Patent Law

Prof. Roger Ford
February 15, 2016
Class 5
Disclosure: Definiteness

Recap

Recap

- → Written description versus enablement
- → Written description: Timing and limitations on amendments
- → Written description: Scope and limitations on claim breadth

Today's agenda

Today's agenda

→ Definiteness background

→ *Nautilus v. Biosig*

→ Functional claiming

→ Disclosure recap

Definiteness background

(post-AIA) 35 U.S.C. § 112 — Specification

(a) In General.— The specification shall contain a **written description of the invention**, and of the **manner and process of making and using it**, in such full, clear, concise, and exact terms as to **enable any person skilled in the art** to which it pertains, or with which it is most nearly connected, **to make and use the same**, and shall set forth the **best mode** contemplated by the inventor or joint inventor of carrying out the invention.

(b) Conclusion.— The specification shall conclude with **one or more claims particularly pointing out and distinctly claiming** the subject matter which the inventor or a joint inventor regards as the invention. * * *

Disclosure requirements

→ § 112(a): Written description

→ § 112(a): Enablement

→ ~~§ 112(a): Best mode~~

→ § 112(b), (f): Definiteness

Disclosure requirements

- → § 112(a): Written description
- → § 112(a): Enablement
- → ~~§ 112(a): Best mode~~
- → § 112(b), (f): Definiteness

Definiteness background

- → Discussion question: What purposes are served by the definiteness requirement?

Definiteness background

→ Discussion question: What purposes are served by the definiteness requirement?

- Public notice: Put the public on notice of a patent holder's exclusive rights
- Institutional: Make it easier to evaluate validity, infringement, and so forth

"[I]ndefinite claims do not give **clear warning about the patentee's property rights**. They fail to inform passersby whether they are trespassing or not. Further, if patentees are allowed to be vague, they will have an **incentive to do so**, since vague claims will increase the de facto scope of a patent by forcing competitors to **expand the 'safe distance' they keep from the patentee's turf** (claims)."

Merges & Duffy, page 316

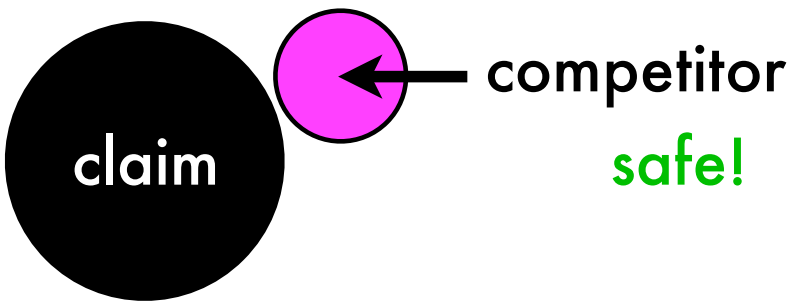
Definiteness background

→ What are the incentives to write vague claims?

Definiteness background

→ What are the incentives to write vague claims?

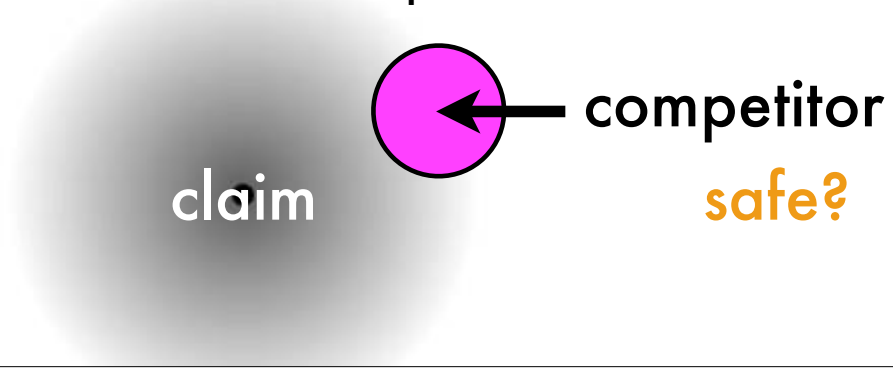
- Increase scope of 'safe distance'



Definiteness background

→ What are the incentives to write vague claims?

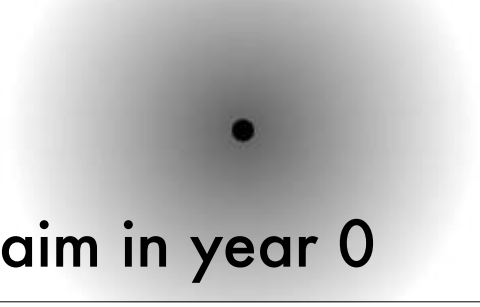
- Increase scope of 'safe distance'



Definiteness background

→ What are the incentives to write vague claims?

- Creates opportunity for after-the-fact gamesmanship



Definiteness background

→ What are the incentives to write vague claims?

- Creates opportunity for after-the-fact gamesmanship

claim in year 0

Definiteness background

→ What are the incentives to write vague claims?

- Creates opportunity for after-the-fact gamesmanship

claim in year 0

Definiteness background

→ Federal Circuit's pre-*Nautilus* approach:

- 1. Different standards in the PTO and in court, due to the presumption of validity

35 U.S.C. § 282 — Presumption of validity; defenses (post-AIA)

(a) In General.— **A patent shall be presumed valid.** Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. **The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.**

* * *

Definiteness background

→ Federal Circuit's pre-*Nautilus* approach:

- 1. Different standards in the PTO and in court, due to the presumption of validity
- 2. If someone of ordinary skill in the art can construe a claim term, it's not indefinite; it must be "insolubly ambiguous"

"We have held that **'[o]nly claims not amenable to construction or insolubly ambiguous are indefinite.'** A claim term is not indefinite just because 'it poses a difficult issue of claim construction.' Rather, the standard is **whether 'the claims [are] amenable to construction, however difficult that task may be.'** 'By finding claims indefinite only if reasonable efforts at claim construction prove futile, we accord respect to the statutory presumption of patent validity....'"

Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.,
537 F.3d 1357, 1371 (Fed. Cir. 2008) (citations omitted)

Definiteness background

→ Federal Circuit's pre-*Nautilus* approach:

- 1. Different standards in the PTO and in court, due to the presumption of validity
- 2. If someone of ordinary skill in the art can construe a claim term, it's not indefinite; it must be "insolubly ambiguous"
- 3. Definiteness is measured relative to the subject matter of the patent

"'[I]f the language is as **precise as the subject matter permits**, the courts can demand no more.' The standard to use in drafting is to ask whether an expert witness could convincingly testify that the allegedly vague language in the claim **means something definite to people in the field**. If a vague-sounding phrase — such as 'substantially equal to,' or 'closely proximate to,' or the like — translates into a **workable distinction for artisans in this field**, chances are it is not indefinite."

Merges & Duffy, page 319

"[T]he Federal Circuit made it **triply difficult** to invalidate a claim on indefiniteness ground by (1) using the **presumption of validity** of § 282 to create stringent elements for the invalidity defense and then (2) also requiring **clear-and-convincing evidence** to prove those elements; all while (3) regularly ignoring the reality that indefiniteness is a **question of law** (as are patentable subject matter and obviousness)."

Prof. Dennis Crouch, PatentlyO

Definiteness background

→ Some things were, nevertheless, indefinite:

- Terms without meaning in the specification, claims, prosecution history, and relevant field

U.S. Patent No. RE 28,525

United States Patent [19] Greene et al.

[11] E Re. 28,525
[45] Reissued Aug. 19, 1975

[54] PROCESS FOR HYDROLYZING NITRILES
[75] Inventors: Janice L. Greene, Warrensville Heights; Murrel Godfrey, Cleveland, both of Ohio
[73] Assignee: The Standard Oil Company

[58] Field of Search 260/557, 561
[56] References Cited
UNITED STATES PATENTS
3,062,883 11/1962 Gilbert et al. 260/561

2. The process for hydrolyzing a nitrile selected from the group consisting of acetonitrile, propionitrile, butyronitrile, acrylonitrile, methacrylonitrile, crotononitrile, maleic dinitrile, glutaronitrile, succinonitrile, adiponitrile, and cyclobutane-1,2-dicyanide [and benzonitrile] comprising contacting said nitrile with water at a pH of from abo[illegible] ence of a copper ion, sai[illegible] **copper ion b ing at least partially soluble in water,** t[illegible] [illegible] ion being composed of copper in a combined valence state of $Cu^\circ + Cu^+$, $Cu^\circ + Cu^{++}$, $Cu^+ + Cu^{++}$, or $Cu^\circ + Cu^+ + Cu^{++}$ at a temperature of from about 25°C to about 220°C at from about atmospheric pressure up to about 2000 psig.

"The term 'partially soluble' is not defined in the patent, nor was a standard definition of that term offered by Sohio. However, the term 'slightly soluble' did appear to have an established meaning at the relevant time, that is, in the mid-1960's.

"The Court has found **no textbook definition of the term 'partially soluble',** however, and Dr. Greene has admitted that **the term 'partially soluble' is not defined in the patent specifications.** She should, of course, have done so in the patent, and if this had been done, that definition would have been binding on this court."

Standard Oil Co. v. American Cyanamid Co.,
585 F. Supp. 1481 (E.D. La. 1984) (citations omitted)

"Obviously, Dr. Green, aware of the meaning of 'slightly soluble', having used it in the specifications, and conceding that she was 'skilled in the art' of chemistry at the time, **Dr. Green nevertheless elected to use another term,** i.e. 'partially soluble' when she stated Claim 2. Considering that she sought to devise a process useful in her employer's business, and having noted that 'lower catalyst levels' required 'quite long' reaction times it can only be fairly concluded that **she contemplated a process which required more than simply a 'slightly soluble' ion; she required that the ion be 'at least partially soluble'.** Thus, in effect Dr. Greene defined in Claim 2 a significant and substantial degree of solubility."

Standard Oil Co. v. American Cyanamid Co.,
585 F. Supp. 1481 (E.D. La. 1984) (citations omitted)

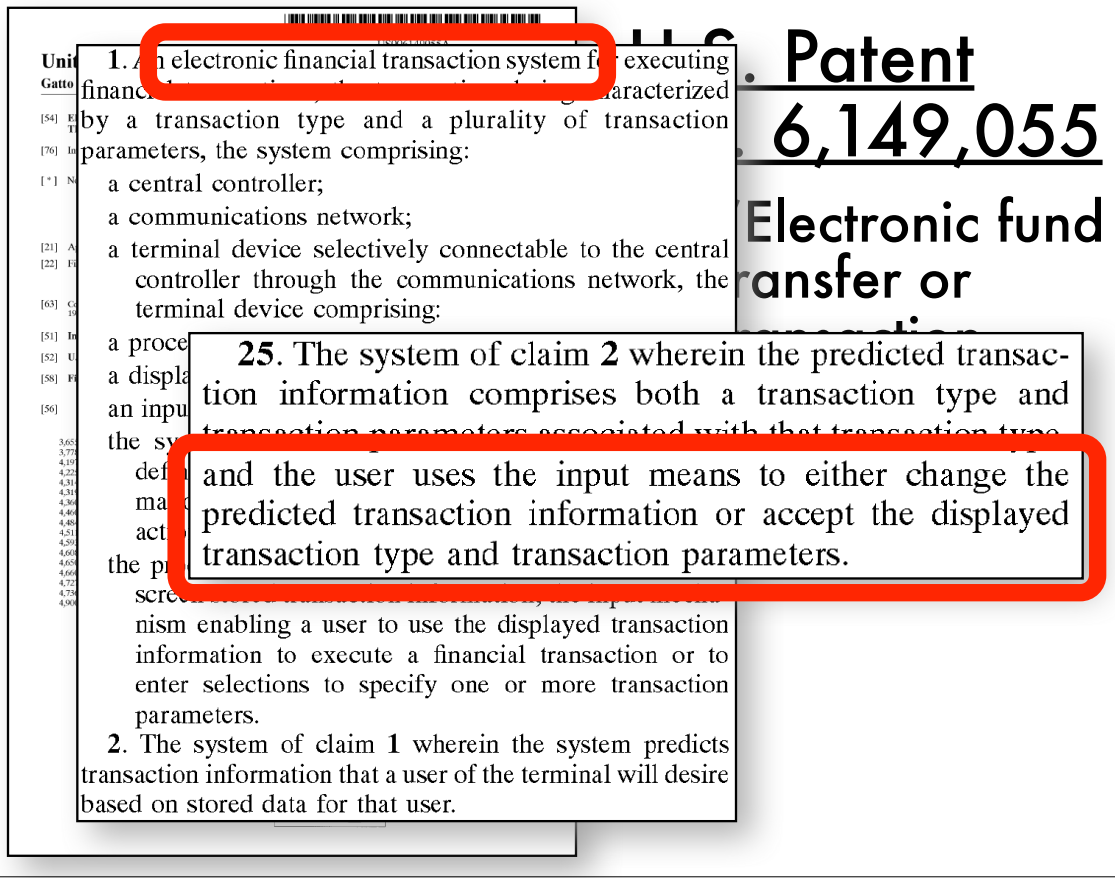
"Sohio argues that 'at least partially soluble' would have the same meaning as 'at least slightly soluble'. This Court disagrees. Taken alone, the expert testimony on this point is far from conclusive. However, **when read against the language of the reissue patent, the testimony of Dr. Cotton and Dr. Ernest Yeager to the effect that 'partially soluble' suggests 'considerable amounts' and 'substantial amounts',** respectively, become more persuasive."

Standard Oil Co. v. American Cyanamid Co.,
585 F. Supp. 1481 (E.D. La. 1984) (citations omitted)

Definiteness background

→ Some things were, nevertheless, indefinite:

- Terms without meaning in the specification, claims, prosecution history, and relevant field
- Dual-purpose/hybrid claims



"Thus, it is unclear whether infringement of claim 25 occurs **when one creates a system** that allows the user to change the predicted transaction information or accept the displayed transaction, or whether infringement occurs **when the user actually uses the input means** to change transaction information or uses the input means to accept a displayed transaction. Because claim 25 recites **both a system and the method for using that system**, it does not apprise a person of ordinary skill in the art of its scope, and it is invalid under section 112, paragraph 2."

IPXL Holdings, LLC v. Amazon.com,
430 F.3d 1377, 1384 (Fed. Cir. 2005)

Definiteness background

→ Remedy:

- Claim is invalid
- Not considered appropriate to narrow the claim to mean something more definite

Nautilus v. Biosig

Nautilus v. Biosig

→ Discussion question: Why not just prohibit ambiguous claims?

Nautilus v. Biosig

→ Discussion question: Why not just prohibit ambiguous claims?

- Tradeoffs: There are "inherent limitations of language"
- Ex ante costs: It is expensive to be precise
- No need: Maybe those of ordinary skill in the art can figure out what claims mean

Nautilus v. Biosig

→ Holdings:

- "we read § 112, ¶ 2 to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty"

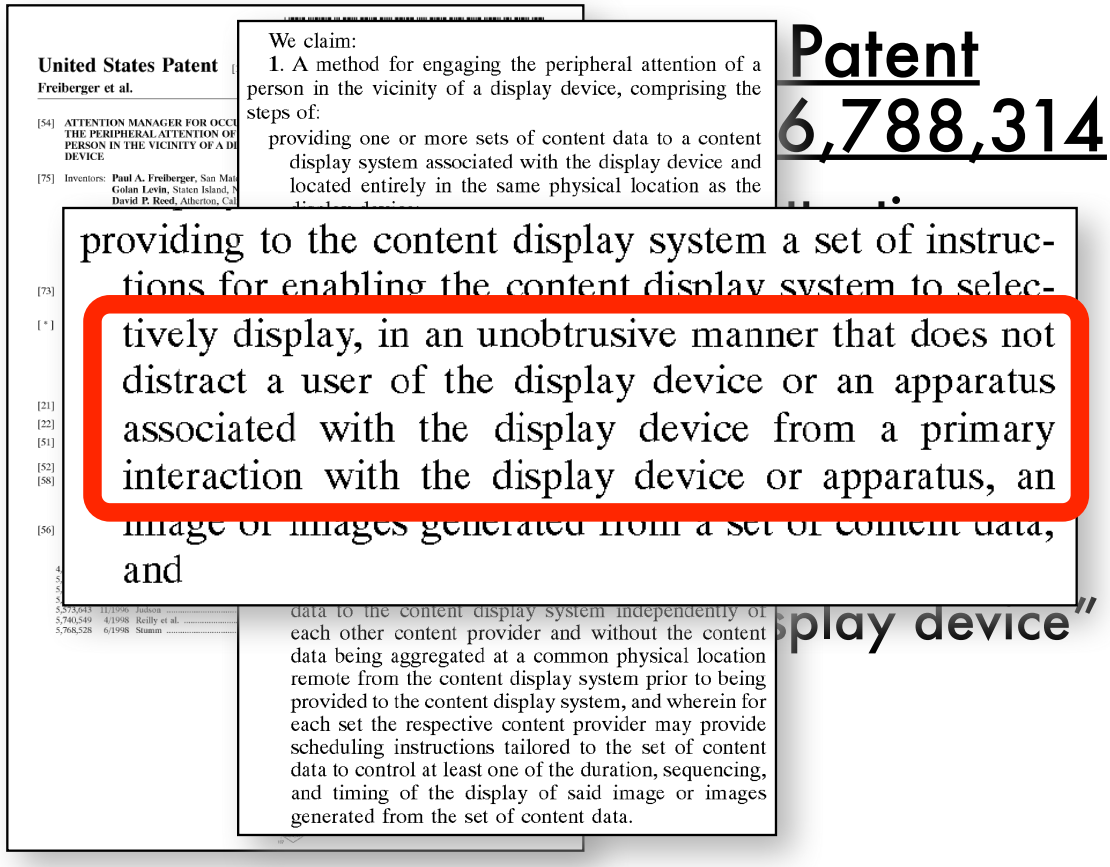
Nautilus v. Biosig

→ Holdings:

- "we read § 112, ¶ 2 to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty"
- Also: presumption of validity doesn't affect definitenes

After *Nautilus*

→ So what happens next?



After *Nautilus*

→ What's the problem with that claim language ("unobtrusive manner")?

"The key claim language at issue in this appeal includes a **term of degree** ('unobtrusive manner'). We do not understand the Supreme Court to have implied in *Nautilus,* and we do not hold today, that terms of degree are inherently indefinite. Claim language employing terms of degree has long been found definite where it provided **enough certainty to one of skill in the art when read in the context of the invention**. * * * As the Supreme Court recognized in *Nautilus,* 'absolute precision' in claim language is 'unattainable.'"

Interval Licensing LLC v. AOL, Inc., 766 F.3d 1364, 1370 (Fed. Cir. 2014) (citations omitted)

"Although absolute or mathematical precision is not required, it is **not enough**, as some of the language in our prior cases may have suggested, to identify '**some standard** for measuring the scope of the phrase.' The Supreme Court explained that a patent does not satisfy the definiteness requirement of § 112 merely because 'a court can ascribe some meaning to a patent's claims.' The claims, when read in light of the specification and the prosecution history, **must provide objective boundaries** for those of skill in the art."

Interval Licensing LLC v. AOL, Inc., 766 F.3d 1364, 1370–71 (Fed. Cir. 2014) (citations omitted)

"The patents' 'unobtrusive manner' phrase is **highly subjective** and, on its face, provides **little guidance** to one of skill in the art. Although the patented invention is a system that displays content, the claim language offers **no objective indication** of the manner in which content images are to be displayed to the user. As the district court observed, 'whether something distracts a user from his primary interaction depends on the **preferences of the particular user** and the **circumstances** under which any single user interacts with the display.' * * *

"Where, as here, we are faced with a 'purely subjective' claim phrase, we must look to the **written description** for guidance. We find, however, that sufficient guidance is lacking in the written description of the asserted patents."

Interval Licensing LLC v. AOL, Inc., 766 F.3d 1364, 1371 (Fed. Cir. 2014) (citations omitted)

Functional claiming

Disclosure requirements

→ § 112(a): Written description

→ § 112(a): Enablement

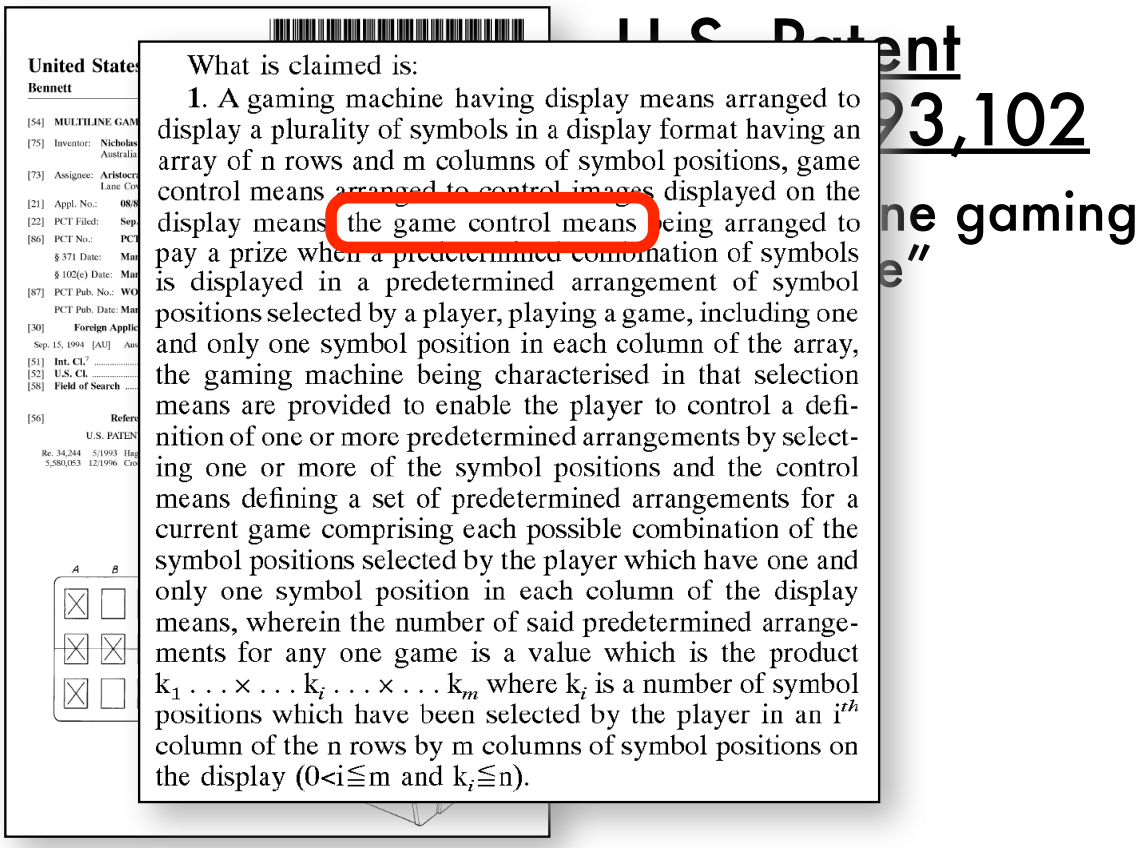
→ ~~§ 112(a): Best mode~~

→ § 112(b), (f): Definiteness

35 U.S.C. § 112 — Specification (post-AIA)

* * *

(f) Element in Claim for a Combination.— An element in a claim for a combination may be expressed as a **means or step for performing a specified function without the recital of structure**, material, or acts in support thereof, and such claim shall be construed to cover the **corresponding structure, material, or acts described in the specification** and equivalents thereof.



What is claimed is:

1. A gaming machine having display means arranged to display a plurality of symbols in a display format having an array of n rows and m columns of symbol positions, game control means arranged to control images displayed on the display means, the game control means being arranged to pay a prize when a predetermined combination of symbols is displayed in a predetermined arrangement of symbol positions selected by a player, playing a game, including one and only one symbol position in each column of the array, the gaming machine being characterised in that selection means are provided to enable the player to control a definition of one or more predetermined arrangements by selecting one or more of the symbol positions and the control means defining a set of predetermined arrangements for a current game comprising each possible combination of the symbol positions selected by the player which have one and only one symbol position in each column of the display means, wherein the number of said predetermined arrangements for any one game is a value which is the product $k_1 \ldots \times \ldots k_i \ldots \times \ldots k_m$ where k_i is a number of symbol positions which have been selected by the player in an i^{th} column of the n rows by m columns of symbol positions on the display ($0<i \leqq m$ and $k_i \leqq n$).

U.S. Patent
93,102
ne gaming
e"

Aristocrat Tech.

→ So how should we construe "game control means"?

Aristocrat Tech.

→ So how should we construe "game control means"?

→ What's wrong with this claim?

SUMMARY OF THE INVENTION

The present invention consists in a gaming machine having display means arranged to display a plurality of symbols in an array of n rows and m columns of symbol positions, game control means arranged to control images displayed on the display means the game control means being arranged to pay a prize when a predetermined combination of symbols is displayed Ln a predetermined arrangement of symbol positions including one and only one symbol position in each column of the array, the gaming machine being characterised in that the number of said predetermined arrangements for any one game is a value which is the product $k_1 \ldots k_i \ldots k_m$ where k_i represents a number of symbol positions which have been selected by the player in an i^{th} column of the display ($0<i\leq m$), at least one symbol position being selected from each column, and the number of predetermined arrangements being the number of possible combinations of the selected symbol positions which have one symbol position in each column of the display means.

"In cases involving a computer-implemented invention in which the inventor has invoked means-plus-function claiming, this court has consistently required that the structure disclosed in the specification be **more than simply a general purpose computer or microprocessor**. * * * For a patentee to claim a means for performing a particular function and then to disclose only a general purpose computer as the structure designed to perform that function amounts to **pure functional claiming**. Because general purpose computers can be programmed to perform very different tasks in **very different ways**, simply disclosing a computer as the structure designated to perform a particular function does not limit the scope of the claim to 'the corresponding structure, material, or acts' that perform the function, as required by section 112 paragraph 6."

Aristocrat Techs. v. Int'l Game Tech., 521 F.3d 1328, 1333 (Fed. Cir. 2008) (citations omitted)

"Aristocrat was not required to produce a listing of source code or a highly detailed description of the algorithm to be used to achieve the claimed functions in order to satisfy 35 U.S.C. § 112 ¶ 6. It was required, however, to **at least disclose the algorithm that transforms the general purpose microprocessor to a 'special purpose computer** programmed to perform the disclosed algorithm.'"

Aristocrat Techs. v. Int'l Game Tech., 521 F.3d 1328, 1338 (Fed. Cir. 2008) (citations omitted)

Aristocrat Tech.

→ How could we rewrite "game control means"?

positions, game control means arranged to control images displayed on the display means the game control means being arranged to pay a prize when a predetermined combination of symbols is displayed Ln a predetermined arrangement of symbol positions including one and only one symbol position in each column of the array, the gaming

Aristocrat Tech.

→ Do we think the claim limitation is enabled? If so, what's the problem?

positions, game control means arranged to control images displayed on the display means the game control means being arranged to pay a prize when a predetermined combination of symbols is displayed Ln a predetermined arrangement of symbol positions including one and only one symbol position in each column of the array, the gaming

"The fact that an ordinary skilled artisan might be able to design a program to create an access control list based on the system users' predetermined roles goes to enablement. The question before us is whether the specification contains a **sufficiently precise definition of the 'corresponding structure'** to satisfy section 112, paragraph 6, not whether a person of skill in the art **could devise some means to carry out the recited function**."

Blackboard, Inc. v. Desire2Learn, Inc., 574 F.3d 1371, 1385 (Fed. Cir. 2009)

Disclosure recap

Written description versus enablement

→ What's the difference?

- Enablement: Would someone of ordinary skill in the art be able to know how to implement the invention?
- Written description: Does the patent make clear that the inventor possessed the full scope of the invention?

Written description v. enablement v. definiteness

→ What's the difference?

- Enablement: Would someone of ordinary skill in the art be able to know how to implement the invention?
- Written description: Does the patent make clear that the inventor possessed the full scope of the invention?
- Definiteness: Does the patent put the public on notice of what is claimed?

Next time

Next time

→ Novelty!