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The Precedent: Federal Circuit Reverses Indefiniteness Ruling on Means-Plus-Function Analysis in *Gramm v. Deere & Co.*

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In this edition of *The Precedent*, we outline the decision in *Gramm v. Deere & Co.*

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Overview

In *Gramm v. Deere & Co.*, the Federal Circuit reversed a district court's judgment that the key claim in a combine-header control patent was indefinite. The district court held that the "control means" limitation required a disclosed "algorithm" because it treated the structure as a microprocessor. The Federal Circuit disagreed. It held that part of the disclosed structure did not trigger the algorithm requirement. Because that structure was enough to support the claim, the "control means" was not indefinite.

Issues

1. How should the "control means" limitation in Gramm's patent be construed, and what structure in the specification corresponds to this means-plus-function term?
2. Did the district court err in finding the limitation indefinite on the ground that the patent failed to disclose an algorithm for a microprocessor-based controller?

Holdings

1. The "control means" limitation corresponds to a combination of elements, including a non-microprocessor controller implemented with logic circuitry. That structure does not require disclosure of an algorithm.
2. Because at least one adequate corresponding structure is disclosed, and that structure does not require disclosure of an algorithm, the "control means" is not indefinite.

Background and Reasoning

The patent and the “control means”

Richard Gramm owns a patent directed to automatic height control for a harvester header. As the combine moves through a field, sensors on the header detect changes in ground contour. The “control means” receives a signal from a deflection sensor and adjusts the header up or down to maintain a desired height above the soil.

The parties agreed that “control means” is a means-plus-function limitation. They also agreed on its claimed function: raising and lowering the header in accordance with the signal to keep the header at the desired height. The dispute was over the corresponding structure disclosed in the patent’s specification and whether that structure was definite.

The patent describes these structure features as including a “controller interface,” a “head controller” inside the combine, and an “electrically actuated hydraulic control system” to move the header. It states that “head controller 20” is “conventional in design” and refers to it as being “as incorporated in a Deere combine” as of 1997. The patent also notes that the hydraulic system controls both header height and lateral position.

During claim construction, the parties agreed that the corresponding structure includes the controller interface, head controller, and hydraulic control system features together in combination. But they disagreed on whether the disclosure of the “head controller 20” feature is sufficiently definite. Over the years, Deere had used three versions of its “Dial-A-Matic” head controller that would have been known to a skilled artisan as of 1997. Version 1 used discrete logic circuitry. Versions 2 and 3 used microprocessors and software.

The district court agreed with Deere on most points. It reasoned that the reference in the patent to controlling both height and lateral position showed that the patent could only be referring to head controllers that did both. It therefore excluded Version 1, which did not control lateral position. On that basis, it concluded that the head controller must be a microprocessor-based device, which requires that the patent also disclose the algorithm by which it carries out the function. Finding no disclosed algorithm, the district court held the claim indefinite and entered judgment for Deere.

Federal Circuit: structure was improperly limited

On appeal, the Federal Circuit reviewed claim construction and indefiniteness de novo, and the district court’s factual findings about the prior art controllers for clear error.

The Federal Circuit agreed with the parties and the district court that the claimed function was raising and lowering the header to maintain height, not controlling lateral position. It disagreed with the district court that the patent was indefinite. As the Federal Circuit explained, the fact that the specification mentions lateral control as an additional, unclaimed function did not mean that the corresponding structure must be limited to devices capable of performing that extra function.

The Federal Circuit explained that when identifying structure for a means-plus-function element, the focus is on what is necessary to perform the claimed function. Extra capabilities (like controlling lateral position) do not disqualify a structure. Here, controlling lateral position was not part of the “control means” limitation. Therefore, the district court erred by treating that capability as essential and using it to exclude Version 1.

Because Dial-A-Matic Version 1 was non-microprocessor-based height-control circuitry, it did not trigger the algorithm requirement. Once the Federal Circuit determined that Version 1 was part of the disclosed corresponding structure, there was no need to decide whether Versions 2 and 3 also qualified or whether their algorithms were adequately described. A means-plus-function claim is not indefinite so long as at least one adequate corresponding structure is disclosed.

The Federal Circuit therefore reversed the indefiniteness judgment. It held that the patent’s reference to a “conventional” head controller “as incorporated in a Deere combine,” combined with the expert evidence, made clear to a skilled artisan that the Dial-A-Matic Version 1 controller was a corresponding structure for the “control means.”

Takeaway

Under the means-plus-function analysis, courts should not disqualify a claimed structure simply because it does not perform unclaimed, extra functions mentioned in the specification. But patentees should draft their patents carefully to focus on what structure is necessary to perform the recited function.