

# “STATE OF THE ART” VITIATION OF THE GRACE PERIOD\*

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## Abstract

Does the *Leahy Smith America Invents Act* of 2011 provide a broad grace period to save patentability of an invention published by the inventor before filing where a third party in the interval between such publication and filing publishes disclosure of an *obvious variant* of the claimed invention?

To the extent that the publication of the obvious variant renders the claimed invention obvious, and given that the new law measures the state of the prior art for determining obviousness as of the *filing date*, does the heightened state of the art as of the *filing date* render a previously nonobvious invention unpatentable under 35 USC §103, *independent of the question whether there exists an otherwise meaningful grace period?*

*Independent of (but complementary to) the answer to the above question is the viewpoint of Robert A. Armitage (shared by Patent Office guidance) that denies a grace period to an intervening third party publication of an obvious variant of the claimed invention because the grace period only exempts “[a] disclosure \*\*\* of a claimed invention.”*

A test case of statutory interpretation will help determine whether there remains a viable grace period, or only the more limited grace period suggested by the literal statutory wording. What will the Federal Circuit do when it first confronts this issue?

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\*Background and author information are found at the final two pages of this paper.

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## I. OVERVIEW

During the five year gestation of the several bills that eventually formed the *Leahy Smith America Invents Act* enacted in 2011, there was a mythology that the “grace period” of the historic first inventor system was retained to permit *prospective* reliance on that system so that, e.g., universities could publish first and then file later (within the one year grace period). The mythology was shattered principally by Robert A. Armitage, perhaps the single most important draftsman of the series of bills that wound up as the new patent law. The gist of the argument to deny a broad grace period boiled down to the statutory wording that provided a grace period for the claimed invention, but not for trivial variations subsequently published by third parties.

Heated discussions took place in the year following enactment of the legislation; the discussions focused upon the specific wording of the definition of the grace period in Section 102. While the Patent Office fully signed on to the Armitage interpretation in their guidelines, the hope seemingly remained for a test case at the Federal Circuit that would somehow bypass the literal wording of the statute to reach the conclusion that the grace period had, after all, survived to continue living under the *Leahy Smith America Invents Act*.

What the grace period proponents overlooked was the overall statutory scheme, particularly, Section 103, which defines the state of the art for determining nonobviousness as of the *filing date* which seemingly confirms the prior art status of third party publications in the interval between the inventor’s first divulgation and his filing date.

Thus, a heretofore seemingly minor change in the definition of nonobviousness under 35 USC § 103 as part of the *Leahy Smith America Invents Act* has set the time frame for the obviousness-critical date to determine the “state of the art” to the *actual*, effective filing date, downstream from earlier “grace period” publications and downstream from the resultant buzz within the scientific community to the point that an invention, nonobvious at the time it was made, is now clearly obvious when measured against the filing date-measured state of the art.

It has heretofore been well known that there is a statutory one year grace period under the *Leahy Smith America Invents Act* that exempts prior art publications of the inventor and others following the inventor’s first publication of the invention. It is also well known that under leadership of Robert A. Armitage –

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and “codified” in Patent Office guidance – that a third party’s publication of an *obvious variant* of the inventor’s first publication is *not* excused under the grace period. This theory has yet to reach a test case at the Federal Circuit.

But, the date for setting the “state of the art” is a seemingly insoluble grace period problem for those relying upon the one year grace period: An inventor’s publication of the invention (or the subsequent publication by anyone else relating to the invention or any further independent creation) may form a part of the “state of the art” when such activity is prior to the effective *filing date*. This may then bar a patent to an invention that, at the time of the invention, was clearly nonobvious but – due to the intervening activities– became obvious as of the filing date – the metric for determination of the state of the art for obviousness under 35 USC §103 of the *Leahy Smith America Invents Act*.

This paper focuses upon the fact that under the literal wording of the new law whenever there is a publication by the inventor of his new work *before* the filing date that publication becomes a part of the state of the art when measured as of the *filing date*. Since the wording of the statute measures obviousness keyed to a state of the art as of the *filing date* the question for a case of first impression is whether the heightened level of the state of the art, given the inventor’s (or third party’s) publication before the *filing date*, renders any previously nonobvious invention, all of a sudden obvious – and hence unpatentable.

## II. STATE OF THE ART AS OF THE FILING DATE

### A. Changes Made by the New Law

A prime difference between the one year grace period under the 1952 Patent Act and the *Leahy Smith America Invents Act* is that the one year grace period in the 1952 law exempted all third party disclosures of the invention subsequent to the date of invention by the applicant *as part of the definition of prior art by excluding such third party disclosures*, whereas there is no general exclusion from the definition of prior art in the *Leahy Smith America Invents Act* but, instead, there is a separate grace period provision exempting only *certain* acts. Additionally, the wording of Section 103 of the *Leahy Smith America Invents Act* sets forth a definition for nonobviousness that is keyed to the “state of the art” as of the *filing date* and not the *invention date*. Both differences provide critical distinctions as to third party subject matter divulged during the one year grace period as to subject matter *different from* the claimed invention.

Under the 1952 Patent Act, otherwise prior art disclosures of third parties during the one year grace period were *excluded as prior art* under Section 102 and, as prior art for nonobviousness under Section 103 incorporates by reference the definition of prior art in Section 102, such otherwise prior art disclosures received a blanket prior art grace period exemption under Section 103.

### B. Filing Date *versus* Invention Date

Under the 1952 Patent Act, third party prior art events within the one year grace period did not apply if they occurred after the applicant’s *date of invention*: “A person shall be entitled to a patent unless — the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, *before the invention thereof by the applicant for patent*[.]” 35 USC §102(a)(1952 Patent Act)(emphasis added)

But, under the *Leahy Smith America Invents Act*, the parallel provision to Section 102(a) of the 1952 Patent Act makes *no* grace period exemption: “A person shall be entitled to a patent unless —the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention[.]” 35 USC § 102(a)(1)(Leahy Smith America Invents Act).

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The grace period in the *Leahy Smith America Invents Act* is found in 35 USC § 102(b)(1)(B):

“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 [35 USC § 102](a)(1) if — 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.” (emphasis added).

(A similar grace period exemption is provided in 35 USC § 102(b)(2) to exempt prior filed but later published disclosures in a third party’s patent application.)

Thus, one may question based upon the statutory wording whether there is any room for a “grace period” for subject matter *different from* the claimed invention which, as part of the state of the art, renders the claimed invention *obvious*.

### C. Two Different Reasons that Vitate the Grace Period

Based upon the statutory wording of the *Leahy Smith America Invents Act*, there are two *independent* reasons to question whether the grace period applies to a third party disclosure of an *obvious variant* of the claimed invention between the inventor’s first prior art divulgation and his filing date.

First, under the PTO guidance, the literal wording of the grace period statute only applies to a disclosure of the *same invention* and not an obvious variant. *See* § III, *Grace Period does not Literally Apply to Obvious Variants*.

Second, there is no indication in the legislative history that the “state of the art” to measure obviousness under 35 USC § 103 has anything to do with the grace period, given the statutory statement that obviousness is measured by the state of the art as of “the effective filing date of the claimed invention.” *See* § IV, *Grace Period does not Apply to the “State of the Art”*.

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A narrow interpretation of the grace period has been endorsed by the respected scholar, Professor Janice Mueller, in her treatise. § V-A, *Professor Mueller’s Interpretation of the Law*.

To understand why the grace period should not be relied upon, consider the following situations:

In the first instance, the new grace period under its literal wording does *not* exempt a third party publication of an *obvious variant* of the invention in the interval between the first dissemination of the information by the inventor and the inventor’s filing of his patent application. See § II, *Grace Period does not Literally Apply to Obvious Variants*.

Secondly, but perhaps even more important, the state of the art is measured as of the *filing date*. The “state of the art” determination is critical to determine whether an invention is obvious under 35 USC § 103, as opposed to old law where the state of the art was measured as of the *invention date*. See § III, *Grace Period does Not Apply to the “State of the Art”*:

Consider, for example, the situation where the inventor files his patent application *after* a scientific conference where he explains his invention. Under the law prior to 2011, the invention may well be nonobvious based upon the state of the art as of the date of *invention* (the standard under the old law). After the scientific conference the knowledge of the state of the art may have increased dramatically because of the inventor’s disclosure at the conference so that, *as of the subsequent filing date*, the state of the art now renders the invention obvious. *Id.*

The scholarship of Professor Janice Mueller supports the view that the *date* to measure state of the art may be critical to nonobviousness. See § V-A, *Professor Mueller’s Interpretation of the New Law*.

### III. STATUTORY WORDING DOES NOT COVER OBVIOUS VARIANTS

It is, of course, a given that under the *Leahy Smith America Invents Act* that the *identical* disclosure of the *same invention* before the applicant’s filing date by the inventor or a third party subsequent to the inventor’s publication may be excused as prior art under the limited grace period .

#### A. Armitage Theory Denying Grace Period for Obvious Variants

The literal wording of the grace period statute exempts from the prior art the disclosure of the “claimed invention” and does not extend to *different* subject matter:

“A disclosure \*\*\* of a claimed invention shall not be prior art to the claimed invention [as having been patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention] if \*\*\* the *subject matter disclosed* had, before such disclosure, been publicly disclosed by \*\*\* another who obtained the subject matter disclosed \*\*\* from the inventor \*\*\*.”

35 USC § 102(b)(1)(B)(integrating in brackets text from 35 USC § 102(a)(1)) (emphasis added).

Robert A. Armitage, undoubtedly the single most important person involved throughout the patent reform process, particularly when measured over the past generation, has provided a detailed argument supporting the narrow scope of the grace period. *Eli Lilly and Company [ ] Supplemental Comments to the United States Patent and Trademark Office [ ] Notice of Proposed Examination Guidelines Entitled: Examination Guidelines for Implementing the First-Inventor-to-File Provisions of the Leahy-Smith America Invents Act*, a supplemental submission to the *Request for Comments on the Examination Guidelines for Implementing the First-Inventor-to-File Provisions of the Leahy-Smith America Invents Act*, 77 Fed. Reg. 43759-43773 (July 26, 2012), on behalf of Eli Lilly and Company by its Senior Vice President and General Counsel, Robert A. Armitage, to the Honorable David J. Kappos, Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office, October 22, 2012.



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For anyone thinking of reliance upon the hope of a test case to overthrow the Patent Office interpretation, the Armitage submission should be a “must read”, a sobering reality check that a test case ruling against his position and that of the literal wording of the statute is far, far from a slam dunk proposition. *Id.*

### **B. Legislative History, Silence on Capitol Hill**

Quite logically, one may ask: What does the legislative history say about the “state of the art” being dated as of the filing date instead of the invention date? In terms of relevance to the current issue, there is little if anything said of relevance.

Undoubtedly the single most comprehensive, contemporaneous record of the Congressional activities leading up to the *Leahy Smith America Invents Act* is the material of Joseph Matal, at the time an important Senate staff member who currently serves as Associate Solicitor of the U.S. Patent and Trademark Office. His contemporary recollections of the years leading up to the enactment of the *Leahy Smith America Invents Act* are collected in a two part article. Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 Federal Circuit B. J. 435 (2012); *id*, *Part II of II*, 21 Federal Circuit B. J. 539 (2012).

The Matal documentation shows no recorded thought in either the House or the Senate as to the language chosen to implement the changes to Section 103 relevant to this section. The Matal analysis begins with a single sentence that is relevant: “The AIA amends § 103 so that a claimed invention’s obviousness is measured against the prior art that existed at the time of the invention’s effective-filing date, rather than at the time the inventor made it.” Matal first reports in in a section, . Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 Federal Circuit B. J. 435, 490 (2012)(citing. *Leahy Smith America Invents Act*, Pub. L. No. 112-129, sec. 3(c), § 103, 125 Stat. 284, 287 (2011)). Insofar as the substance of the changes to Section 103 relevant to this discussion, all that Matal reports as to legislative materials is the following: “The AIA Committee Report’s section-by-section analysis simply noted that ‘§ 103 is amended consistent with moving to a first to file system. \*\*\*’” *Id.* at 491 (footnote omitted).

#### IV. GRACE PERIOD DOES NOT COVER “STATE OF THE ART”

The grace period under the *Leahy Smith America Invents Act* does *not* apply to the period between the inventor’s first disclosure and the effective filing date of the application. Thus, for example, if the inventor makes the invention on Year (1), and publishes his invention at Year (2) and then under the one year grace period files his patent application at Year (3), obviousness is judged based upon the state of the art at Year (3), and neither the date of the invention at Year (1) nor the first publication of the invention at Year (2). The state of the art may have vastly changed at the filing date in Year (3) vis a vis either of the earlier dates of invention in Year (1) or the date of the grace period-exempt publication in Year (2). Indeed, given the publication of the invention in Year (2), it would be most surprising if the result is anything other than an enhanced knowledge of the state of the art which could render a once nonobvious invention obvious because of the higher level of knowledge of the state of the art.

Thus, as time passes, the state of the art may evolve to the point that later disclosures make an invention obvious which, prior to such later disclosures, would have been nonobvious. The date to determine the state of the art under the *Leahy Smith America Invents Act* has been move forward to the later *effective filing date* as opposed to the 1952 Patent Act which measures the state of the art as from the often much earlier date of invention. Thus, under the *new* standard of the *Leahy Smith America Invents Act* for determining nonobviousness of a claimed invention, the legal test under 35 USC § 103 is whether –

“the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious **before the effective filing date of the claimed invention** to a person having ordinary skill in the art to which the claimed invention pertains.”

This replaces the original statutory test for nonobviousness introduced in the 1952 Patent Act which, under its most recent statement before the new law, was found in 35 USC § 103(a) that asks whether –

“the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious **at the time the invention was made** to a person having ordinary skill in the art to which said subject matter pertains.”

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Under the new wording of Section 103, one may question whether there is any possibility or room for a grace period for such *different* subject matter, given that the state of the prior art is measured today as of the *filing date* and not the date of the applicant’s *invention*: Thus, is there any “grace period” that remains under the *Leahy Smith America Invents Act* as to the body of prior art literature available before the filing date which cumulatively establishes the “state of the art” for determining nonobviousness under 35 USC § 103?

### V. MAINSTREAM INTERPRETATION OF THE NEW LAW

#### A. Professor Mueller’s Interpretation of the Law

Professor Janice Mueller points out the traditional view that “[c]ourts should interpret the meaning of terms in patent claims as those terms would have been understood by a hypothetical person of ordinary skill in the art as of the effective filing date of the patent in question.” Janice M. Mueller, *MUELLER ON PATENT LAW*, Vol. 2, § 15.04[I] (Wolters Kluwer 2016)(footnote omitted). In her footnote, the issue under the new law is stated:

“The watershed *en banc Phillips* decision \*\*\* held that the temporal perspective for assessing the words in a patent claim is their ordinary and customary meaning to a person having ordinary skill in the art in question “at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*).

“This pre-America Invents Act of 2011 (AIA) statement apparently referred to the concept of a *prima facie* invention date based on construing the patent application’s filing date as the invention’s constructive reduction to practice date. [citation omitted]. The *Phillips en banc* decision did not explain the correct time frame for claim interpretation when the inventor could backdate her invention date from the filing date to her earlier conception date or actual reduction to practice date (assuming that the difference in dates would be material to the meaning of disputed claim terms).

“For post-AIA applications, the concept of “invention date” is largely irrelevant, so the application’s ‘effective filing date’ controls.”

*Id.* § 15.04[I] n.170.1.

## B. The Raciti & Bhattacharyya Warning

The stark reality of the weakness of the grace period is explained by Raciti & Bhattacharyya:

“[T]he grace period afforded against third party disclosures, dubbed as the ‘grace period non-inventor disclosure’ exception, [ ] has the patent community talking. Under AIA § 102(b)(1)(B), if an inventor publicly discloses his or her invention prior to filing, then any third party disclosure made in the interim shall not be considered prior art to defeat patentability of the claimed invention. This provision has been touted by many as granting an inventor the ability to ‘antedate’ prior art events dated less than a year before the inventor's effective filing date by demonstrating that the inventor had previously publicly disclosed the subject matter of the invention. The article ‘Monumental changes to U.S. patent law,’ published in the August 2012 issue of the CIPA Journal, has similarly expressed that by extending the grace period to third party disclosures, the AIA better protects those inventors who choose to publish before filing, and that the AIA ‘favours granting patents to inventors who take affirmative steps to make an invention public before filing, so that the public can promptly benefit from the disclosure.’

“At first blush, the § 102(b)(1)(B) exception appears to be effectively creating a ‘first-inventor-to-publish’ system that prevents third parties from prevailing over inventors who choose to publicly disclose their invention before filing a patent application. However, the USPTO's Proposed Rules for the ‘First-to-File’ system, published in the July 26, 2012, issue of the Federal Register, has clarified that most disclosures by third parties will continue to be treated as prior art even when a third party disclosure is preceded by an inventor's own public disclosure. According to the USPTO's Proposed Rules, the § 102(b)(1)(B) exception can only be invoked if the subject matter in the third party disclosure is substantially identical to the subject matter previously disclosed by the inventor. The Proposed Rules specify that even if the only differences between the inventor's disclosure and the third party disclosure ‘are mere insubstantial changes, or only trivial or obvious variations,’ the exception under §102(b)(1)(B) does not apply. The phrase ‘trivial or obvious variations’ is not defined in the Proposed Rules and these are not established terms of art in the U.S. patent law. Therefore, it will be interesting to see how this is interpreted in the forthcoming USPTO regulations or case law. As it stands, the one-year grace period is likely to apply only to an inventor's own public disclosure and duplicative disclosure of the same invention by a third party.

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“Thus, contrary to the views of many commentators, the § 102(b)(1)(B) exception in the AIA does not appear to have been crafted to engender early publication of inventions. In fact, prior publication of an invention is fraught with many downsides. Consider the following scenario: Inventor Alpha invents a widget, but rather than keeping the invention a secret and promptly filing a patent application, Inventor Alpha publishes an article disclosing elements A and B of his widget invention. After reading Inventor Alpha's article, Competitor Beta publishes his own article disclosing elements A, B, and C prior to the filing date of Inventor Alpha's patent application. Since Competitor Beta's article is not identical to Inventor Alpha's prior disclosure, Competitor Beta's article will become a prior art against Inventor Alpha's patent application. That is, the one-year grace period cannot be invoked to remove Competitor Beta's article as a prior art against Inventor Alpha's patent application.”

“The potential pitfalls of prior public disclosure behooves us to rethink the strategy of deliberate public disclosure of an invention prior to filing a patent application so as to defeat a third party's actions in the interim. Although the grace period may be helpful in instances of accidental public disclosure, publication before patent application filing should be considered with trepidation in light of the uncertainties surrounding the ‘grace period non-inventor disclosure’ exception in the AIA. A policy of early filing is therefore the recommended approach.”

Eric P. Raciti & Arpita Bhattacharyya, *The Not-So-Amazing Grace Period Under the AIA*, *CIPA Journal* (September 2012).

## VI. “PRIOR ART” VERSUS “LEVEL OF SKILL IN THE ART”

Under the law prior to the *Leahy Smith America Invents Act* one considered the level of ordinary skill in the art to be as of the date of *invention* so that the prior art that could be considered as part of the level of ordinary skill in the art was congruent with the state of the prior art as of the date of the *invention*. Now, however, the level of ordinary skill in the art is measured as of the *filing date* so that the inventor's publication of the invention in the one year grace period prior to the filing date is not “prior art” but may be considered as part of the knowledge of a person of ordinary skill in the art as of the *filing date*, a point yet to be decided in any test case at the Federal Circuit.

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The argument that there is a difference between the “prior art” and the “level of ordinary skill in the art” can be based upon the case law where each of these two categories is a separate *Graham* factor:

“Obviousness is a question of law based on underlying facts, as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The *Graham* factors are (1) the scope and content of the prior art, (2) the difference between the prior art and the claimed invention, (3) the level of ordinary skill in the field of the invention, and (4) any relevant objective considerations.” *Soverain Software LLC v. Newegg Inc.*, 705 F.3d 1333, 1336 (Fed. Cir. 2013). *See also Daiichi Sankyo Co., Ltd. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir., 2007)(Archer, J.)(quoting *In re Dembiczak*, 175 F.3d 994, 998 (Fed.Cir.1999)) (“ The underlying factual inquiries in an obviousness analysis include: ‘(1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness.’ \* \* \*”); *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696 (Fed.Cir.1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381-82 (Fed.Cir. 1983)) (“Factors that may be considered in determining level of ordinary skill in the art include: (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.”)

When the level of skill in the art is measured as of the *filing date* then the argument can be made that the knowledge of a worker of ordinary skill in the art certainly includes the grace period pre-filing publication by the inventor. “When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill in the art has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 402-03 (2007).

To the extent that a particular reference has a complete and necessary disclosure to render a claimed invention obvious, it should not be necessary to deny patentability than to cite the reference as the level of skill in the art to support this conclusion is manifest. Thus, “[i]f the only facts of record pertaining to the level of skill in the art are found within the prior art of record, the court has held that an invention may be held to have been obvious without a specific finding of a particular level of skill where the prior art itself reflects an appropriate level.” MPEP § 2141.03, *Level of*

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*Ordinary Skill in the Art* (R-08)(2012), § II, *Specifying a Particular Level of Skill is not Necessary where the Prior Art itself Reflects an Appropriate Level* (citing *Chore-Time Equipment, Inc. v. Cumberland Corp.*, 713 F.2d 774 (Fed. Cir. 1983); *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001)).

### VII. THE VARIED MEANINGS OF “STATE OF THE ART”

“State of the art” has a rich judicial history prior to the 1952 Patent Act including frequent use of this terminology by the nineteenth century Supreme Court. Invariably, there is a direct or indirect reference to what constitutes “prior art” versus the claimed invention. In some instances “state of the art” has been used interchangeably as a reference to the prior art to determine patentability; in other instances this term has been used to refer to the limited scope of protection a claim may have based upon prior art.

As to the former direct reference to prior art in the context of patentability, see, e.g., *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403, 457 (1901)(White, J., joined by Fuller, C.J., Harlan, Brewer, JJ., dissenting)(“[L]et me now recur to the state of the art \*\*\* in order to point out that even if the Jones patent embodied the process which the [majority] now attributes to it, that process was wanting in patentable novelty.”); see also *In re McKenna*, 203 F.2d 717, 720 (CCPA 1953)(citing *In re Holt*, 162 F.2d 472 (CCPA 1947); *In re Bowden*, 183 F.2d 115 (CCPA 1950); *In re Worrest*, 201 F.2d 930 (CCPA 1953))(“[I]n attempting to ascertain the presence or absence of invention, the courts should resort \*\*\* to the history and underlying state of the art at or about the time of the alleged invention \*\*\*\*.”); *Jones v. Hardy*, 727 F.2d 1524, 1529 (Fed. Cir. 1984)(reference to state of the art as prior art, citing 35 USC §103)(“Nothing in the record indicates a focus on the state of the art ‘at the time the invention was made.’”); *In re Piasecki*, 745 F.2d 1468, 1473 (Fed. Cir. 1984)(citing *In re McKenna*, 203 F.2d 717 (CCPA 1953))(“Firsthand practical knowledge of unsolved needs in the art, by an expert, is evidence of the state of the art.”); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138 (Fed. Cir. 1985)(“Those charged with determining compliance with 35 U.S.C. Sec. 103 are required to place themselves in the minds of those of ordinary skill in the relevant art at the time the invention was made, to determine whether that which is now plainly at hand would have been obvious at such earlier time. The invention must be viewed not with the

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blueprint drawn by the inventor, but in the state of the art that existed at the time.”); *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1380 (Fed. Cir. 2012)(quoting *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1273 (Fed.Cir.1991) (“[O]bjective indicia as commercial success, or filling an existing need, illuminate the technological and commercial environment of the inventor, and aid in understanding the state of the art at the time the invention was made.”)).

As to the latter usage referring to the scope of protection keyed to the state of the art, see, e.g., *Hilton Davis Chemical Co. v. Warner-Jenkinson Co., Inc.*, 62 F.3d 1512, 1573 (Fed. Cir. 1995)(en banc), *subsequent proceedings, Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17 (1997)(quoting *Computing Scale Co. v. Automatic Scale Co.*, 204 U.S. 609, 617 (1907), quoting *Hubbell v. United States*, 179 U.S. 77, 80 (1900)) (“[I]t is well settled that the claim as allowed must be read and interpreted with reference to \*\*\* the prior state of the art \*\*\*.”); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1332 (Fed. Cir. 2005)(en banc)(Mayer, J., joined by Newman, J., dissenting)(claim construction)(“Claim construction is, or should be, made in context: a claim should be interpreted both from the perspective of one of ordinary skill in the art and in view of the state of the art *at the time of invention*. See *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed.Cir.1998) (‘It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed.’.”)(emphasis added); *Novo Nordisk A/S v. Caraco Pharm. Labs., Ltd.*, 719 F.3d 1346, 1354 (Fed. Cir. 2013)(patentability determination)(“[the trial court] found that [the patent challenger] had established by ‘[c]lear and convincing evidence ... that the results of the claimed combination therapy said by Novo to be unexpected and unexplainable were, to the contrary, expected and explainable in light of the state of the art as of the critical date.’.”)(citation omitted; emphasis added by the court).



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Supreme Court precedent referring to the state of the art to determine the scope of protection includes *Railroad Company v. Dubois*, 12 Wall. (79 U.S.) 47, 65 (1870)(scope of infringement)(“[E]vidence in regard to the state of the art was proper to be considered by the court in construing the patent and determining what invention was claimed[.]”); *Cohn v. United States Corset Company*, 93 U.S. 366, 373 (1876)(“the claim must be further limited in view of the state of the art when the application for the patent was made.”); *Thompson v. Boisselier*, 114 U.S. 1, 14 (1885)(“In view of this state of the art, the claim must be limited[.] \*\*\*[E]ven if there was anything patentable in the claim as it reads, it cannot, in view of the state of the art, be extended to cover any structure except one \*\*\*, and therefore, has not been infringed.”); *Pope Manuf'g Co. v. Gormully & Jeffery Manuf'g Co.*, 144 U.S. 238, 242 (1892)(“Veeder's invention, in view of the state of the art, is a very narrow one[.] \*\*\* [I]n view of the state of the art, we think the court below was correct in holding that there was no infringement.”); *Computing Scale Co. of America v. Automatic Scale Co.*, 204 U.S. 609, 616 (1907)(“Taking the state of the art at that time, it is evident that there is little room to claim a broad construction of Hayden's improvement.”); *Westinghouse Electric & Mfg. Co. v. Formica Insulation Co.*, 266 U.S. 342, 350 (1924)(“[T]he scope of the right of exclusion granted is to be determined in the light of the state of the art at the time of the invention.”).

## VIII. CONCLUSION

Whether the theory expressed in this paper is correct or not will, in the end, depend upon a case of first impression at the Federal Circuit (or Supreme Court) which has yet to come. Until then, the safest approach is to utilize the grace period *only* in a *past tense* emergency, i.e., when the first filing has unfortunately occurred without the filing of a patent application, and now the grace period is the hope of last resort. Even then, the grace period filing should be accomplished immediately, and not at the end of the grace period (and the resultant, higher level of the state of the art).

If the clock could be turned back six to ten years to the period of legislative activity leading up to the *Leahy Smith America Invents Act*, and if somebody had paid attention to the issue relating to the changing level of the state of the art that vitiates the grace period, it may, even then, have been a difficult task to persuade all sides of the legislative debate to come up with a different solution than the wording of what is now Section 103.

Today, however, after five years of practice under the *Leahy Smith America Invents Act* there has been an adjustment made to the usage of first to file. It is difficult, therefore, to see the possibility of a further legislative change to strengthen the grace period. Indeed, there is now a sizeable percentage of the American patent community that had adopted to the new law, so that those who continue to harbor thoughts of a restoration of a real grace period may have difficulty making the case to Congress. Short of such legislation or the even more remote possibility of a test case that would judicially restore the grace period, the patent community must continue in the real world practice of first to file.

**APPENDIX: THE GRACE PERIOD STATUTORY CHANGES**

**Prior Invention Of Another As Prior Art**

***Summary:*** The new 2011 law in 35 USC § 102(a)(1) defines various disclosures as prior art if the disclosures are “before the effective filing date of the claimed invention[.]” Under the 2011 law, 35 USC § 102(b)(1) defines a grace period exemption “[a] ***disclosure \*\*\* of a claimed invention*** [which] shall not be prior art to the claimed invention[.]”

**Under the America Invents Act (2011):**

35 U.S.C. 102 Conditions for patentability; novelty.

(a) NOVELTY; PRIOR ART.—A person shall be entitled to a patent unless—  
(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention \*\*\*.

(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—

(A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

(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.

**Under the 1952 Patent Act (text as of 2011):**

A person shall be entitled to a patent unless —

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

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### Prior Filed Application of Another As Prior Art

**Summary:** The new 2011 law in 35 USC § 102(a)(2) defines as prior art a prior-filed later-published third party application as prior art if “effectively filed before the *effective filing date of the claimed invention*.” The grace period is defined in 35 USC § 102(b)(2) to exempt “[a] disclosure [which] shall not be prior art to a claimed invention \*\*\*.”

#### Under the America Invents Act (2011):

35 U.S.C. 102 Conditions for patentability; novelty.

(a) NOVELTY; PRIOR ART.—A person shall be entitled to a patent unless—  
\*\*\*

(2) the claimed invention was ***described*** \*\*\* in [a published patent application], in which the \*\*\* application \*\*\* names another inventor and was effectively filed before the effective filing date of the claimed invention.

(b) EXCEPTIONS.—  
\*\*\*

(2) DISCLOSURES APPEARING IN APPLICATIONS AND PATENTS.—A ***disclosure*** shall not be prior art to a claimed invention under [35 USC § 102](a)(2) if—

(A) the subject matter disclosed was obtained directly or indirectly from the inventor or a joint inventor;

(B) the subject matter disclosed had, before such subject matter was effectively filed under subsection (a)(2), 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; or

(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.

#### Under the 1952 Patent Act (text as of 2011):

35 U.S.C. 102 Conditions for patentability; novelty and loss of right to patent.

A person shall be entitled to a patent unless —  
\*\*\*

(e) the invention was described in — (1) an application for patent, published under [35 USC § 112](b), by another filed in the United States ***before the invention by the applicant*** for patent or (2) a patent granted on an application for patent by another filed in the United States ***before the invention by the applicant for patent*** \*\*\*.

**Obviousness Based Upon Disclosure Before Filing**

**Summary:** The Leahy Smith America Invents Act measures the state of the art for determining obviousness as of the *filing date*: Thus, a patent is denied “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious **before the effective filing date** of the claimed invention to a person having ordinary skill in the art[.]” The 1952 Patent Act defined the state of the art under 35 USC § 103 as of the earlier “*time the invention was made.*”

**Under the America Invents Act (2011):**

**35 U.S.C. 103 Conditions for patentability; non-obvious subject matter.**

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in [35 USC §] 102, **if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art** to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

**Under the 1952 Patent Act (text as of 2011):**

**35 U.S.C. 103 Conditions for patentability; non-obvious subject matter.**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in [35 USC §] 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been **obvious at the time the invention was made** to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**BACKGROUND INFORMATION ABOUT THIS PAPER**

This paper is an excerpt from Harold C. Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER’S GUIDE, § 2[a][6][C] *State of the Art as of the Filing Date* (May 28, 2016). With the exception of § I, *Executive Summary*, which loosely follows § 2[a][6][C], *State of the Art as of the Filing Date*, the next five sections are based upon § 2[a][6][C], *State of the Art as of the Filing Date*; § 2[a][6][C][i], *Grace Period does not Literally Apply to Obvious Variants*; § 2[a][6][C][ii], *Grace Period does Not Apply to the “State of the Art”*; § 2[a][6][C][iii], *Professor Mueller’s Interpretation of the New Law* ; § 2[a][6][C][iv], *“Prior Art” versus “Level of Skill in the Art”*; § 2[a][6][C][v], *The Varied Meanings of “State of the Art”*.

**ABOUT THE AUTHOR**



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