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Patent Prosecution Update

October 2016

A Chemical Markush Claim Tests the Elasticity of “Consisting of”

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Section 112 Again Shows Teeth

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A Chemical Markush Claim Tests the Elasticity of “Consisting of”

by Clara N. Jiménez

Why are chemical patent claims so difficult to understand? This was the question posed during a 1961 presentation before the Division of Chemical Literature for the American Chemical Society. According to the author, “[A]ttention has been called to the ‘sometimes baffling’ and seemingly ‘absurd’ idiom in which are cast chemical patent claims.”¹ At least some of the blame for the confusion was attributed by the author to the “so-called ‘Markush’ claim.”² Thus, the author wisely advised, “[A]n understanding of the philosophy behind the Markush expression in chemical claims might help to understand better the meaning of chemical claims themselves.”³ More than fifty years later, and at a time where subject matter eligibility, written description, and definiteness issues are at the forefront of the patent prosecution sphere, the Federal Circuit’s decision in *Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp.*, Nos. 2015-1420, -1477 (Fed. Cir. Aug. 4, 2016), revisits the Markush claims and offers guidance on their proper use.

In *Ex parte Markush*, 1925 C.D. 126 (Comm’r Pat. 1924), the Commissioner of Patents held that “where no generic expression exists by which a group of alternative elements can be claimed applicants are permitted to recite the elements in the alternative.” Thus, “[a] Markush claim is a particular kind of patent claim that lists alternative species or elements that can be selected as part of the claimed invention.” *Multilayer Stretch*, slip op. at 10. Although the concept can be extended to various technologies, traditionally, Markush claims have been more prevalent in the chemical arts, where a Markush claim often recites the presence of a specific substituent selected from a recited group of chemicals.

No precise linguistic formula is required to create a Markush claim. See, e.g., *id.* The guidelines for patent examination are instructive on this point, providing that the “[a]lternative expressions are permitted’ so long as the claim ‘recites a list of alternatively useable species’ with no ‘uncertainty or ambiguity with respect to the question of scope or clarity of the claims.’ *Id.* (alteration in original) (quoting MPEP § 2173.05(h)). The Federal Circuit has also explained that “[a] Markush group, incorporated in a claim, should be ‘closed,’ i.e. it must be characterized with the transition phrase ‘consisting of,’ rather than ‘comprising’ or ‘including.’” *Abbott Labs. v. Baxter Pharm. Prods., Inc.*, 334 F.3d 1274, 1280-81 (Fed. Cir. 2003) (alteration in original) (citation omitted)). In *Multilayer Stretch*, the Federal Circuit addressed the proper scope of Markush claims by looking at two different ways in which the term “consisting of” was used in the claims at issue.

At issue in the case were patent claims directed to multilayered thermoplastic stretch wrap films. In particular, the Federal Circuit was asked to weigh in on the proper construction of clause (b) of

independent claim 1 and similarly worded independent claim 28. Claim 1 is representative:

“(b) **five identifiable inner layers**, with each layer being selected from the group **consisting of** linear low density polyethylene [LLDPE], very low density polyethylene [VLDPE], ultra low density polyethylene [ULDPE], and metallocene-catalyzed linear low density polyethylene [mLDPE] resins; said resins are homopolymers, copolymers, or terpolymers, of ethylene and C₃ to C₂₀ alpha-olefins....”

Dependent claim 10, which recites, in relevant part, “[t]he multi-layer, thermoplastic stretch wrap film of claim 1, where at least one said inner layer comprises low density polyethylene homopolymers [LDPE],” was also addressed.

Element (b) essentially creates a Markush group that lists four species or types of resin—LLDPE, VLDPE, ULDPE, and mLLDPE—understood to be alternately useable as “inner layers” of the claimed film. The district court construed the claim to require that each of the five layers of the film be composed of only one of the four listed resins (i.e., excluding layers made of blends of the recited resins). *Id.* at 2. Following this construction, the district court granted summary judgment of noninfringement, as at least one inner layer of the accused films contained blends of resins from the class of mLLDPE, ULDPE, and LLDPE, a fact that both parties agreed on. *See id.* at 8. The district court further invalidated claim 1, finding that it was closed to resins other than the ones explicitly recited in the Markush group. In addressing the issue of claim construction, the Federal Circuit dealt with two issues: (1) whether the *Markush* group of element (b) is closed to resins other than the listed four, and (2) whether the *Markush* group is closed to blends of the four listed resins. *Id.* at 11. In short, the Federal Circuit answered “yes” to the first question (over the dissent of Judge Taranto) and “no” to the second question.

On the first issue, the Federal Circuit reiterated that the use of the transitional phrase “consisting of” to set off a patent claim element creates a very strong presumption that the claim element is “closed” and therefore “exclude[s] any elements, steps, or ingredients not specified in the claim.” *Id.* at 12 (alteration in original) (quoting *AFG Indus., Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 1245 (Fed. Cir. 2001)). “[I]t is not inconceivable that a patentee could break with conventional claim construction and become his own lexicographer,’ so as to give [the term] ‘consisting of’ an alternative, less restrictive meaning.” *Id.* (quoting *Conoco, Inc., v. Energy & Env’tl. Int’l, L.C.*, 460 F.3d 1349, 1359 n.4 (Fed. Cir. 2006). “But to overcome the exceptionally strong presumption that a claim term set off with ‘consisting of’ is closed to unrecited elements, the specification and prosecution history must unmistakably manifest an alternative meaning.” *Id.*

Multilayer argued that this alternative meaning was communicated in the patent. But rather than arguing that the specification of the patent indeed had an unmistakable intent to open element (b) to *any* unrecited resin, Multilayer’s argument was more focused. In particular, Multilayer argued that the claimed inner layers should be open to one resin specifically claimed in its dependent claims (i.e., low density polyethylene (LDPE)). *Id.* at 14-15. A closed interpretation of claim 1, Multilayer argued, would be improper as the Court should “strive[] to reach a claim construction that does not render claim language in dependent claims meaningless.” *Id.* at 16 (alteration in original) (quoting *Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1362 (Fed. Cir. 2008)). The court rejected Multilayer’s position, noting that while dependent claims can provide guidance in the proper interpretation of the scope of an independent claim, “[t]he dependent claim tail cannot wag the independent claim dog.” *Id.* (quoting *N. Am. Vaccine, Inc. v. Am. Cyanamid Co.*, 7 F.3d 1571, 1577 (Fed. Cir. 1993)).

Consistently, the court found that the specification did not provide “a clear intent to open the Markush group of element (b) to LDPE or to any other resin not expressly listed in the claim.” *Id.* at 15. With this finding, the dependent claims that claim inner films with resins other than those four recited in claim 1,

including LDPE, also were held invalid.

Dissenting, Judge Taranto focused on the fact that the language in the claim was not a classic Markush claim, as the term preceding the listing was not representative of the generic type of elements recited within the group. In particular, Judge Taranto argued that a “layer” is an open-ended physical structure that does not “have to *be* one or more of the listed species” of resins. Taranto Dissent at 4. If the claim had said “layer consisting of” one or more of the listed resins, Judge Taranto explained, the meaning would have been plain, as it would have conveyed that the layer must be made out of only the listed resins, and not others. *Id.* at 2-3. However, the language actually used in the claims is a step removed. In element (b), “consisting of” does not follow and directly modify “layer”; it follows and directly modifies “group.” *Id.* at 2. Thus, the phrase characterizes the relationship between “group” and the listed resins: the latter are all the members of the former. *Id.* It does not characterize the (closed or open) relationship between “layer” and what materials can be ingredients of the layer. *Id.* The claim phrase naming that relationship is “selected from,” not “consisting of.” *Id.* at 2-3. The established meaning of “consisting of” therefore does not determine the meaning of the claim language here.

Id. at 3.

On the second question, i.e., whether limitation (b) of claims 1 and 28 is closed to blends of LLDPE, VLDPE, ULDPE, and mLLDPE, the Federal Circuit agreed with Multilayer that the Markush group of element (b) must be construed to permit blends of the four recited resins. *Multilayer Stretch*, slip op at 21-22 (majority opinion). Drawing a distinction with the use of “consisting of” discussed in the first question, the Federal Circuit noted that the use of the transitional phrase “consisting of,” by itself, does not necessarily suggest that a Markush group is closed to mixtures, combinations, or blends. *Id.* at 22. Nonetheless, there is a presumption that a Markush group is closed to mixtures of the listed elements. *Id.* (citing *Abbott*, 334 F.3d at 1281). If a patentee desires mixtures or combinations of the members of the Markush group, the patentee would need to add qualifying language while drafting the claim. *Id.* Here, there is no express language in element (b) permitting “mixtures,” “combinations,” or “blends” of the four recited resins; thus, under *Abbott*, the Markush group of element (b) is therefore presumed closed to blends. *Id.* at 22-23. The question is whether that presumption can be overcome by a combination of other claim language and the specification itself. *Id.* at 23.

On this point, the Federal Circuit found that Multilayer had rebutted the presumption of excluding blends of the resins. The intrinsic evidence of the patent, in the claims and the specification, is unequivocal that the inner layers described in element (b) are open, not closed, to blends of the recited resins. *Id.* The claims themselves recite a metallocene-catalyzed linear low density polyethylene (mLLDPE), which is itself a subtype of LLDPE with a particular kind of catalyst. *Id.* at 24. Similarly, the specification supports construing element (b) as open to blends, as it repeatedly and consistently references blends in describing any and all resins, including the four resins of element (b). *Id.* Similarly, the specification “repeatedly and consistently references blends in describing any and all resins, including the four resins of element (b),” and discusses blending the resins in order “to achieve a desired range of physical or mechanical properties.” *Id.* at 25 (citation omitted). Finding “nothing in the prosecution history to suggest that blends are excluded,” the Federal Circuit found “this strong intrinsic evidence” requires “the Markush group be read as open to blends of the four listed resins.” *Id.*

While Markush claims can give the patent applicant some freedom to ensure full coverage of the scope of the invention, this does not negate the right of the public to know the boundaries of the claim. This Federal Circuit decision provides some useful pointers on how to do so. First, carefully choose the “generic” group for which the Markush group is offering alternatives. As noted by Judge Taranto, Markush

group language typically recites “an X [being] selected from a group consisting of A, B, and C,” where A, B, and C are actually instances of X. Taranto Dissent at 3 (alteration in original). That is, the term X is a genus or generic descriptor. *Id.* In this case, instead of “each *layer* being selected from the group consisting of,” the claim could have been more clear and recite “each layer being made of a resin selected from the group consisting of.” Second, if mixtures or blends are within the scope of the claim, be sure to say so. As noted by the court, the presumption is that the Markush group is closed to blends and mixtures. Lastly, avoid being the applicant that “sometimes mistakenly write[s] dependent claims that invalidly add elements inconsistent with their independent claims.” *Id.* at 7. Be mindful to draft your dependent claims, ensuring that they are narrower than the precedent claims, and confirm that this remains consistent, even if the scope of the independent claims is narrowed during prosecution.

¹ Edward H. Valance, *Understanding the Markush claim in Chemical Patents*, 1 J. Chem. Doc. 87, 87 (July 1961), <http://pubs.acs.org/doi/abs/10.1021/c160002a022?journalCode=jci001>.

² *Id.*.

³ *Id.*

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Section 112 Again Shows Teeth

by Eric P. Raciti

In *Advanced Ground Information Systems, Inc. v. Life360, Inc.*, No. 2015-1732 (Fed. Cir. July 28, 2016), the Federal Circuit continued in the vein of *Williamson v. Citrix Online, LLC*¹ in affirming a district court's finding claims with a functional recitation, but insufficient structure to support that recited function, as invoking 35 U.S.C. § 112, ¶ 6, and therefore subjecting the element to construction as a means-plus-function recitation. After this construction, because sufficient structure for performing the recited function was absent in the disclosure, the claims were deemed to be indefinite under § 112, ¶ 2, and therefore invalid.

Advanced Ground Information Systems, Inc. (AGIS), asserted two patents against Life360, claiming infringement. While the specifications of the patents-in-suit differ from one another, the patents-in-suit both relate to methods, devices, and systems for establishing a communication network for users (referred to as "participants") of mobile devices, such as cellular phones. See *Advanced Ground*, slip op. at 2-3. Life360 markets a smartphone app that, among other functionality, allows members of groups to see other group members located on a map.

The asserted claims include a "symbol generator" that generates symbols representing each participant on the display of a phone. A representative recitation from one patent reads a "symbol generator in [a central processing unit ('CPU')] that can generate symbols that represent each of the *participants' cell phones* in the communication network on the display screen." *Id.* at 4 (alteration in original) (citation omitted). From the second patent, a representative recitation reads a "cellular phone for use in a communication network for a plurality of participants comprising . . . a *symbol generator connected to [a] CPU and [a] database for generating symbols on [a] touch screen display screen.*" *Id.* at 4-5 (alterations in original) (citation omitted). The asserted claims also recite that the cellular phone comprises "CPU Software." *Id.* at 5 (citation omitted). One patent recited "CPU software for selectively polling other participants with a cellular phone"; the other recited "CPU software that causes the exchange of data with other participants with a cellular phone." *Id.* (citations omitted).

The court reasoned on appeal that if it found that the "symbol generator" limitation resulted in indefiniteness, it need not reach the question of whether the "CPU software" limitation was also defective. Focusing on the "symbol generator" limitation, the court noted that the term did not have an excepted meaning in the art. Although "symbol" and "generator" were each known terms in the field of computer science, the combination did not point to a generally accepted structure. *Id.* at 9. While AGIS's expert testified that one of ordinary skill in the art would recognize it, the term "symbol generator" was also admitted as having been coined by the applicant for the patent specification. *Id.* at 9-10. Having no

recognized structural meaning, the court reasoned that the term must be functional, referring to the process of generating a symbol for the claimed combination. *Id.* at 10.

Having found that the functional recitation was not supported in the claim by recited structure capable of supporting the recited function, the court concluded that the patentee intended to invoke 35 U.S.C. § 112. The court noted that the absence of the word “means” in the claims raised a presumption that § 112, ¶ 6, did not apply, but was also quick to point out that the omission of the word “means” was not dispositive. *Id.* In an analysis referring to *Robert Bosch, LLC v. Snap-On Inc.*, 769 F.3d 1094, 1097 (Fed. Cir. 2014), the court next turned to the specification to identify structure capable of supporting the recited function, under settled § 112, ¶ 6 precedent. *Advanced Ground*, slip op. at 11. By this point in the decision, it was clear that the horse was already out of the barn.

Citing to *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371 (Fed. Cir. 2009), the court restated the proposition that if a patentee “employs means-plus-function language in a claim, [the patentee] must set forth in the specification an adequate disclosure showing what is meant by that language,” and if “the specification does not contain an adequate disclosure of the structure that corresponds to the claimed function, the patentee will have failed to particularly point out and distinctly claim the invention [under § 112, ¶ 2], which renders the claim invalid for indefiniteness.” *Advanced Ground*, slip op. at 11-12 (quoting *Blackboard*, 574 F.3d at 1382). The decision next cited to numerous precedents which held that in a means-plus-function claim in which the disclosed structure is a computer or microprocessor programmed to carry out an algorithm, as was the case here, the disclosed structure is deemed to be a special purpose computer programmed to perform the disclosed algorithm, which in turn requires that the specification express the algorithm in some understandable terms (e.g., as a mathematical formula, in prose, as a flow chart, or in any other manner that provides sufficient structure.² *Id.* at 12.

Finding no such disclosure of sufficient structure in the patent specification, the court concluded that the claims were indefinite under 35 U.S.C. § 112, ¶ 2. This decision essentially followed the same pattern as *Robert Bosch* and *Williamson*, finding that a functional recitation not containing the signal word “means” was nevertheless a means-plus-function recitation—with similarly fatal results. *Id.* at 13.

Patent drafters and prosecutors employing best practices will provide adequate structure for claims having functional recitations, as well as definitions for terms that are not terms of art. In software and computer-related inventions, the requirement to provide adequate disclosure for algorithms can be met using any of several devices, including formulas, flowcharts, or even prose. The Federal Circuit here admonished that claiming a result without the structural means to accomplish it amounts to prohibited “pure functional claiming.” *Id.* (quoting *Aristocrat Techs.*, 521 F.3d at 1333).

¹ 792 F.3d 1339 (Fed. Cir. 2015) (en banc). See <here> hyperlink to (http://www.finnegan.com/files/upload/Newsletters/Full_Disclosure/2015/June/FullDisclosure_June15_1.html).

² *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008); *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008); *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008).



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IP5 Offices

New Matter

by Arpita Bhattacharyya, Ph.D.

In this edition, we consider the IP5 offices' proscription against the introduction of new subject matter into a patent application that has already been filed. While it is not surprising that all IP5 offices disallow introduction of new matter into a patent application, what constitutes "new matter" differs among the IP5 offices, as discussed below.

China

According to Article 33 of the Patent Law of the People's Republic of China, "[a]n applicant may amend his or its application for a patent, but the amendment to the application for a patent for invention or utility model may not go beyond the scope of the disclosure contained in the initial description and claims, and the amendment to the application for a patent for design may not go beyond the scope of the disclosure as shown in the initial drawings or photographs." According to the Guidelines for Patent Examination of the State Intellectual Property Office of the People's Republic of China (SIPO), the scope of initial disclosure includes contents described literally in the initial description and claims, and contents determined "directly and unambiguously according to the contents described literally in the initial description and claims, and the drawings of the description." In practice, however, amendments to the claims, including broadening or narrowing of the claims, or rewording or rephrasing certain features, may result in a new matter rejection by the SIPO.

Japan

Under Article 17-2(3) of the Japanese Patent Law, any amendment shall be made "within the description, scope of claims or drawings originally attached to the application," thus prohibiting the addition of new matter. According to the Examination Guidelines in Japan, subject matter "obvious" from statements in the original disclosure is not considered new matter and is permitted. Whether amended subject matter is "obvious" from the original disclosure is determined from the standpoint of a person skilled in the art.

South Korea

Much like the other IP5 offices, the Korean Intellectual Property Office (KIPO) prohibits introduction of new matter. Whether any matter added is new is determined by comparison with the specification, claims, or drawing(s) attached to the patent application at the time of filing. Similar to Japan, matters that are "obvious" from the original disclosure are not considered new matter by the KIPO.

Europe

Compared to the other IP5 offices, the European Patent Office (EPO) takes a stricter approach to

amendments and any added matter. Pursuant to Article 123(2) EPC, “[t]he European patent application or European patent may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed.” Further, according to Article 123(3) EPC, “[t]he European patent may not be amended in such a way as to extend the protection it confers.” Although literal support is not required by Article 123(2) EPC, the basic principle applied is that the amendment must not add matter which the skilled person cannot “derive directly and unambiguously, using common general knowledge, from the disclosure of the invention as filed, also taking into account any features implicit to a person skilled in the art.” Guidelines for Examination, Part H, Chapter IV, Section 2.2.

United States

The U.S. Patent and Trademark Office (USPTO) takes a less restrictive approach to amendments than the other IP5 offices, especially the SIPO and the EPO. The proscription against the introduction of new matter is codified as 35 U.S.C. §§ 132 and 251. Section 132 provides that “[n]o amendment shall introduce new matter into the disclosure of the invention,” and section 251 similarly prohibits introduction of new matter in a reissue application. The question of whether new matter has been introduced into claims is evaluated under the written description requirement of 35 U.S.C. § 112(a). The Manual of Patent Examining Procedure (MPEP) at section 2163(I)(B) further provides: newly added claim limitations must be supported in the specification through “express, implicit, or inherent” disclosure. The basic principle is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed. *See, e.g., Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991).

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Design Patents

Lessons Learned from Recent IPR Decisions Involving Design Patents

by Elizabeth D. Ferrill

Crafting an argument for a design patent office action response can feel like a trip back in time. The Manual of Patent Examining Procedure (MPEP) regularly relies on court decisions from well into the last century¹ and the one before.² The MPEP also frequently cites Board decisions that are quite long in the tooth.³

Compounding matters, design patent applications are infrequently appealed, compared to their utility patent application cousins, leading to less guidance from the Board.⁴ For example, at the end of FY2016, only 63 ex parte appeals were pending in design cases, compared to 16,438 total ex parte appeals pending. That's 0.3% of the total appeals—significantly less than the representation of design patents in patent space as a whole.⁵ In FY2016, the Board only issued sixteen total decisions on ex parte appeals, seven affirmances of the rejection, and nine reversals—and likely only the nine reversals may ever become publicly available.⁶ Appeal decisions available to the public from design cases are generally those that reverse the decision of the examiner, where the application eventually issued as a patent.⁷

As a result, design patent inter partes review (IPR) decisions offer a welcome opportunity to receive further guidance from the Board on design-patent-related issues. To date, however, only twenty-eight IPR petitions have involved a design patent. Fifteen IPRs have reached an institution decision—eight were instituted (meaning that the Board found there was a reasonable likelihood that the petitioner would prevail and the patent would be found invalid) and seven were denied institution (meaning that the Board found the petitioner did not carry its burden and the IPR does not proceed). Of the eight IPRs instituted, two are pending final written decisions and in six, the Board cancelled the subject patent. Cumulatively, there are thirteen opinions (seven denying institution and six finding a patent unpatentable) from the Board regarding design patents. Many of them contain helpful information for those prosecuting design patent applications. We will consider three of these decisions in detail.

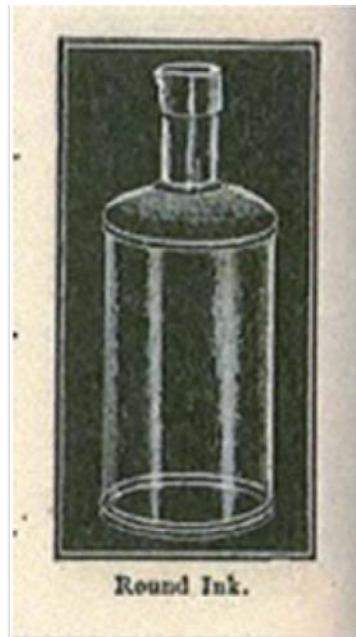
***Vitro Packaging, LLC v. Saverglass, Inc.*, IPR2015-00947**

The design patent in this IPR was directed to the design of a bottle. The petitioner unsuccessfully challenged the validity of the patent on obviousness grounds based on two separate primary references in combination with other references.



FIG. 1

U.S. Patent No. D526,197



Round Ink, 1906
(Primary reference)



MOULD CH No. 146

CH No. 146
(Primary reference)

This decision is notable for three reasons. First, the petitioner proposed an exacting, numerical claim construction that included, among other things, specific height-to-width ratio (“approximately 1.6”) and description of the taper of the profile of the design (“approximately 10 percent”). In contrast, the Board adopted a lengthy prose description of each physical feature of the bottle design, without a single numerical calculation or comparison.

Second, through a comparison chart (shown below), the petitioner used its numerical-based claim construction in an attempt to establish that one of the references should be a primary reference because of its similar relative dimensions.

Design Feature	Claim 1 Design	CH No. 146
Main body height versus width ratio	1.6	1.54
Main body taper—top to bottom	10 percent	9 percent
Main body upper shoulders	square	square
Ratio – body height to neck height	2.5	2.5
Ratio – body width to neck width	3	2.4

The Board rejected this type of comparison, in favor of a side-by-side visual comparison. As the Board put it, “[w]e are not persuaded by Petitioner, or its Declarant, that relative dimensions, at least in the case of a ubiquitous commercial product such as a bottle, are by themselves sufficient to evoke an accurate visual comparison between two bottles. We must look more closely at the distinctive visual appearances.....”⁸

Finally, the Board disagreed with the petitioner’s attempt to diminish certain differences as between the claimed design and the prior art as “less noticeable features,” and thus not barriers to a finding of

obviousness. But, instead, the Board held that “just because a design feature is ‘slight’ does not by itself lead directly to the conclusion that such a feature would result in a *de minimus* difference in appearance.”⁹ As a result, the Board denied institution.

***Premier Gem Corp. v. Wing Yee Gems & Jewellery Ltd*, IPR2016-00434**

The subject of this IPR petition was a design patent for a diamond jewelry setting.

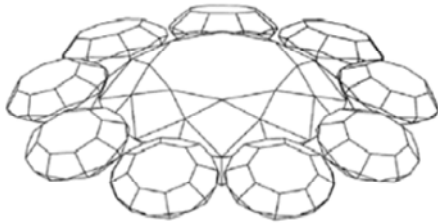


FIG. 1

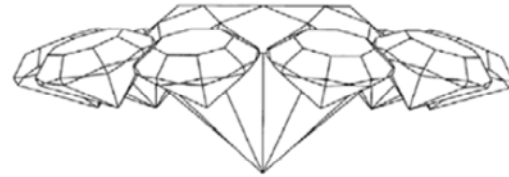


FIG. 2

U.S. Patent No. D618,132

The petitioner relied on a single prior art design, the Lotus Caret design, as shown in multiple references, as its primary reference for its obviousness analysis, in combination with five secondary references.

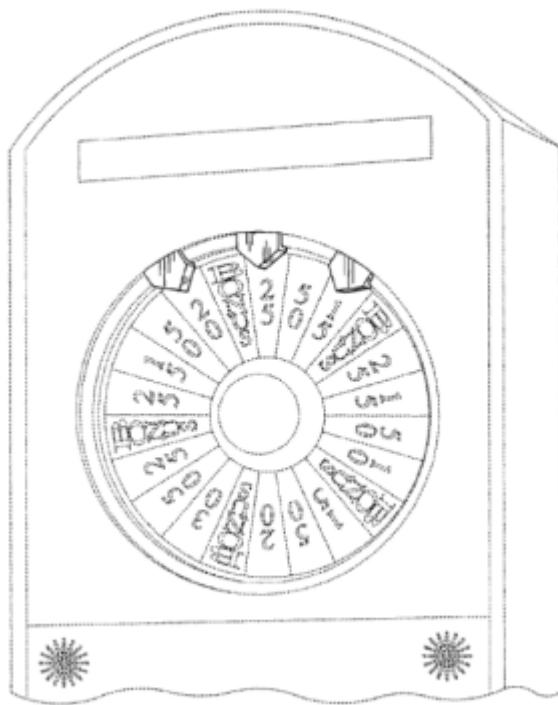
The Board also denied institution in this case and, in doing so, set forth three important ideas. First, the Board challenged the quality of the disclosure in the secondary references, finding that “the details of the secondary reference designs are not clearly discernable based on the evidence in the record,” forcing the Board to “guess at what is shown in the photos of the secondary references” without supporting references.¹⁰

Second, the Board found that the petitioner improperly focused on “design concepts” rather than the overall visual appearance of the claimed design and the prior art. In sum, the Board stated that petitioner relied on “a general design concept that is too high a level of abstraction to be useful in the obviousness analysis.”¹¹

Finally, the Board squarely challenged the petitioner’s obviousness analysis, concluding that “Petitioner appears to have selectively chosen certain design features of the secondary references (the mixing of stones of different cuts) while deliberately ignoring other design features of those references just so the claimed design would result. . . . This selective use of the design characteristics of the prior art suggests that it is driven by a hindsight reconstruction of the invention rather than the objective teachings of the references.”¹²

***Aristocrat Technologies, Inc. v. IGT*, IPR2016-00767**

In this recent IPR institution decision, the Board denied institution on both anticipation and obviousness grounds. This IPR involves a design patent claiming a “gaming device having a display with multiple indicators,” with the pentagon-shaped arrows being the only elements of the claimed design (the remainder of the structures are in broken lines, and thus not claimed).



U.S. Patent No. D503,951

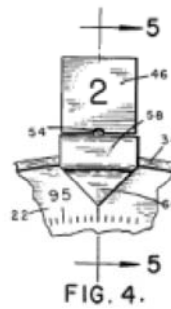


FIG. 4.

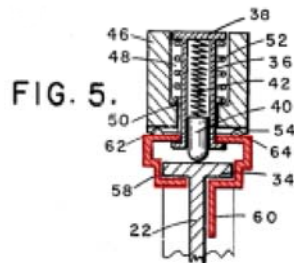


FIG. 5.

Corwin, US 3,203,391,
Navigation Instrument
(Primary reference)

The Board considered the petitioner's anticipation argument using the ordinary observer test as set forth in *International Seaway Trading Corp. v. Walgreens Corp.*¹³ The petitioner argued that Corwin should anticipate the '951 patent because the shape and proportion of Corwin's indicators are "practically identical to the claimed design."¹⁴ But, as the Board noted, the petitioner also admitted that the Corwin indicators "dip down at the 'roof' by bending toward the screen" (see red area in cross-sectional view shown above), but in petitioner's view, the differences are "too minor to prevent a finding of anticipation."¹⁵ The Board was not persuaded that the ordinary observer would find the "dip down" and other differences to be "minor, trivial, or insignificant differences" and declined to institute on this ground.¹⁶

Another important takeaway from this decision is that the Board noted the petitioner's expert shaded only one surface of the pentagon shape, thereby "implicitly reducing the claimed design from three- to two-dimensions" and then proceeded to compare only this portion of the claimed design to the prior art.¹⁷ The Board held that the expert's "failure to apply the art to the claimed design completely undermines his opinion regarding substantial similarity."¹⁸

Lessons Learned

In each IPR institution decision described above, the Board maintained the validity of the design patent and did not institute the IPR proceedings. Accordingly, many of these holdings could be helpful in responding to an examiner's office action rejecting a claim design on anticipation or obviousness grounds.

For example, the quality of the disclosure in the reference raised by the examiner might not be sufficient. Or, the examiner may appear to be applying a claim construction heavily based on numbers and measurements, ignoring the importance of the overall visual design. The examiner may only be comparing a single side of the claimed design to the claimed design and not considering the other views. The examiner may attempt to promote certain features and dismiss others as “less noticeable” or “trivial.” Or, the examiner may be selectively choosing certain design features in an obviousness combination that is the hallmark of impermissible hindsight analysis.

While the number of ex parte appeals in designs is low, the Board’s IPR decisions continue to be a good source of information about the Board’s interpretation of design law.

¹ *E.g.*, *In re Cornwall*, 230 F.2d 457 (CCPA 1956); *Litton Sys., Inc. v. Whirlpool Corp.*, 728 F.2d 1423 (Fed. Cir. 1984).

² *Gorham Co. v. White*, 81 U.S. (14 Wall.) 511 (1871).

³ *Ex parte Asano*, 201 USPQ 315, 317 (BPAI 1978); *Ex parte Strijland*, 26 USPQ2d 1259, 1263 (BPAI 1992).

⁴ Fiscal Year 2016, Patent Trial & Appeal Board, Receipts and Dispositions by Technology Centers, Ex Parte Appeals, http://www.uspto.gov/sites/default/files/documents/fy2016_aug_e.pdf.

⁵ To put this in perspective, in the last decade, design patents have typically represented between 7 and 13 percent of the total patents granted in the United States. U.S. Patent Statistics Chart - Calendar Years 1963-2015, http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (last visited Sept. 19, 2016).

⁶ The file history of a design patent application is not publicly available until the design patent issues. If an application does not issue—such as if it was finally rejected and not appealed or if the issue fee is not paid—then the file history is not available to the public and neither is the appeal.

⁷ The notable exception would be those applications that are appealed to the Federal Circuit. *See, e.g.*, *In re Owens*, 710 F.3d 1362 (Fed. Cir. 2013) (affirming the Board’s rejection of the pending design patent application).

⁸ IPR2015-00947, Paper 13 at 14 (PTAB Sept. 29, 2015) (citation omitted).

⁹ *Id.* at 12.

¹⁰ IPR2016-00434, Paper 9 at 15 (PTAB July 5, 2016).

¹¹ *Id.* at 16.

¹² *Id.*

¹³ 589 F.3d 1233, 1240 (Fed. Cir. 2009).

¹⁴ IPR2016-00767, Paper 8 at 10 (PTAB Spt. 14, 2016) (citation omitted).

¹⁵ *Id.*

¹⁶ *Id.* at 12.

¹⁷ *Id.* at 11.

¹⁸ *Id.* at 12.

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Rule Review

Approaching the End of the Line for Accelerated Examination?

by Jeffrey M. Jacobstein

Patent examination at the U.S. Patent and Trademark Office (USPTO) can be a lengthy affair. Aware of the backlog, the USPTO currently offers several options for jumping the queue and getting applications examined out of turn. These include Accelerated Examination (AE), Track One Prioritized Examination (Track One), Petition to Make Special, and the First Action Interview Pilot Program (which allows an applicant to request an early interview prior to a first office action, increasing the likelihood that the examiner will subsequently pick the case up for examination sooner than scheduled). Not all the programs are equally well used by applicants. Currently, the most popular option is Track One, where an applicant can request examination out of turn under certain conditions by paying a fee. The program does not require the applicant to provide a search report or other examination document. AE, in contrast, adds a requirement to conduct a pre-examination search and submit an accelerated examination support document. Understandably, these added steps limit the program's popularity.

On August 16, 2016, the USPTO published several changes to the AE program in an effort to harmonize it with recent treaties and other law changes enacted since the program began in 2006. *Changes in Accelerated Examination Practice*, 81 Fed. Reg. 54,564 (Aug. 16, 2016). Hidden in the technical changes to the rules was a brief remark suggesting that the USPTO is considering ultimately terminating the program:

Subsequent to the implementation of the AE program in 2006, the Office implemented the prioritized examination program (referred to as "Track I") provided for in the AIA in a final rule published on September 23, 2011. Since implementation of Track I in 2011, the USPTO has received fewer than 200 AE requests annually. In view of the relatively low usage of the AE program, the USPTO plans to publish a request for comments in the Federal Register to seek public input on whether there is value in retaining the AE program in view of the more popular Track I program.

Id. at 54,565. Thus, while the USPTO has attempted to modernize AE, its days may also be numbered.

Technical Changes to the AE Program

As the USPTO acknowledged in the Federal Register notice, after implementing the AE program in 2006, "the patent landscape has witnessed numerous legal changes such as the America Invents Act (AIA), the Patent Law Treaties Implementation Act (PLTIA) implementing the provisions of the Patent Law Treaty (PLT), and the USPTO's adoption of the Cooperative Patent Classification system (CPC) along with

changes to USPTO systems.” *Id.* at 54,564. Those changes, inter alia, redefined the scope of available prior art, required the USPTO to afford applicants at least two months to respond to USPTO communications, and changed the USPTO’s patent classification scheme to harmonize it with the system used in Europe. To bring the AE program into conformity with these new laws, the USPTO made the following changes:

- Require applicants to conduct a pre-examination classification search based on the common classification system (CPC) rather than the United States Patent Classification system (USPC);
- Instruct applicants to identify in their accelerated examination support document whether an application is a pre-AIA or post-AIA application, and then provide appropriate indications of whether pre-AIA 35 U.S.C. § 103(c) (disqualifying prior art under the CREATE ACT) or post-AIA 35 U.S.C. § 103(b)(2)(C) (expanding the scope of disqualified art) applied to any references identified in the pre-examination search;
- Provide applicants with at least two months to respond to office actions, rather than the one month or thirty days previously afforded by the AE program;
- Amend the rule barring petitions, particularly petitions to designate a person with sufficient proprietary interest as the applicant or to accept a delayed priority claim;
- Amend the rule on priority claims to refer to an application data sheet rather than the first sentence of the specification;
- Require the filing of AE requests only through the USPTO’s EFS-Web electronic filing system; and
- Explain that while an oath/declaration is no longer required on filing an application after the AIA, it is a requirement under 37 C.F.R. § 1.51 and thus must be present upon filing for entry in the AE program.

Id. at 54,565-66.

Comparison of AE to Track One

Unlike the AE program, Track One does not require a pre-examination search or an accelerated examination support document. Rather, an applicant need only pay a fee and have (or amend) its application to present a maximum of four independent claims, thirty total claims, and no multiple dependent claims. 37 C.F.R. § 1.102(e). As with AE, Track One permits an applicant to take extensions of time, but doing so will result in expulsion from the program. Both programs have an average first action pendency of about four to five months, as compared to eighteen months for a standard application.

As Track One does not force an applicant to conduct a pre-examination search and put on record its analysis of the identified art, it has generally been more popular (despite having a substantially higher fee for entrance into the program). The USPTO stated in the recent AE Federal Register notice that it receives an average of fewer than 200 AE requests *annually*. 81 Fed. Reg. at 54,565. In contrast, the USPTO’s most recent statistics show it received between 700-1200 Track One requests *per month* for the twelve months to July 2016. USPTO Data Visualization Center, Patents Dashboard, <http://www.uspto.gov/corda/dashboards/patents/main.dashxml?CTNAVID=1007> (last visited on Aug. 19, 2016). Given this significant disparity in usage, it is not surprising that the USPTO is considering whether to terminate the AE program.

Regardless, at present, both programs are available, and an applicant desiring to have a case considered out of turn should consider the benefits and drawbacks of each option. If cost is a concern, then AE may be a better option. But if an applicant is willing to pay for faster examination while seeking to minimize

prosecution history, then Track One may be the preferred choice.

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EPO Practice

New Financial Incentives to Abandon European Patent Applications

by Philip L. Cupitt, Ph.D.

The European Patent Office (EPO) has made significant progress in recent years to reduce the time taken to examine European patent applications.¹ Despite this welcome progress, the total number of pending applications has steadily increased.² In an attempt to tackle the backlog, the EPO has launched a new initiative to encourage applicants to abandon their applications in exchange for a refund of the official examination fee.³

The proportion of the examination fee that is refunded depends upon whether substantive examination of the application has begun:

1. Before Substantive Examination Has Begun

The examination fee will be refunded in full if an application is terminated before substantive examination has begun. To qualify for the refund, the application may be actively withdrawn by the applicant, refused by the EPO, or deemed to be withdrawn (e.g. due to nonpayment of a renewal fee).

Under the previous regime, 75% of the examination fee was refunded if an application was terminated before substantive examination had begun. The new regime thus gives applicants an extra financial incentive to abandon applications that, for example, have ceased to be commercially important or receive an unfavourable Supplementary European Search Report.

2. After Substantive Examination Has Begun

Half of the examination fee will be refunded if an application is withdrawn before the deadline for responding to the first examination report ("Communication pursuant to Article 94(3) EPC"). However, if the application was already in an allowable form before the start of substantive examination, the refund is only available if the application is withdrawn before issuance of the notification of the intention to grant ("Communication under Rule 71 (3) EPC").

It is important to note that, after examination has begun, the application must be actively withdrawn to qualify for the refund. The examination fee will not be refunded if, for

example, the application is deemed to be withdrawn due to nonpayment of a renewal fee or through failure to respond to the first examination report. It should also be noted that the refund is only available for applications for which substantive examination begins on or after November 1, 2016.

Under the previous regime, no refunds were available after substantive examination had begun. The new regime thus gives applicants an opportunity to cut their losses when the first examination report suggests that the examiner's objections are likely to be insurmountable.

When Does Substantive Examination Begin?

For the purposes of determining the amount of the refund that is available, substantive examination is deemed to begin when the examiner actually starts preparing the first examination report or the notification of the intention to grant.⁴ This may be several months, or even years, after the examination fee was paid.

It is possible to find out whether substantive examination of a published application has begun by inspecting the European Patent Register.⁵ A document entitled "Examination started" is automatically added to the application's public file when the examiner starts preparing the first examination report, typically several days before the examination report itself is issued.

Notification of the Expected Start of Substantive Examination

To give applicants more opportunity to obtain a full refund of the examination fee, the EPO now sends a written notification of the date on which it expects substantive examination to begin.⁶ The notification, which is entitled "Expected start of examination" (EPO Form 2919), will be issued at least two months before substantive examination begins.

There is no need to respond to the notification if the applicant wishes to proceed with substantive examination. On the other hand, if the applicant wishes to be sure of obtaining a full refund of the examination fee, the application should be actively withdrawn before the date given in the notification.

The notification will not be issued for all applications,⁷ so applicants should not rely upon being given advance warning of the date by which they can withdraw an application to obtain a full refund of the examination fee.

Refunds of Other Official Fees

The new financial incentives to abandon applications during examination supplement the existing incentives to abandon applications at other procedural stages.

It has long been possible to obtain a full refund of the search fee when an application is terminated before the EPO has begun to draw up the search report,⁸ and to obtain a full refund of the appeal fee when an appeal is withdrawn before filing the grounds of appeal.⁹ More recently, the EPO has tried to reduce the backlog of pending appeals by offering a 50% refund of the appeal fee when an appeal is withdrawn before oral proceedings, before the deadline for responding to an invitation to file observations, or before a decision on the appeal is issued.

¹ According to the IP5 Statistics Reports for 2012 and 2014, the median time between the start of substantive examination and the final action (i.e., grant, refusal, withdrawal, or abandonment) has fallen from 36.7 months in 2011 to 22.8 months in 2014.

² According to the IP5 Statistics Reports for 2012 and 2014, the number of pending applications has increased from 355,803 in 2011 to 396,049 in 2014.

³ See Decision of the Administrative Council of 29 June 2016 amending Article 11 of the Rules relating to Fees (CA/D 4/16) (Official Journal of the EPO 2016, A48).

⁴ See Notice from the European Patent Office dated 29 January 2013 concerning adjustments to the system for search and examination fee refunds (Official Journal of the EPO 2013, 153).

⁵ <https://register.epo.org>.

⁶ See Notice from the European Patent Office dated 30 June 2016 concerning refunds of the examination fee (Official Journal of the EPO 2016, A49).

⁷ The notification will be issued “*for certain files and if operationally possible.*” *Id.* (emphasis added).

⁸ Article 9 of the Rules Relating to Fees.

⁹ Rule 103(1)(b) EPC.

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At the Federal Circuit

The Federal Circuit Offers Instruction on Alice's First Step

by J. Derek McCorquindale

The Federal Circuit recently provided guidance post-*Alice* for courts analyzing motions for judgment on the pleadings under Fed. R. Civ. P. 12(c) seeking to invalidate claims for lack of patentable subject matter under 35 U.S.C. § 101. In *McRo, Inc. v. Bandai Namco Games America Inc.*, No. 2015-1080 (Fed. Cir. Sept. 13, 2016), a unanimous panel of the court—presided over by Judge Reyna (opinion author) and joined in the decision by Judges Taranto and Stoll—determined that the district court erred in granting the motion invalidating U.S. Patent Nos. 6,307,576 (“the ‘576 patent”) and 6,611,278 (“the ‘278 patent”). The court held, focusing on the first prong of the two-part test established by the Supreme Court, “that the ordered combination of claimed steps, using unconventional rules that relate sub-sequences of phonemes, timings, and morph weight sets, is not directed to an abstract idea and is therefore patent-eligible subject matter under § 101.” Slip op. at 4. The Federal Circuit, accordingly, reversed and remanded. *Id.*

The ‘576 patent and the ‘278 patent, both entitled “Method for Automatically Animating Lip Synchronization and Facial Expression of Animated Characters,” share a common specification and are directed to automating part of a preexisting 3-D animation method. *Id.* “[T]he primary object of this invention [is] to provide a method for automatically . . . producing accurate and realistic lip synchronization and facial expressions in animated characters.” ‘576 patent col. 2 ll. 45–50. According to the court, “This automation is accomplished through rules that are applied to the timed transcript” and “go beyond [prior art methods] simply matching single phonemes from the timed transcript with the appropriate morph target.” *McRo*, slip op. at 9. The patents-at-issue claim that the use of rule sets produce more realistic speech by “tak[ing] into consideration the differences in mouth positions for similar phonemes based on context.” ‘576 patent col. 10 ll. 6–7 . Claim 1 of the ‘576 patent was deemed representative and dispositive as to the outcome on this issue:

A method for automatically animating lip synchronization and facial expression of three-dimensional characters comprising:

obtaining a first set of rules that define output morph weight set stream as a function of phoneme sequence and time of said phoneme sequence;

obtaining a timed data file of phonemes having a plurality of sub-sequences;

generating an intermediate stream of output morph weight sets and a plurality of transition

parameters between two adjacent morph weight sets by evaluating said plurality of sub-sequences against said first set of rules;

generating a final stream of output morph weight sets at a desired frame rate from said intermediate stream of output morph weight sets and said plurality of transition parameters; and

applying said final stream of output morph weight sets to a sequence of animated characters to produce lip synchronization and facial expression control of said animated characters.

Id. at col. 11 ll. 27–47.

Asserting the above patents, among others, Plaintiff-Appellant McRo, Inc. (d/b/a Planet Blue), filed numerous lawsuits across the country against video game developers. Eight such suits were transferred and consolidated with other existing actions in the United States District Court for the Central District of California, where the cases were consolidated for pretrial purposes on two tracks. After claim construction in the Track 1 cases, all defendants from both tracks filed a motion for judgment on the pleadings under Rule 12(c), asserting that the claims were directed to patent-ineligible subject matter. On September 22, 2014, the trial court granted the motion, invalidating claims under 35 U.S.C. § 101. The court applied the two-step analysis prescribed by the Supreme Court in *Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347, 2355 (2014).

According to the Federal Circuit, in finding the claims patent ineligible under *Alice* step one, the district court “attempted to ‘factor out conventional activity’ by comparing the claims to the admitted prior art process that the patent sought to improve.” *McRo*, slip op. at 14 (citation omitted). The district court accepted that “a central part of the patents is ‘using morph weight set representations of the facial shape coupled with rules . . . to generate keyframes.’” *Id.* (citation omitted). The district court determined “whether the inclusion of that *concept* in the claims satisfies § 101 given (1) the prior art, and (2) the fact that the claims do not require any particular rules.” *Id.* (citation omitted). The district court found the claims “too broadly preemptive to satisfy § 101,” because the claims were not limited to specific rules, but rather “purport to cover all such rules.” *Id.* (citation omitted). As such, in the district court’s opinion, the claims “merely call for application of the abstract idea of using rules,” which is prohibited under *Alice*. *Id.* The district court concluded that the claims were unpatentable because “the novel portions of [the] invention are claimed too broadly.” *Id.* (alteration in original) (citation omitted).

On appeal, McRo argued that the claims are not directed to an abstract idea, because they generate a tangible product, i.e., “a video of a 3-D character speaking the recorded audio.” *Id.* at 15 (citation omitted). McRo specifically contended that the claim teaches “a method for getting a computer to automatically generate video of a 3-D animated character speaking in sync with pre-recorded dialogue—without requiring an artist’s constant intermediation,” which is technological by nature. *Id.* (citation omitted). “These limitations are specific enough in McRO’s view because the rules will necessarily vary by character as, for example, ‘a swamp monster will use different rules than a tight-lipped cat.’” *Id.* at 16 (citation omitted). The Defendants-Appellees argued, on the other hand, that the claims represent merely unpatentable algorithms, which can be performed with pencil and paper. These preexisting algorithms, according to Defendants-Appellees, are not rendered patentable by simply automating the process on a general-purpose computer. *Id.* “The relationships expressed by these rules, Defendants[-]Appellees] argue, inevitably capture ‘a preexisting fundamental truth’ about how a human mouth looks while

speaking certain sounds over time, preempting all possible rules-based methods.” *Id.* at 17 (quoting *Alice*, 134 S. Ct. at 2356).

The Federal Circuit disagreed with the unpatentable subject matter determination and reversed the trial court’s Rule 12(c) disposition *entirely under Alice step one*. *Id.* at 27. While noting generally that “[m]athematical formulas are a type of abstract idea,” *id.* at 19 (citing *Gottschalk v. Benson*, 409 U.S. 63, 64 (1972)), the court reminded that “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter,” *id.* at 19-20 (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). In *Diamond v. Diehr*, 450 U.S. 175 (1981), for example—where the claims “employed a ‘well-known’ mathematical equation”—the patentable claims “used that equation in a process designed to solve a technological problem in ‘conventional industry practice.’” *Alice*, 134 S. Ct. at 2358 (quoting *Diehr*, 450 U.S. at 177-78). When looked at as a whole, the Federal Circuit reminded, “the claims in *Diehr* were patent eligible because they improved an existing technological process, not because they were implemented on a computer.” *McRo*, slip op. at 21 (quoting *Alice*, 134 S. Ct. at 2358). According to the court:

We have previously cautioned that courts “must be careful to avoid oversimplifying the claims” by looking at them generally and failing to account for the specific requirements of the claims. Here, the claims are limited to rules with specific characteristics[,] [a]s the district court recognized during claim construction Whether at step one or step two of the *Alice* test, in determining the patentability of a method, a court must look to the claims as an ordered combination, without ignoring the requirements of the individual steps. The specific, claimed features of these rules allow for the improvement realized by the invention.

Id. (first quoting *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); and then citing *Diehr*, 450 U.S. at 189 n.12)). The Federal Circuit explained that the specification at issue confirms that “the claimed improvement here is allowing computers to produce ‘accurate and realistic lip synchronization and facial expressions in animated characters’ that previously could only be produced by human animators.” *Id.* at 22 (quoting ’576 patent col. 2 ll. 49-50).

The Defendants-Appellees, according to the court, “do not dispute that processes that automate tasks that humans are capable of performing are patent eligible if properly claimed; instead, they argue that the claims here are abstract because they do not claim specific rules.” *Id.* But, the court determined, “[t]he claimed rules here . . . are limited to rules with certain common characteristics, i.e., a genus,” and “[c]laims to the genus of an invention, rather than a particular species, have long been acknowledged as patentable.” *Id.* (citing *Diamond v. Chakrabarty*, 447 U.S. 303, 305 (1980)). It clarified:

Patent law has evolved to place additional requirements on patentees seeking to claim a genus; however, these limits have not been in relation to the abstract idea exception to § 101. . . . It is self-evident that genus claims create a greater risk of preemption, thus implicating the primary concern driving § 101 jurisprudence, but this does not mean they are unpatentable. . . . We therefore look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.

Id. at 23.

With respect to claim 1 of the '576 patent, the court found it “focused on a specific asserted improvement in computer animation, i.e., the automatic use of rules of a particular type,” and not merely an attempt to “use a computer as a tool to automate conventional activity.” *Id.* at 24. “The computer here is employed to perform a distinct process to automate a task previously performed by humans. . . . It is the incorporation of the claimed rules, not the use of the computer, that ‘improved [the] existing technological process’ by allowing the automation of further tasks.” *Id.* (alteration in original) (quoting *Alice*, 134 S. Ct. at 2358). Further, the court observed, “While the result may not be tangible, there is nothing that requires a method ‘be tied to a machine or transform an article’ to be patentable. The concern underlying the exceptions to § 101 is not tangibility, but preemption.” *Id.* at 25 (first quoting *Bilski v. Kappos*, 561 U.S. 593, 603 (2010); and then citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1301 (2012)). And “[t]he limitations in claim 1 prevent preemption of all processes for achieving automated lip-synchronization of 3-D characters The specific structure of the claimed rules would prevent broad preemption of all rules-based means of automating lip synchronization, unless the limits of the rules themselves are broad enough to cover all possible approaches.” *Id.* at 25-26. And the court found that there had been no showing to that effect by Defendants-Appellees. *Id.* at 26 (“There has been no showing that any rules-based lip-synchronization process must use rules with the specifically claimed characteristics. Defendants’ attorney’s argument that any rules-based lip-synchronization process must use the claimed type of rules has appeal, but no record evidence supports this conclusion.”). Thus, “[b]y incorporating the specific features of the rules as claim limitations, claim 1 is limited to a specific process for automatically animating characters using particular information and techniques and does not preempt approaches that use rules of a different structure or different techniques.” *Id.* at 27. The court reversed and remanded. *Id.*

Decided completely under *Alice*’s first prong, the Federal Circuit reiterated that in order to find an unpatentable abstract idea, the claim must be “looked at as a whole.” *Id.* Following this analysis, claim 1 was deemed patentable subject matter teaching a “technological improvement over the existing, manual 3-D animation techniques,” because “[t]he claim uses the limited rules in a process specifically designed to achieve an improved technological result in conventional industry practice.” *Id.* (citing *Alice*, 134 S. Ct. at 2358). Practitioners should familiarize themselves with this opinion and its extensive analysis and insight in the first step of the *Alice* inquiry.

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