a chemical,	7. The plant of Claim 1 wherein said heterologous DNA encodes a beneficial trait to the plant.
wherein the plant expresses a selectable marker gene,	8. The plant of Claim 7 wherein said beneficial trait is selected from the group consisting essentially of promoting increased crop food value, higher yield, reduced production cost, pest resistance, stress tolerance, drought resistance, disease resistance, and the ability to produce a chemical.
and wherein the plant is from a subsequent generation of a plant that is regenerated from a selected transformed cell.	9. The plant of Claim 1 which expresses a selectable marker gene.
	...
	13. The seed produced by the plant of Claim 1 which inherit the heterologous DNA.
	...
	16. The R2 and higher generations of the plant of Claim 1.
	...
	18. The plant of Claim 1 which is produced from transgenic seed produced from a fertile transgenic plant using cross-breeding techniques.
	...

*See Sec. 135 Op. 7–8.* The Board held that, viewing claims 1, 7–9, 13, 16, and 18 of the pre-critical date application together, they were “sufficiently congruent” with the claims later presented in Monsanto’s ’700 application to lift section 135(b)(1)’s time bar.

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Pioneer argues that the Board erred in relying on multiple pre-critical date claims to support Monsanto’s later claim.

We disagree that there was any error in this case and affirm the Board’s interpretation of section 135(b)(1).

*Thompson* and *Corbett* demonstrate that that section's prior claim requirement can be satisfied by multiple prior claims. Indeed, *Thompson* expressly contemplated that circumstance:

[T]he contention of counsel for appellant [Mr. Thompson], as we understand it, is, in effect, that the indefinite article "a" embraced in the rule [precursor to section 135(b)(1)] should be interpreted as meaning "one."

It is obvious that the construction for which appellant contends would create an anomalous situation in cases such as that under consideration.

152 F.2d at 996. The *Thompson* opinion does not expressly reproduce the claims that were at issue in that appeal, so it is not possible to reconstruct every detail of the CCPA's claim interpretation. But its main holding is clear: multiple pre-critical date claims, considered together, can provide the foundation necessary for post-critical date claims to be held timely. The CCPA wrote:

An examination of these five claims [pre-critical date claims by Mr. Hamilton] shows that each feature of the counts [of the subsequent interference] had been covered by claim. Claims 1 and 2 are more specific than count 1 in that they include the bulged feature above mentioned. Claim 3 was sufficiently broad to read on the Thompson structure and it embodied the essential features in issue. Claim 4, except possibly for the stated method of assembly of the parts, was also sufficiently broad to read on the Thompson disclosure.

*Id.* at 996–97 (quoting the Board of Interference Examiners).

We read this as follows: Hamilton claims 1 and 2 were narrower than the post-critical date claim, and so did not claim its full scope but recited all required limitations.<sup>2</sup> Claim 3 was broader than the later claim and addressed its “essential” features, although perhaps did not recite every required limitation. And claim 4 was styled differently but addressed largely the same subject matter as the other claims. *Thompson* therefore stands for the proposition that, for purposes of section 135(b)(1), the Board may in some cases find the required pre-critical date claiming by analyzing multiple claims together.

2

Having confirmed that there is no general prohibition against analyzing multiple pre-critical date claims together, we next must determine whether the Board erred in holding that Monsanto’s pre-critical date claims are sufficient to permit the later claim to overcome its lack of timeliness. Citing *Corbett*, Pioneer contends that the various claims of the Monsanto ’983 application are too disparate, addressing inventions so different that the Board committed legal error in holding them “sufficiently congruent.”

In analyzing Monsanto’s claims, the Board applied a test gleaned from *Thompson* and *Corbett*. For each pre-critical date claim, the Board checked to see if the claim was directed to the “same invention” as the others, or whether it was addressing a “related” invention. *Sec. 135*

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<sup>2</sup> In *Thompson*, Mr. Hamilton provoked the interference by adding to his pending application claim language identical to the issued Thompson patent. As a result the language of the count was identical to that of Mr. Hamilton’s post-critical date claim. 152 F.2d at 995.

*Op.* 8–9. The Board concluded that each of the pre-critical date claims analyzed was directed to the same essential invention, and that collectively the pre-critical date claims did not differ materially from the post-critical date claim 1 in the Monsanto ’700 application. *Id.* at 9–10; *see also Adair v. Carter*, No. 2011-1212, 2012 WL 372115, at \*5 (Fed. Cir. Feb. 7, 2012) (confirming that for purposes of overcoming a § 135(b)(1) bar the proper test is whether there are material differences between the pre- and post-critical date claims).

Pioneer appeals two of the Board’s conclusions. First, the Board concluded that pre-critical date claim 9 of the Monsanto ’983 application was directed to the same invention as claims 7 and 8 of that application. Pioneer claims this was error because while claim 8 inherits all limitations of both claims 1 and 7, claim 9 inherits only the limitations of claim 1. From this, Pioneer contends that claim 9 is not directed to the “same invention” as 7 and 8.

The Board’s interpretation and comparison of the claims here was a legal inquiry, reviewed without deference. *See In re Roemer*, 258 F.3d 1303, 1307 (Fed. Cir. 2001) (holding interference claim construction a legal matter); *cf. Sun Pharm. Indus., Ltd. v. Eli Lilly & Co.*, 611 F.3d 1381, 1384–85 (Fed. Cir. 2010) (holding, in the double-patenting context, claim comparison a legal matter). We see no error in the Board’s analysis of claim 9. As already discussed, there is no error *per se* in considering multiple claims of a pre-critical date application together for section 135 purposes. To hold, as Pioneer proposes, that such consideration is limited to claims in a dependency relationship would undermine our precedent. A dependent claim inherits all limitations of the parent, so considering a parent and its dependent together is not practically different from considering the dependent only.

The rule Pioneer proposes would boil down to a restriction against exactly the kind of multiple-claim analysis that *Thompson* approved. In order for *Thompson* to stand for anything, it must permit the Board to analyze together two non-dependent claims.

Nor do we see any error in the Board's conclusion that pre-critical date claim 9 is directed to the same invention as claims 7 and 8. As the Board noted, all three of these depend from claim 1. Claims 7 and 8 add limitations concerning the beneficial traits coded for by the incorporated heterologous DNA; claim 9 adds a limitation that the claimed plant "expresses a selectable marker gene." As the Board noted, "nothing in claim 9 indicates a choice away from the limitations of claim 7 or claim 8." *Sec. 135 Op. 8*. Like the Board, we conclude that the pre-critical date claims here demonstrate intent to claim an invention reflecting both the limitations of claims 7 and 8 and of claim 9. *Corbett* expressly stated that if the pre-critical date claims failed to "manifest a unitary scheme or attempt to secure a property right in the subject matter" of the later claim, they could not provide the foundation required by section 135(b)(1). 568 F.2d at 766–67. Like the Board, we embrace the positive corollary: pre-critical date claims provide the support necessary under this section where the early claims, taken together, demonstrate that the pre-critical date claims do not differ materially from the post-critical date claims.

Pioneer also appeals the Board's analysis of pre-critical date claims 13, 16, and 18. As the Board recognized, claims 13 and 16 of the Monsanto '983 application do not depend from claim 1. They are, however, related to that claim. Claim 13 claims, "The seed produced by the plant of Claim 1 which inherit the heterologous DNA." And claim 16 claims, "The R2 and higher generations of the plant of claim 1." Claim 18 does depend from claim 1,

and claims, “The plant of claim 1 which is produced from transgenic seed produced from a fertile transgenic plant using cross-breeding techniques.”

Pioneer argued that these claims, separately or collectively, could not support the final limitation of Monsanto ’700 claim 1: “and wherein the plant is from a subsequent generation of a plant that is regenerated from a selected transformed cell.” The Board disagreed, and so do we.

This final limitation restricts the post-critical date claim to all generations of the subject plant beyond the initial progenitor. In technical parlance (undisputed by the parties), it claims the “R1” and higher generations. The claim does not cover “R0,” the initial plant. The Board held that Monsanto ’983 claims 13, 16, and 18 demonstrate a similar scope of coverage. Claim 16 specifically reaches the “R2 and higher generations.” And while there is no claim expressly reciting an “R1” generation, Monsanto ’983 claim 13 addresses the seed necessary to give rise to that generation and claim 18 limits the plant of Monsanto ’983 claim 1 so that it is itself an “R1” plant. We disagree with Pioneer’s contention that pre-critical date claims 13, 16, and 18 are directed to inventions outside of what was later claimed by Monsanto ’700 claim 1. Together they include all limitations of the later claim’s final limitation. And although claims 13 and 18 differ slightly in formation from pre-critical date claim 1, the change is not material for purposes of section 135(b)(1). To the contrary, viewed together claims 13, 16, and 18 demonstrate the intent to cover the later-claimed subject matter required by *Corbett*. The linguistic differences between the early claims and the later one are in this case immaterial.

For these reasons we agree with the Board that the Monsanto ’983 claims provided a sufficient basis to over-

come the time bar of section 135(b)(1). The *Section 135 Opinion* is thus affirmed.

## B

Pioneer next argues that the Board erred in denying its interference priority claim. On Monsanto's motion, the Board held that the Pioneer '999 patent could not benefit from the filing date of the Pioneer '155 application. This was because the Board was unable to find in that application any enabled disclosure of an embodiment satisfying Pioneer '999 claim 1's requirement of "foreign DNA . . . that is not comprised of a T-DNA border." *Interf. Priority Op.* at 7.

On appeal, Pioneer argues that the Board improperly analyzed its priority claim. Pioneer argues, and Monsanto does not dispute, that to deprive Pioneer of its priority claim, Monsanto had the burden to show that Pioneer's earlier application could not serve as a constructive reduction to practice of the later claim, i.e., it did not disclose any enabled embodiment of the later claim. *See Frazer v. Schlegel*, 498 F.3d 1283, 1287 (Fed. Cir. 2007). Pioneer claims that the Board improperly reversed this burden, granting Monsanto's motion when Monsanto had not made the required proof. Appellant Br. 45. Pioneer further claims that the Board improperly held it to the full enablement requirement of section 112, rather than the constructive reduction to practice standard of *Frazer*. *Id.* at 47.

We see no flaw in the Board's approach. On the matter of burdens, it is correct that Monsanto as movant had the initial burden to show why Pioneer should be deprived of its interference priority. *See* 37 C.F.R. § 41.121(b) (2010) (Board Rule 121(b)). And although the Board did not explicitly discuss burden placement, we see no error in its implicit conclusion that Monsanto had satisfied the

requirement of Board Rule 121(b). In its motion, Monsanto highlighted the Pioneer '155 application's lack of any express reference to an embodiment in which the foreign DNA did not comprise a T-DNA border. Monsanto Subst. Mot. I, *Monsanto*, at 12–13 (B.P.A.I. Apr. 26, 2010), Dkt. #72. The Board was entitled to treat this as a prima facie justification for relief, which Pioneer was required to rebut.

As for Pioneer's argument that the Board applied the wrong legal standard, we see no evidence of that. The Board cited *Frazer* and stated expressly that, "For a constructive reduction to practice, . . . a single embodiment is sufficient," which correctly recites the rule. *Interf. Priority Op.* 4. As for the Board's subsequent statement that it saw "little difference" between the enabled embodiment test at issue here and the test of section 112, paragraph 1, nothing about that statement or the rest of the opinion suggests that the Board applied anything other than the correct test.

Nor do we see any error in the Board's conclusion that Pioneer failed to overcome Monsanto's showing and demonstrate the required enabled embodiment. Reviewing the Pioneer '155 application, we agree with the Board that it includes no express discussion of T-DNA borders at all. In its briefs and argument on appeal Pioneer presented no serious contention that the foreign DNA described in that application would inherently not comprise a T-DNA border, which is the only other way the required embodiment could be found. We therefore find the Board's opinion to be without reversible error, and so affirm the *Interference Priority Opinion*.

#### IV

For the above stated reasons, the judgment of the Board stands

**AFFIRMED**

**COSTS**

No costs.