

**2021 PLI Advanced Patent  
Prosecution Workshop**

**Electronics/Computer  
Section**

**Classroom Solutions  
&  
Homework Solutions**

**PLI** PRACTISING <sup>SM</sup>  
LAW  
INSTITUTE

This problem is based on the case Massachusetts Institute of Technology v. Abacus Software, 2006 U.S. App. LEXIS 23281 (Fed. Cir. 2006).

35 USC 112(f) states:

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.

The scope of such an element is limited to only the structure, materials, or acts described in the specification as corresponding to the claimed function and equivalents thereof at the time the patent issues.

A long line of cases states that the use of the word “means” in a claim element creates a rebuttable presumption that 35 USC 112(f) applies and, conversely, that failure to use “means” also creates a rebuttable presumption that 35 USC 112(f) does not apply. The presumption that 35 USC 112(f) does not apply can be overcome if it can be shown that the claim terminology does not connote sufficiently definite structure for the limitation.

The *en banc* Federal Circuit on June 16, 2015, concluded in *Williamson v. Citrix Online LLC*, 792 F.3d 1339 (Fed. Cir. 2015) that a heightened burden for overcoming a presumption under 35 USC 112(f) is “unjustified” and the court overruled precedent characterizing as “strong” the presumption that a limitation lacking the word “means” is not subject to 35 USC 112(f). The presumption is now to be applied without requiring any heightened evidentiary showing and without a requirement that “the limitation essentially is devoid of anything that can be construed as structure.” Thus, after *Williamson*, there is no longer a “bright line” test as to when 35 USC 112(f) will be invoked. The bar to invoke functional claiming analysis has been lowered.

The new standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure. For example, if a claim term fails to recite sufficiently definite structure or recites a function without reciting sufficient structure for performing that function, that claim term will be construed under 35 USC 112(f). Also, under 35 USC 112(f), the structure for performing the function (e.g., algorithm) will need to be disclosed in the specification and linked to the function or the claim will be found to be indefinite.

In the USPTO, the Examination Guidance and Training Materials for 35 USC 112(f) limitations include 3-Prong Analysis for “means-type” limitations. See MPEP 2181. Under this guidance, 35 USC 112(f) is invoked on an element-by-element basis if:

(A) the claim limitation uses the term “means” or a term used as a substitute for “means” that is a generic placeholder;

(B) the term “means” or the generic placeholder is modified by functional language, typically linked by the transition word “for” (e.g., “means for”) or another linking word or phrase, such as “configured to” or “so that;” AND

(C) the term “means” or the generic placeholder is not modified by sufficiently definite structure or material for performing the claimed function.

Failure to meet the 3-prong analysis simply means that the claim limitation will not be interpreted under 35 USC 112(f) as a means-plus-function limitation. See MPEP 2181(I).

The term “means” without functional language raises a rebuttable presumption that the claim element is to be treated under 35 USC 112(f). The presumption is rebutted when the function is recited with sufficient structure or material within the claim itself to entirely perform the recited function.

Conversely, absence of the term “means” with functional language raises a rebuttable presumption that the claim element is not to be treated under 35 USC §112(f). The presumption is rebutted when the claim element (1) recites a generic placeholder for structure or material; (2) recites a function; and (3) does not recite sufficient structure or material to perform the function.

Terms that represent only non-structural elements such as information, data, instructions, and software per se would not serve as substitutes for “means”, because the terms do not serve as placeholders for structure or material.

In cases where it is unclear whether 112(f) is invoked, the claim may be rejected under 35 USE 112(b) as being indefinite. This is particularly an issue where programmed computer functions require a computer implemented with an “algorithm” to perform the function. *See Halliburton Energy Services, Finisar, Noah Systems v. Intuit*

If a claim uses “step for” then 35 USC 112(f) is presumed to apply; the term “step” or “step of” alone does not invoke 35 USC 112(f) even if it parallels a “means + function” claim.

Turning now to claim elements:

#### SCANNER

This limitation presumptively does not fall under § 112(f) because the word “means” is not used. Also, this limitation connotes sufficient definite structure that has a well understood structural meaning to a person skilled in the relevant art to avoid §112(f) treatment. In the MIT case, the Federal Circuit did not dispute the district court’s finding

that the term “scanner” is not a means-plus-function limitation. In fact, the Federal Circuit construed the term to require relative movement between a scanning element and the object being scanned.

#### DISPLAY MEANS

Although this limitation includes the word “means,” an argument can be made that “display” connotes sufficient definite structure that has a well understood structural meaning to a person skilled in the relevant art to avoid §112(f) treatment. The question is whether the claim recites *sufficient* structure to perform the claimed function. Examples of “means” limitations that were found by the Federal Circuit not to fall under § 112(f) include “baffle means” and “perforation means.” In these cases, the Court found the words “baffle” and “perforation” to constitute sufficient structure. This limitation is not addressed in the MIT case.

If the word “means” was not used in this limitation, the analysis would be similar to that for the “scanner” limitation.

#### AESTHETIC CORRECTION CIRCUITRY

This limitation presumptively does not fall under §112(f) because the word “means” is not used. In the MIT case, the district court found this limitation to be a means-plus-function limitation, but the Federal Circuit disagreed (with a strong dissent by Judge Michel). In the MIT case, the Federal Circuit found that the word “circuitry,” by itself, connotes structure, and the court identifies several dictionary definitions in support thereof. A key aspect of the analysis is whether the term “circuitry,” when combined with a description of the function of the circuitry, connotes sufficient structure to one of ordinary skill in the art. After *Williamson*, it would be easier to show that “circuitry” does not indicate specific structure as “circuitry” likely does not have a well understood structural meaning to a person skilled in the relevant art to avoid §112(f) treatment.

#### COLORANT SELECTION MECHANISM

This limitation presumptively does not fall under §112(f) because the word “means” is not used. *Williamson*, however, explains that other words may have the same effect as the word “means”:

“Module” is a well-known nonce word that can operate as a substitute for “means” in the context of § 112, para. 6. As the district court found, “‘module’ is simply a generic description for software or hardware that performs a specified function.” J.A. 31. Generic terms such as “mechanism,” “element,” “device,” and other nonce words that reflect nothing more than verbal constructs may be used in a claim in a manner that is tantamount to using the word “means” because they “typically do not connote sufficiently definite structure” and therefore may invoke § 112, para. 6. *Mass. Inst. of Tech. & Elecs. for Imaging, Inc. v. Abacus Software*, 462 F.3d 1344, 1354 (Fed. Cir. 2006); see generally M.P.E.P. § 2181.

Therefore, claim limitations using these terms are construed as if the term “means” was used. In the MIT case, the Federal Circuit agreed with the district court and found this limitation to fall under §112(f) because there is no generally understood meaning of the phrase “colorant selection mechanism,” and because the term has no dictionary definition and was not defined in the specification.

This problem is based on three PTAB cases and one Federal Circuit case: *Ex Parte Olson*, Appeal 2017-006489 (PTAB Mar. 25, 2019); *American Axle & Manufacturing v. Neapco Holdings LLC*, 2018-1763 (Fed. Cir. 2019); *Ex Parte Fautz*, Appeal 2019-000106 (PTAB May 15, 2019); and *Ex Parte Savescu*, Appeal 2018-003174 (PTAB April 1, 2019).

1. *Ex Parte Olson*, Appeal 2017-006489 (PTAB Mar. 25, 2019)

Eligible.

The claims at issue recite a method of registering a catheter navigation system to a three-dimensional image.

The Board concluded that the claims recite a judicial exception in the form of a mathematical concept but that the claims recite “additional limitations which focus on addressing problems arising in the context of registering a catheter navigation system to a three-dimensional image in connection with cardiac procedures” where the catheter navigation system is a “particular machine” that is “integral to each of the claims at issue.”

“We conclude that these limitations integrate the recited judicial exception of mathematical concepts into a practical application. These additional elements apply the thin plate splines algorithm, weighted basis functions, and error functions recited in the claims in a meaningful way...by accounting for non-linearities and inhomogeneities in the catheter navigation system and reduce errors in the localization field.”

2. *American Axle & Manufacturing v. Neapco Holdings LLC*, 2018-1763 (Fed. Cir. 2019)

Ineligible.

The claims at issue recite a method for manufacturing a drive shaft by providing a hollow shaft and positioning a liner within the shaft in a location that dampens vibrations.

The Federal Circuit concluded that the claims merely recite a natural law:

[T]he claims’ general instruction to tune a liner amounts to no more than a directive to use one’s knowledge of Hooke’s law, and possibly other natural laws, to engage in an ad hoc trial-and-error process of changing the characteristics of a liner until a desired result is achieved.

The claims here simply instruct the reader to tune the liner—a process that, as explained above, merely amounts to an application of a natural law

(Hooke's law) to a complex system without the benefit of instructions on how to do so.

The claiming of a natural law runs headlong into the very problem repeatedly identified by the Supreme Court in its cases shaping our eligibility analysis... "[a] patent is not good for an effect, or the result of a certain process, as that would prohibit all other persons from making the same thing by any means whatsoever."

[A] claim to a natural law concept without specifying the means of how to implement the concept is ineligible under section 101.

3. *Ex Parte Fautz*, Appeal 2019-000106 (PTAB May 15, 2019)

Eligible.

The claims at issue recite a magnetic resonance tomography apparatus that optimizes the signal-to-noise ratio from the reception coils.

The Board concluded that the claims recite a judicial exception in the form of a mathematical concept as the claims recite three mathematical formulas and four calculations that use those formulas.

However, the Board concluded that the claims recite additional elements that reflect an improvement to a technology as the invention involves surface coils to solve the technical problem of improving sensitivity correction in MR tomography devices and thus integrates the recited mathematical concepts into a practical application including determining each single coil's reception sensitivities and using the coil's physical properties in the analysis.

4. *Ex Parte Savescu*, Appeal 2018-003174 (PTAB April 1, 2019)

Ineligible.

The claims at issue recite a method for creating a life cycle workflow for a project. The method creates a project workflow on a server and provides a webpage with project details.

The Board concluded that the claims recite a judicial exception in the form of a method of organizing human activity as the claims recite the steps that a person would perform when managing and planning a project.

The Board further determined that the claims do not integrate the exception into a practical application or provide an inventive concept as the additional limitations merely

add generic computer activity to deliver web pages and store data. The recited server merely links the abstract idea to a computer environment without reciting a technological improvement to how the recited project-detail pages are created.

This problem is based on *In re Curtis*, which was decided by the Federal Circuit in 2004.

The applicable law is 35 USCS § 112(a), which states:

(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.

The Board ruled that the applicant was not entitled to the benefit of the filing date of the '488 patent in any event because that application did not provide an adequate written description of the later-claimed genus of friction enhancing coatings. The Board determined that MCW was the only friction enhancing coating disclosed expressly or inherently in the '488 patent and, therefore, "it did not provide written description support for the later-claimed, generic subject matter of the claims under appeal."

Claims found in a later-filed application are entitled to the filing date of an earlier application if, *inter alia*, the disclosure in the earlier application provides an adequate written description of the later-filed claims under 35 U.S.C. §112(a). This requires the disclosure in the earlier application to reasonably convey to one of ordinary skill in the art that the inventors possessed the later-claimed subject matter when they filed the earlier application. To fulfill the written description requirement, the patent specification 'must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.' *Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1566. One of ordinary skill in the art would read the disclosure in the '962 Application and conclude that it does not describe the genus of friction enhancing coatings claimed in the application.

*In re Curtis*, 354 F.3d 1347 (Fed. Cir. 2004)

This problem is based on *Catalina Marketing International, Inc. v. CoolSavings.Com, Inc.* decided by the Federal Circuit in 2002. Whether to treat the preamble of a claim as a limitation requires review of the entire patent to determine what the inventors actually invented. In general, a preamble limits an invention only if it recites essential structure or steps or is “necessary to give life, meaning, and vitality to the claim.” In this case, the phrase “at a plurality of terminals located at pre-designated sites such as consumer stores” wasn’t relied upon to distinguish the invention over the art of records, nor is it essential to understand the limitations or terms in the body of the claim. The claim body defines a structurally complete invention. Furthermore, deletion of the disputed phrase does not affect the definition or structural operation of the terminal. Therefore, the disputed language does not limit claim 1.

In this case, the Federal Circuit found that the District Court erred in its construction of claim 1 because the phrase “at a plurality of remote terminals located at pre-designated sites such as consumer stores,” which appears in the abstract of the claim, did not limit claim 1. To hold otherwise would impose a method limitation on an apparatus claim without justification (the phrase "located at predesignated sites such as consumer stores" required designation of the physical site of the terminal before location of the terminal at a point of sale location). See *Catalina Marketing International, Inc. v. CoolSavings.Com, Inc.* 289 F.3d 801, 62 U.S.P.Q. 1781 (Fed. Cir. 2002).

Another case where the Federal Circuit held that the preamble did not limit the claim is *IMS Tech., Inc. v. Haas Automation, Inc.* decided by the Federal Circuit in 2000. There the Court held that when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention, the preamble is not limiting. 206 F.3d 1422, 1434 (Fed. Cir. 2000). And, in *STX, LLC v. Brine, Inc.*, the Court likewise held that a preamble is not limiting where it merely extols benefits or features of the claimed invention and does not limit the claim scope without a clear reliance on those benefits or features as patentably significant. 211 F.3d 588, 591 (Fed. Cir. 2000).

In contrast, the Federal Circuit has also found the preamble to be limiting in cases such as *Pitney Bowes, Inc. v. Hewlett-Packard Co.*:

Here, the preamble is "necessary to give life, meaning, and vitality" to the claim. *Kropa v. Robie*, 187 F.2d at 152, 88 U.S.P.Q. (BNA) at 480-81. The preamble statement that the patent claims a method of or apparatus for "producing on a photoreceptor an image of generated shapes made up of spots" is not merely a statement describing the invention's intended field of use. Instead, that statement is intimately meshed with the ensuing language in the claim. For example, both independent claims conclude with the clause "whereby the appearance of smoothed edges are given to the generated shapes". Because this is the first appearance in the claim body of the term "generated shapes", the term can only be understood in the context of the preamble statement "producing on a photoreceptor an image of generated shapes made up of spots". Similarly, the term "spots" is initially used in the preamble to refer to the elements that make up the image of generated shapes that are produced on the photoreceptor. The term "spots" then appears twice in each of the independent claims. That the claim term "spots" refers to the components that together make up the images of generated shapes on the photoreceptor is only discernible from the claim preamble. In such a case, it is essential that the court charged with claim construction construe the preamble and the remainder of the claim, as we have done here, as one unified and internally consistent recitation of the claimed invention.

*Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298 (Fed. Cir. 1999)

Also, in *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, the Federal Circuit ruled that clear reliance by the applicant on the preamble during prosecution to distinguish the claimed invention from the prior art. Such reliance transformed the preamble into a claim limitation because it indicated use of the preamble to define, in part, the claimed invention. 246 F.3d 1368, 1375 (Fed. Cir. 2001). As a last example, the Federal Circuit ruled in *Corning Glass Works v. Sumitomo Electric U.S.A., Inc.*, that when reciting additional structure or steps underscored as important by the specification, the preamble may operate as a claim limitation. 868 F.2d 1251, 1257 (Fed. Cir. 1989).

This problem is intended to illustrate what the Federal Circuit refers to as the “disclosure-dedication rule,” which is discussed in detail in Johnson & Johnston v. R.E. Service, 285 F.3d 1046 (Fed. Cir. 2002), and Toro v. White Consolidated Industries, 383 F.3d 1326 (Fed. Cir. 2004). Under this rule, subject matter that is disclosed in the specification, but not claimed, is dedicated to the public.

There is no literal infringement of the claim by Topcopy. However, the claim was not amended during prosecution and therefore there is no presumption that there was a surrender of equivalents. Could Lynn Vantor succeed in suing Topcopy for infringement under the doctrine of equivalents?

In the Johnson case, the Federal Circuit explained that “a patentee cannot narrowly claim an invention to avoid prosecution scrutiny by the PTO, and the, after patent issuance, use the doctrine of equivalents to establish infringement because the specification discloses equivalents.” The court reasoned that to find otherwise would be to encourage applicants to present a broad disclosure but file narrow claims, to avoid examination of broader claims. The court further explained that the scope of a patentee’s exclusive right is defined by the claims, and the doctrine of equivalents cannot be used to recapture subject matter deliberately left unclaimed. Judge Rader in his concurrence noted that the patent disclosure expressly admitted that other options were available yet did not claim them and was barred for recapturing equivalent subject matter that was disclosed but not claimed.

In the Toro case, the Federal Circuit explained that unclaimed features need not comply with the requirements of 35 U.S.C. 112 to be subject to the disclosure-dedication rule. Therefore, a mere mention of a particular unclaimed encoding method, without a detailed description of how such a method is implemented in the invention, could be sufficient to have the use of that unclaimed method with respect to the claimed invention be dedicated to the public.

What should Pat Attorney advise Lynn Vantor?

Pat Attorney should explain that, given current case law, it is unlikely that Topcopy would be found to infringe U.S. Patent No. 9,876,543, either literally or under the doctrine of equivalents. However, if the patent issued less than two years ago, Pat Attorney could advise Lynn Vantor that a broadening reissue application may be filed to try to obtain protection of the unclaimed features. (This assumes that the failure to claim those features did not involve deceptive intent.)

What could Pat Attorney have done differently?

(1) Pat Attorney could have filed a continuation application during the pendency of the original application to ensure the opportunity to have broader claims examined. This

strategy often is used to preserve to the opportunity to seek claims directed to a competitor's design-around of a patented invention.

(2) Pat Attorney could have included claims of varying scope in the original application, and claimed some elements using means/step-plus-function language to cover the different examples disclosed in the specification.

This problem is based on *Elcommerce.com, Inc. v. SAP AG* 745 F.3d 490 (Fed. Cir. 2014) the court reiterated that “[p]recedent elaborates that ‘[u]nder 35 U.S.C. § 112 ¶ 2 and ¶ 6, therefore, ‘a means-plus-function clause is indefinite if a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim. ... The amount of detail that must be included in the specification depends on the subject matter that is described and its role in the invention as a whole, in view of the existing knowledge in the field of the invention.’”

This case concerned a system for monitoring a supply chain of components in order to coordinate and stabilize the supply of components for various producers. The claim refers to algorithms performed by the system. While the application did not provide an explicit definition of these algorithms, the court found that it did contain textual descriptions of the system and examples that, contrary to the finding by the District Court, *could* provide sufficient support for the claims. Whether the claims were sufficiently supported would depend on how they would be understood by a person having ordinary skill in the art (PHOSITA).

SAP, however, had not presented any evidence regarding the knowledge of persons of skill in the art or what such a person would have known upon reading the specification. “[It cannot] be assumed that, without evidence, a general purpose judge could ascertain the position of persons of skill in the art and conclude that there is not a shred of support for any of the... means-plus-function claim limitations.” Consequently, the case was remanded to the District Court for fact finding on what a PHOSITA.

In a partially concurring opinion, Judge Wallach stated that he would have decided the case on different grounds, “the asserted means-plus-function claims in this case are directed to a special-purpose computer and thus require a corresponding algorithm in the specification. As in [*Noah Systems, Inc. v. Intuit Inc.*, 675 F.3d 1302 (Fed.Cir.2012)], no algorithm is disclosed. Such ‘total absence of structure’ renders the claims invalid for indefiniteness, and expert testimony is neither required nor permitted to supply the absent structure.”

*Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (2015) is consistent with this opinion.

Structure disclosed in the specification qualifies as “corresponding structure” if the intrinsic evidence clearly links or associates that structure to the function recited in the claim. .... Even if the specification discloses corresponding structure, the disclosure must be of “adequate” corresponding structure to achieve the claimed function. ... Under 35 U.S.C. § 112, paras. 2 and 6, therefore, if a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim, a means-plus-function clause is indefinite. ....

[T]his court has consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor. We require that the specification disclose an algorithm for performing the claimed function. The algorithm may be expressed as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure. (792 F.3d at 1352, citations omitted).

Prior to *Williamson*, there had been a strong presumption that a claim term that did not use the word “means” was not to be interpreted under 35 U.S.C. §112, paragraph 6 (now section 112(f)). *Williamson* weakened this presumption, “When a claim term lacks the word “means,” the presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’” (792 F.3d at 1349, citation omitted).

The presumption resulting from use of the word “means,” however, has not been weakened. “The converse presumption remains unaffected: ‘use of the word ‘means’ creates a presumption that § 112, ¶ 6 applies.’” (Id. citation omitted). Thus, because the claim terms in *Elcommerce* all used the word “means,” they remain presumptively means-plus-function claim terms.

This problem is intended to highlight the 2007 Supreme Court decision in *KSR International Co. v. Teleflex Inc.*

Prior to *KSR*, the applicant could have argued that the obviousness rejection was deficient, because a person of ordinary skill in the art would find no teaching, suggestion, or motivation (TSM test) in the cited references, or in the nature of the problem, to combine the teachings of the references in the manner of the claimed invention. The TSM test was applied fairly rigidly.

After *KSR*, there is now a more flexible approach to rejecting a claim over a combination of references. A TSM analysis is not required but may be used to provide “helpful insight.” The examiner now is permitted to take into account the creativity and inferences that a person of ordinary skill would have.

The following are suggestions for possible arguments – there is no correct or preferred answer at this stage.

1. **Secondary Considerations:** Use a Rule 132 Declaration to present evidence of:
  - (a) commercial success – present sales figures showing that 100,000 units of electronic cat toys have been sold in the past year, without any promotional advertisement, whereas the sales of other types of electronic cat toys usually are in the range of 10,000 units per year; and/or
  - (b) long-felt need and failure of others – present evidence (e.g., a statistical study) of the many different types of electronic cat toys on the market, none of which have been above to amuse cats for more than an average of 30 seconds, whereas the claimed cat toy amuses cats for an average of 10 minutes. A favorable article in *Consumer Reports* or *Cat Lovers* magazine would also be helpful, especially if the article points out the shortcomings of other cat toys compared to the claimed cat toy; and/or
  - (c) copying by competitors – present evidence that a competitor, which has been developing various types of cat toys for years, made knock-offs of the claimed cat toy and is selling them.
  
2. **Person of Ordinary Skill in the Art:** Argue that electronic devices are not within the knowledge of a person of ordinary skill in the art of cat toys, and therefore a POSITA would not look to use a sophisticated motion sensor system with a toy, and further would not look to control an electronic bird using an output from a motion sensor system.

**3. Lack of Substantial Evidence of Obviousness:** Argue that the examiner has not articulated a sufficient reason why a POSITA would be motivated to select and combine the cited references, and point out that the examiner instead has made only conclusory statements (“basic knowledge and common sense”) in support of the obviousness rejection. Under the Administrative Procedures Act, an agency such as the USPTO must provide an administrative record of its findings and conclusions and the objective reasons behind those findings and conclusions, in order for meaningful judicial review. (See *In re Sang Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002).) Even if the level of skill of a POSITA is high, the reasoning why the POSITA would have been motivated to select and combine the cited references must be articulated. (See *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998).) In short, prior to *KSR*, the prior needed to provide the reason to combine; after *KSR*, the examiner can provide rationale independent of the references so long as it is reasonable.

**4. Obvious to Try:** Argue that a POSITA would not find it obvious to try a motion sensor system in an electronic cat toy. Unlike situations where there are only a small number of predictable solutions to a problem, there are an enormous number of ways in which a cat can be amused. Therefore, without the use of impermissible hindsight based on the teachings of the claimed invention, a POSITA would find no suggestion to produce an electronic cat toy in the manner of Claim 1.

**5. Prior Art Teaches Away:** Argue that the clock is a self-contained unit and does not run based on external controls. Therefore, this would teach away from providing a signal from an external controller to control the workings of the clock. It would be helpful if the text of the cuckoo clock article supported the teaching away argument.

Yes, said the Northern District of Ohio in *Molten Metal Equipment, Innovations, Inc. v. Metallics Systems Co.* 2001 U.S. Dist. LEXIS 1969 (N.D. Ohio 2001).

“In the present case...the element added to one claims appears in the other claims of the patent. The question is whether, assuming that Festo’s complete bar rule applies to the ‘non-volute’ element in claim 19...a broader range of equivalents should be allowed when the ‘non-volute’ element appears in other claims. ‘Under the doctrine of equivalents, [there is] no reason to assign different ranges of equivalents for the identical term used in different claims in the same patent, absent an unmistakable indication to the contrary.’ *American Permahedge, Inc. v. Barcana, Inc.* 105 F.3d 1441, 1446 (Fed. Cir. 1997). Thus, if Festo applies to claim 19, and if ‘non-volute’ as it appears in that claim is entitled to no range of equivalents, then ‘non-volute’ as it appears in *any* claim is entitled to no range of equivalents.” (Emphasis in original)

*Molten Metal Equipment, Innovations, Inc. v. Metallics Systems Co.* 2001 U.S. Dist. LEXIS 1969 (N.D. Ohio 2001).

This problem is based on 35 U.S.C. § 102(b)(2)(B)

35 U.S.C. § 102(b) EXCEPTIONS.—

(1) DISCLOSURES MADE 1 YEAR OR LESS BEFORE THE EFFECTIVE FILING DATE OF THE CLAIMED INVENTION.—A disclosure made 1 year or less before the effective filing date of a claimed invention shall not be prior art to the claimed invention under subsection (a)(1) if—

(B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

(C) the subject matter disclosed and the claimed invention, not later than the effective filing date of the claimed invention, were owned by the same person or subject to an obligation of assignment to the same person.

1) B's application can be cited as a prior art reference against A's application. It has an earlier effective filing date than A's application and A's application is under the AIA since it was filed after March 15, 2013. A's prior publication does not remove B's application as prior art because A's publication was for the generic idea, not for the specific invention. As interpreted by the USPTO, a generic publication is not sufficient to remove a later specific application as a prior art reference. (See Examination Guidelines for Implementing the First Inventor to File Provisions of the Leahy-Smith America Invents Act 78 FR 11077 Feb. 14, 2013).

2) Yes, B's application could not be cited against A's description of her invention because the description is the essentially the same as the description in her application.

3) Possibly. A's application would be under the first to invent law, not under the AIA. If she conceived of the invention before B (China is a member of the WTO) and she reduced her invention to practice or was diligent in doing so up to B's filing date, A could remove B's patent application as a prior art reference.

4) Only element C of B's application can be cited against A's application. (See 78 FR 11077)

5) A should file a declaration under 37 C.F.R. § 130(a) offering proof that B obtained the disclosed subject matter directly or indirectly from A.

6) No. A could get the benefit of the presentation by her supervisor using a declaration under 37 C.F.R. § 130(b). In this case, A would also need to file a declaration under rule 130(a).

7) Yes. At the time A filed her application, B had a duty to assign his invention to Tiny Corp. To do so, however, A would need to file a rule 132 Declaration stating that Tiny Corp. is a wholly-owned subsidiary of Colossal Corp. to prove that the claimed inventions were under a duty to assign to the same person.

This problem is intended to highlight the issues raised in the case of *Dynamic Drinkware v. National Graphics* (Fed. Cir. September 4, 2015).

The issue here is what is the effective prior art date of the Smith patent publications. In particular, the issue is what does the examiner have to show in order to maintain the rejection over the July 1, 2017 Smith patent publication and what does the applicant need to show to overcome the rejection.

To permit the use of the July 1, 2017 Smith patent publication as prior art, the examiner would need to show that the claims of the July 1, 2017 Smith patent publication are supported by the written description of the Smith provisional patent application, thus permitting the use of the Smith provisional patent application to anticipate any of the claims of the January 1, 2016 patent application.

At the outset, it is noted that there is not a presumption that a patent application is entitled to the benefit of the filing date of its provisional precursor. Indeed, the USPTO does not examine provisional patent applications as a matter of course and, accordingly, such a presumption is unjustified. *Dynamic Drinkware*. MPEP §211.05(I)(A), as well as established case law, clearly indicate that “because the PTO does not examine priority claims unless necessary, the Board has no basis to presume that a reference patent is necessarily entitled to the filing date of its provisional application.” (*Dynamic Drinkware*, citing *Power Oasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1305 (Fed. Cir. 2008)).

Also, a reference patent is only entitled to claim the benefit of the filing date of its provisional application if the disclosure of the provisional application provides support for the claims in the reference patent in compliance with 35 USC §112(a). (*Dynamic Drinkware*, citing *In re Wertheim*, 646 F.2d 527, 537 (CCPA 1981)). The *Dynamic Drinkware* court further stated that a “provisional application’s effectiveness as prior art depends on its written description support for the claims of the issued patent of which it was a provisional.” Note that the emphasis is on the support of the provisional application for the claims of the patent that claims priority to it – not whether the provisional itself anticipates the claim of the application against which it is applied as prior art.

In the present case, only the Smith provisional patent application has a prior art date prior to the filing date of the January 1, 2016 patent application. Since the Smith provisional patent application does not disclose the subject matter of any of the claims of the July 1, 2017 Smith patent publication, the July 1, 2017 Smith patent publication cannot be used as prior art. However, it appears that the August 1, 2016 Smith patent publication could be used as prior art with respect to claims 1 and 2 of the January 1, 2016 patent application. In that case, the disclosure of the Smith provisional patent application would be compared to the claims of the January 1, 2016 patent application. The August 1, 2016

Smith patent publication could only be used to support a rejection of a claim of the January 1, 2016 patent application that is disclosed by the Smith provisional patent application disclosure.

Note that the examiner would satisfy his initial burden by making the rejection over the July 1, 2017 Smith patent publication. The Applicant would then argue that the July 1, 2017 Smith patent publication is not prior art. The burden would shift to the examiner to show the support in the Smith provisional patent application for the subject matter claimed in the July 1, 2017 Smith patent publication. The same burden shifting would apply if the examiner cited the August 1, 2016 Smith patent publication as prior art.

This problem is based on *NTP, Inc. v. Research in Motion, Ltd.*, decided by the Federal Circuit in 2005.

Section 271(a) of Title 35 sets forth the requirements for a claim of direct infringement of a patent. It provides:

Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefore, infringes the patent.

The question before us is whether the using, offering to sell, or selling of a patented invention is an infringement under section 271(a) if a step of the patented invention is located or performed abroad.

The situs of the infringement "is wherever an offending act [of infringement] is committed. The ordinary meaning of "use" is to "put into action or service." *Webster's Third New International Dictionary* 2523 (1993). The few court decisions that address the meaning of "use" have consistently followed the Supreme Court's lead in giving the term a broad interpretation. E.g., *Roche Prods., Inc. v. Bolar Pharm. Co.*, 733 F.2d 858, 863 (Fed. Cir. 1984), superseded-in-part by 35 U.S.C. §271(e) (holding that testing is a "use"). A method or process consists of one or more operative steps, and, accordingly, "it is well established that a patent for a method or process is not infringed unless all steps or stages of the claimed process are utilized."

Because a process is nothing more than the sequence of actions of which it is comprised, the use of a process necessarily involves doing or performing each of the steps recited. We therefore hold that a process cannot be used "within" the United States as required by section 271(a) unless each of the steps is performed within this country.

*NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282 (2005)

An example claim that would have been infringed by RIM:

1. A method for wireless transmission of an email message from a PC to a wireless handheld device comprising:

- transmitting an email message from a PC to a gateway switch via a wireline;
- transmitting said email message from said gateway switch, **destined for** an interface switch; and
- receiving said email message from said interface switch at said wireless handheld device via a RF transmission network.

The US Supreme Court recently addressed a different infringement scenario in *Life Technologies Corp. v. Promega Corp.* 580 U.S. \_\_\_\_, slip op. at 1 (2017) which held that supplying **a single component** of a multicomponent invention for manufacture abroad does not give rise to infringement under §271(f)(1). Section 271(f)(1) of Title 35 states the following:

Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

Ann may be able to remove Len's article as an exception under 35 U.S.C. § 102(b)(1)(A) if she can prove that the newspaper article was derived from her work. To prove this, she would need to file a declaration under 37 C.F.R. § 130(a) providing proof that she had conceived elements A, B and C and had disclosed them in confidence to Len at CES. She would need to disclose documentary evidence, for example, signed and dated notebook pages, showing her prior invention. She would also need to show that the subject matter of Len's article was derived from the information she disclosed to him.

If Ann is successful in removing Len's article, she may be able to use it to limit the application of Trip's public sale by excluding elements A and B of Trip's system. To do this, she would need to file a declaration under 37 C.F.R. § 130(b) showing that elements A and B of Len's article are the same as elements A and B of her application and that Len's article predated Trip's offer to sell the system on the Internet. If successful, this would remove elements A and B of Trip's system from being considered as prior art against Ann's application under 35 U.S.C. § 102(b)(1)(B).

HOMEWORK PROBLEM I SPECIFICATION AND CLAIM DRAFTING

- 1) Move description of the problem from the Background to the Detailed Description. Anything in the Background section can be cited as prior art. The Examiner can use the statement of the problem to provide the reason for combining references that teach claim elements.
- 2) Move the description of the prior art from the Background to the described prior art does not reference any particular patent publication or non-patent literature. It may be admitting more than is actually in the prior art. Also, the description of the prior art should be recast as options that a skilled person might consider, without admitting that it has already been done.
- 3) The "has to" language in paragraph [0006] is too restrictive. It should be replaced by a less restrictive term such as "should."
- 4) Delete "Preferably," in paragraph [0009]. This could be interpreted as the preferred embodiment.
- 5) Add a figure and text describing a processing environment including a processor, memory, a display screen, etc. and more description of the operation of the system to ensure that the claims are enabled. Add a computer-readable medium to support CRM claims. Add flow-charts to support method claims.
- 6) Change "required" in paragraph [0016] to "selected."
- 7) The term "un-launched state" in claim 1 does not have explicit basis in the specification.

HOMEWORK PROBLEM II – AMENDMENT DRAFTING

This application is based on *Core Wireless Licensing v. LG Electronics* 880 F.3d 1356 (Fed. Cir. 2018). The court found these claims to be patent eligible under step 2(a) of the Mayo-Alice test. In particular, the claims were found to be directed to a particular improved user interface for a computing device and, thus, were not directed to an abstract idea.

In response to the section 101 rejection, applicant should argue that the claims are not similar to *Dietgoal* which concerned the display of a graphical user interface for meal planning. Instead these claims are more similar to *Enfish*, *Visual Memory* and *Finjian* as they concern the way in which the computing device displays applications, not how a particular application is displayed. Furthermore, these claims appear to be patentable under the 2019 Patent Eligibility Guidance as they are similar to Example 37 related to “Relocation of Icons on a Graphical User Interface.” The claims are somewhere between claim 1 and claim 2 of Example 37 - both of which the PTO indicated would be patentable. If “the computing device configured to ... display ... an ... application summary ... wherein: the application summary displays a limited list of data offered within the one or more applications” was considered to be a mental step as in claim 1 of Example 37, the invention is nonetheless integrated into a practical application that allows the quick access to the summary information when the application is in the un-launched state. Alternatively, that claim element may be seen as not relating to a mental process at all as the human mind does not use menus to interact between applications in launched and unlaunched states. Thus, it would be like claim 2 of Example 37. Similar arguments can be made for claim 2 of this application.

In response to the section 112 rejection, applicant could cite In *HTC Corp. v. IPcom GmbH*, 667 F.3d 1270 (Fed. Cir. 2012). This was a section 112(f)/112(b) issue in which The court held that, “[a]lthough the specification does not literally disclose a processor and transceiver, a person skilled in the art would understand that the mobile device would have to contain a processor and transceiver.” Thus, as long as some structure is disclosed for a limitation under Section 112(f), it may be possible to use the knowledge of the skilled person to supply any substructures needed to satisfy the definiteness requirement of Section 112(b). While this is a different context, section 112(a) versus sections 112(f) and 112(b), the underlying commonality is that the skilled person would understand that a mobile device includes a processor and memory.

Alternatively, in response to the section 112 rejection, the “processor” and the “memory” could be replaced by “computing device.”

With respect to the section 103 rejection, the examiner admits that *Blanchard* does not disclose “each of the data in the list are selectable to launch the respective application and enable the selected data to be seen within the respective application” and takes official notice to find this limitation. The official notice, however, is not sufficient. While it may be known to launch an application from a menu, it is not known to “launch the respective application and enable the selected data to be seen within the respective application.”

HOMEWORK PROBLEM III – INTERVIEW PREPARATION

Agenda:

- 1) Brief description of the subject matter of the application.
- 2) With respect to the section 101 rejection, discussion of paragraph [0013] showing an improvement to computer-related technology. Discussion of the differences between the subject application and *Dietgoal*. Discussion of similarities to *Trading Technologies*.
- 3) With respect to the section 112 rejection, discussion of what one of ordinary skill in the art would understand from the use of “computing device” in paragraph [0006].
- 4) With respect to the section 103 rejection, discussion of Official Notice.

The use of initials by the examiner indicates that he is an assistant examiner so his supervisor must be present on the interview. As the inventor does not appear to have a good understanding of patent procedure, it may be better if he does not attend.