OVERVIEW: AN HISTORIC REFORM, CAPPING A THREE-DECADE REVOLUTION IN U.S. PATENT LAW

On September 16, 2011, Public Law 112-29, the Leahy-Smith America Invents Act, became law. Congress acted, “[t]o amend title 35, United States Code, to provide for patent reform.” The new law represents a comprehensive reform of the law of patentability and patent enforceability. In addition, the AIA makes dramatic changes to the role of the public in the patenting process.

For inventors, for patent applicants, for patent owners and for the patent professionals who assist them in the process of seeking and securing patents, it is important to understand the new law and its implications for patenting. A review of the historical context from which these new patenting rules arose can assist in gaining a fuller understanding of the congressional mission to reform the patent law.

In a nutshell, the AIA completes a 30-year journey to remake, in their entirety, each of the foundational assumptions underlying the operation of the U.S. patent system. It is no exaggeration to assert that the patenting process in the United States, as it existed from the 1790s through the 1970s, was stunningly different from the new patenting regime resulting from the AIA’s comprehensive reform measures.

What was it in the pre-1980 U.S. patent system that needed serious reshaping?

The old patenting process in the United States was a secret one, hidden from public view. From 1836 until the start of this century, it consisted exclusively of a secret, non-public dialogue between the patent applicant and the patent examiner. Indeed, except during the past decade, the first inkling that a U.S. patent might issue for an invention often arrived on the very day the patent on the invention was actually issued.

In addition, prior to the AIA, critical information that was sometimes necessary for a patent examiner to analyze in order to decide if a valid patent could be issued was secret information, not available to the public. Private information only known to the inventor or patent owner could be highly material to the patent examiner’s decision to allow a patent to issue. This dependency on an applicant’s private knowledge made it critical that the patent applicant be forthcoming in offering such information to the patent examiner.

Some of this essential information was absurdly subjective, which encouraged second-guessing as to whether the inventor had been fully candid with the patent examiner.

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1. 125 Stat. 284–381.
2. 125 Stat. 284.
The ultimate in such subjectivity was a requirement that first appeared in U.S. patent law in 1952 that inventors must disclose what they “contemplated” as their “best mode” for carrying out their respective inventions.4

More distressingly, the validity of any issued patent could depend upon other secret information—unavailable to the public, much less the patent applicant—that was held privately in the hands of other parties. Notably, prior inventions of others made in (or introduced into) the United States could destroy the patentability of a patent applicant’s claimed invention, even if there were no contemporaneous public clues that such inventions had been independently made by others and, if so, when.

For members of the public, another price of the pervasive patent secrecy was the absence of any opportunity for a member of the public to participate in the decision of the United States Patent and Trademark Office to issue a U.S. patent. Moreover, even if a patent issued by the Office was manifestly invalid, there was no post-issuance opportunity to contest a patent examiner’s clearly incorrect determination of patentability.

Lastly, other than for patents sought since 1995, the date when patent protection would ultimately expire could depend in significant measure on the attitude of the patent applicant in securing the patent. Patent expiration was measured at 17 years from the date the patent was ultimately issued, not the date when the patent was originally sought. If a patent applicant were eager to issue a patent, it was not unknown for a patent to grant within a year from patent filing, with patent expiration then taking place less than 18 years after the patent was first sought.

The impact of this yardstick for measuring patent life meant that the less eager the patent applicant was to see its patent filing proceed to a final patent grant, the longer the public might need to wait for the issued patent to eventually expire. Not unknown were patents that expired 30 or 40 or even 50 years after the invention was made and the patent for it initially sought.

The curious nature of the pre-1980s U.S. patent law produced a further perversity for patent applicants. It created a body of jurisprudence where the courts permitted patent infringers to call into question every judgment the patent applicant made in the course of securing a patent. Even if the resulting patent was entirely valid, it could be nonetheless declared an unenforceable fraud.

Why would the law have countenanced such a perverse outcome for patent holders? The criticality of non-public information in the hands of the patent applicant—and the abundant sources of possible mischief and, indeed, the potential for outright fraud, if patent applicants withheld necessary information or manufactured false documentation as to their “dates of invention” and the like—led the Office to impose an affirmative duty to disclose information to patent examiners.5 The courts contemporaneously issued judicial holdings indicating that the patent applicant bore an uncompromising

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4. Prior to 1870, there was no requirement whatsoever in the patent laws relating to a “best mode.” In 1870, Congress provided “[i]n case of a machine, [the inventor] shall explain the principle thereof, and the best mode in which he has contemplated applying that principle so as to distinguish it from other inventions.” See 1870 Patent Act, § 26, 16 Stat. 198. From this quite limited requirement, on its face intended to allow a new machine to be distinguished in its operation from other inventions, Congress derived the 1952 requirement that existed prior to the AIA.

Understanding the America Invents Act

6. “Those who have applications pending with the Patent Office or who are parties to Patent Office proceedings have an uncompromising duty to report to it all facts concerning possible fraud or inequitableness underlying the applications in issue. . . . This duty is not excused by reasonable doubts as to the sufficiency of the proof of the inequitable conduct nor by resort to independent legal advice. Public interest demands that all facts relevant to such matters be submitted formally or informally to the Patent Office, which can then pass upon the sufficiency of the evidence. Only in this way can that agency act to safeguard the public in the first instance against fraudulent patent monopolies.” Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co., 324 U.S. 806, 818 (1945).

This page discusses the transformation of the U.S. patent system from one of non-transparency, subjectivity, unpredictability and excessive complexity to one that will operate with near-complete transparency, objectiveness, predictability and simplicity. Congress has now completed the transformation of the patent system. The new patent law will change the character of the patent system that persisted from the 1790s through the 1970s. In the future, most patent applications will not only be promptly published, but members of the public will have the opportunity to submit information relevant to patentability that the patent examiner must consider before making a decision to issue a patent. After a patent has issued, members of the public will have the opportunity to return to the Office and challenge the validity of an issued patent on any validity issue that could be raised as a defense to patent infringement in the courts. This new opportunity to challenge patent validity back in the Office will be conducted before technically and legally trained administrative patent judges and, by statute, must run to completion within a year (at most 18 months) from commencement. A right of appeal to the Court of Appeals for the Federal Circuit assures that these proceedings can involve a full vetting of patentability issues.

This profound reversal in the patenting process—with the public’s role being transformed from blinded spectator to full participant—was made possible because of the manner in which the AIA rewrites basic rules for patentability of applications for patent and validity of patents once issued. In a nutshell, the AIA limits patentability issues in a manner that renders the new post-grant patent challenge mechanisms administratively feasible.

Under the AIA, the new post-grant reviews will be confined to questions (essentially) of law, with limited factual underpinnings needed to make those legal assessments. Most importantly, the determination of whether a claimed invention is sufficiently different (i.e., novel and non-obvious) from previously existing technology (i.e., the prior art) to merit a patent is now to be assessed on the basis of disclosed subject matter that qualifies as either available to the public prior to the inventor’s patent filing or having been described in an earlier-filed patent application naming another inventor that subsequently became available to the public.

The utter transparency of this new definition for what can qualify as “prior art,” to then be used to determine the non-obviousness for a claimed invention (and the lesser included requirement that the invention be novel), sits alongside the three remaining core issues of
patent validity: Is the claimed invention sufficiently disclosed in the patent such that it identifies the embodiments of the invention and enables them to be put to a specific, practical and substantial use?\textsuperscript{16} Are the claims of the patent sufficiently definite that they reasonably differentiate subject matter patented from subject matter that is not?\textsuperscript{17} And, lastly, are the claims of the patent confined to subject matter that is sufficiently concrete, such that the invention relates to a process, machine, manufacture or composition of matter that is expressed in terms that are not excessively conceptual or otherwise abstract?\textsuperscript{18}

Given that further reforms under the AIA mean that the naming of the inventor in an application or patent can now be corrected irrespective of any contention of “deceptive intention” in the original inventor naming, this question of law\textsuperscript{19} should have no impact on a patent’s validity in any forum where the validity of the patent is being contested. Why so? The available remedial actions to correct the naming of the inventor can be undertaken in almost any imaginable circumstance, including in the AIA’s new “supplemental examination” proceeding.\textsuperscript{20}

The same can be said for holding a patent invalid based upon a defective “oath” of the inventor. Not only does the AIA reduce the requirement for an oath or declaration of the inventor to nothing more than a one-time obligation to make two required statements, which the patent applicant then has the option of simply incorporating into an inventor’s assignment of the invention, but a new statutory “savings clause” now expressly permits correction of any such oath (or its alternative in an assignment document) at any time. Once corrected, any prior defect can no longer be a basis for invalidity or unenforceability of the patent.

Yet another AIA provision insulates the patent owner against invalidity or unenforceability of a patent on the basis that the “best mode” contemplated by the inventor at the time of the patent filing was not included in the patent specification. This insulation extended to prohibit consideration of the “best mode” issue in any post-issuance proceeding before the Office.

\textsuperscript{16} 35 U.S.C. § 112(a). The § 112 requirements that bear on a patent’s validity or enforceability are enablement and written description. “[W]hether a specification sufficiently enables a claim under 35 U.S.C. § 112, para. 1 (1988), enablement is a question of law reviewed \textit{de novo}, which may involve subsidiary questions of fact reviewed for clear error . . . .” In re Epstein, 32 F.3d 1559, 1567 (Fed. Cir. 1994). The “written description” requirement, \textit{i.e.}, the requirement that the specification of the patent identify the embodiments of the claimed invention, is, thus, a requirement to demonstrate in the patent document the completed conception of the invention, which is likewise a question of law. See Scott v. Koyama, 281 F.3d 1243, 1246 (Fed. Cir. 2002) (“Priority of invention is a question of law, based on findings of evidentiary fact directed to conception, reduction to practice, and diligence.”) See also the note that “‘conception’ is an issue of law” in Ellsworth v. Moore, 61 U.S.P.Q.2d 1499, 1506 (BPAI 2001).

\textsuperscript{17} 35 U.S.C. § 112(b).

\textsuperscript{18} 35 U.S.C. § 101. The § 101 requirement for subject-matter eligibility is a question of law. Arrhythmia Research Tech., Inc. v. Corazonix Corp., 958 F.2d 1053, 1055–56 (Fed. Cir. 1992) (explaining that “[w]hether a claim is directed to statutory subject matter is a question of law” and further noting that “determination of this question may require findings of underlying facts specific to the particular subject matter and its mode of claiming”).

\textsuperscript{19} “Inventorship is a question of law, applied to relevant facts.” C.R. Bard, Inc. v. M3 Systems, Inc., 157 F.3d 1340, 1352 (Fed. Cir. 1998).

A final effort at curbing unenforceability grounds and opening remedial measures in the patent statute is found in the decision by Congress to eliminate from the patent statute all provisions containing restrictions or limitations based upon “deceptive intention.” Indeed, for the first time since the 1836 Patent Act, the words “deceptive intention” nowhere appear in the U.S. patent code.

In the aggregate, therefore, it is virtually unimaginable that the Office in a post-issuance proceeding, or a court hearing an invalidity defense, would be required to address a patentability issue other than the four core issues of sufficient differentiation, disclosure, definiteness, and concreteness.

As a further safety valve, the new supplemental examination proceeding assures that a valid patent can be fully enforceable, even if errors or omissions were made in the original examination of the patent that would otherwise trigger its permanent unenforceability. What is required of the patent owner under this provision is to seek (and conclude) the supplemental examination procedure before attempting to enforce the patent.

The congressional intent in this long litany of remedial provisions added to the patent statute—and the ejection from the law of ancient proscriptions on remedial measures based upon “deceptive intention”—appears unmistakable. In reforming the patent law so that publicly available information alone drives most patentability determinations, so that the patenting process itself is largely open to the public, such that the public has a right to participate in the patenting process both before and after the patent has issued, Congress recognized that patent law should place on an equal footing the equitable conduct expectations of both patent applicants and public participants in the patenting process.

Whatever the role of an individual appearing before the Office in the conduct of proceedings before the Office, the participants ought to be subject to the same conduct rules and to bear the same consequences of misconduct. In a broader sense, the expectations for proper conduct before the Office in a public proceeding, to largely consider the import of information available to the public, should be no different from conduct expectations of all participants in all other proceedings before all other administrative agencies.

What consequences will now flow, in the aggregate, from such a radical reshaping of patent law through this bold package of patent reforms?

From the most mundane (permitting the patent owner to file for a patent as the assignee and trivializing full compliance with the requirement for an “inventor’s oath”) to the most profound (banishing the concept of “deceptive intention” from the patent statute and affording patent owners a remedy for correcting all errors and omissions made in the original examination of a patent through the new supplemental examination) to the most substantive (elimination of all subjective and non-transparent tests for patentability in favor of a patent law in which the validity of a patent is assessed through information available to the public), the AIA did not shirk from working reform where the consequence would be greater transparency, objectivity, predictability and simplicity in the operation of the U.S. patent system. This paper, therefore, will attempt to set out how

21. For the most comprehensive understanding of congressional intent in enacting the key provisions of the AIA, see Joseph D. Matal, *A Guide to the Legislative History of the America Invents Act (Part I)*, 21 Fed. Cir. B.J. ___ (March 2012), which is included in this volume. Nothing in the present analysis departs, knowingly at least, from the guide provided therein.
those changes to the patent statute can be best understood and best applied by those im-
pacted by the patenting process.

THE VOCABULARY OF THE NEW PATENT LAW: UNDERSTANDING
THE NEW NOMENCLATURE

Congress placed important new definitions into the patent statute. Newly defined terms
are then used in the most critical passages of the revised code setting forth the substantive
patent law.\(^{22}\) Thus, to assure the fullest possible understanding of the new statute, an
introductory primer is in order.

For the first time, several of the most commonly used terms in patent parlance—
“inventor,” “claimed invention,” and “effective filing date” for a claimed invention—are
explicitly defined in the patent statute. Those new definitions appear with a new precision
in § 100.\(^{23}\)

The term “claimed invention” was first introduced into the patent statute in the pre-
AIA § 103(c),\(^{24}\) but without any definition. As now defined, it references “the subject
matter defined by a claim in a patent or an application for a patent.”\(^ {25}\) Hence, each
of the claims in a patent or an application for patent constitutes its own “claimed invention” with
respect to the “metes and bounds” of the subject matter encompassed therein.

The newly defined term “claimed invention” is then employed to define a second
term, the “effective filing date” for a claimed invention.

While the term “effective filing date” has been in use in the patent statute since the
1990s, it has typically referenced the effective filing date of the application for patent, not
a specific claim or claimed invention.\(^ {26}\) Such imprecise usage of the term is now gone
from the key provisions of the patent statute, i.e., those dealing with prior art and patent-
ability. Under the new provisions of the AIA, prior art used for determining novelty and
non-obviousness is assessed as of the effective filing date for each claimed invention in the
patent or application for patent, as the case may be.

Under the new definition, the default date for the “effective filing date” is the actual
patent application filing date in the case of a still-pending patent application. Similarly,
the default effective filing date for a claimed invention in a patent is the filing date of the
actual application on which a patent has issued.

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\(^{22}\) 35 U.S.C. § 100 sets out explicit statutory definitions. However, other provisions of
the patent statute now contain similarly explicit definitions.

\(^{23}\) For convenience, all statutory references in the text, not otherwise attributed, constitute
references to title 35, United States Code.


\(^{25}\) 35 U.S.C. § 100(f). All emphasis in statutory language throughout the text is that of
the author.

\(^{26}\) Title 35 was amended to add a reference to “effective filing date” with respect to an
application for patent in pre-AIA § 122(b)(2)(B)(v) in 1999, in pre-AIA § 273 in 1999, and in
pre-AIA § 287(c)(4) in 1996. In 1995, however, pre-AIA § 103(b) adopted this term to reference
the effective filing date for a claimed invention. Under the AIA, the only statutory provisions
that continue to employ the term “effective filing date” to reference an application for patent,
rather than a claimed invention, are in § 122 and § 287. In those sections it will remain an
undefined term.
The only circumstance in which this default date will not be the effective filing date arises if the claimed invention patent or application for patent at issue is entitled to priority or benefit of the earlier patent filing. This entitlement to priority or benefit exists where (1) the later-filed application makes and is entitled to make a claim for priority or benefit of an earlier patent filing and (2) the earlier patent filing contains a sufficient disclosure of the claimed invention. In such a case, the filing date of the earliest such predecessor patent filing in which the claimed invention is sufficiently disclosed becomes the effective filing date for the claimed invention.27

The term “effective filing date,” in addition to its role in the assessment of novelty and non-obviousness for each claimed invention in a patent or an application for patent is also employed in the transition provisions of the AIA that implement the AIA’s new standard for prior art. Thus, understanding the term “effective filing date” becomes a critical aspect of the AIA’s transition provisions28 under which the new provisions defin-

27. Claims in a reissue application or a reissued patent are subject to a slightly different rule, since the actual filing date of a reissue application is not considered in assessing the effective filing date for any claim under reissue. Under 35 U.S.C. § 100(h)(2): “The effective filing date for a claimed invention in an application for reissue or reissued patent shall be determined by deeming the claim to the invention to have been contained in the patent for which reissue was sought.”

28. The transition provisions of the AIA found in § 3(n) reference the term “effective filing date” for a claim to a claimed invention in each of paragraphs (1) and (2):

(n) EFFECTIVE DATE.—

(1) IN GENERAL.—Except as otherwise provided in this section, the amendments made by this section shall take effect upon the expiration of the 18-month period beginning on the date of the enactment of this Act, and shall apply to any application for patent, and to any patent issuing thereon, that contains or contained at any time—

(A) a claim to a claimed invention that has an effective filing date as defined in section 100(i) of title 35, United States Code, that is on or after the effective date described in this paragraph; or

(B) a specific reference under section 120, 121, or 365(c) of title 35, United States Code, to any patent or application that contains or contained at any time such a claim.

(2) INTERFERING PATENTS.—The provisions of sections 102(g), 135, and 291 of title 35, United States Code, as in effect on the day before the effective date set forth in paragraph (1) of this subsection, shall apply to each claim of an application for patent, and any patent issued thereon, for which the amendments made by this section also apply, if such application or patent contains or contained at any time such a claim—

(A) a claim to an invention having an effective filing date as defined in section 100(i) of title 35, United States Code, that occurs before the effective date set forth in paragraph (1) of this subsection; or

(B) a specific reference under section 120, 121, or 365(c) of title 35, United States Code, to any patent or application that contains or contained at any time such a claim.

Pub. L. No. 112-29, 125 Stat. 293 (emphasis added).
Understanding the America Invents Act

ing prior art and novelty under the AIA (i.e., new § 102) replace the corresponding provisions of pre-AIA law (i.e., pre-AIA § 102).29

The term “inventor” is a defined term for the first time in the history of U.S. patent law. The inventor is defined as the entire “inventive entity” in cases of joint invention and the sole inventor for a sole invention. Similarly, a “joint inventor” is defined as one of the members of the inventive entity for a joint invention.30 This provides a higher degree of readability and precision in the new law by allowing either a simple reference to “the inventor” where the provision relates to the entity named in the patent or application for patent or “the inventor or a joint inventor” where the intent is to reference any or all of the individuals so named in the patent or application for patent.

Elsewhere in the new statute, other terms that are core to understanding the new patent law are given explicit, but more contextual, definitions. Among the commonplace patent vocabulary with an identifiable and explicit definition is “prior art,” the term used to define the earlier-disclosed subject matter against which the novelty and non-obviousness of a claimed invention is to be assessed. This term now has a definition appearing in new § 102(a). Indeed, for the first time, the term “prior art” itself now appears in § 102, both in the heading for new § 102(a) and elsewhere in new § 102 itself.

A new term in patent parlance, likewise core to the understanding of the AIA, is provided in new § 102(d), “PATENTS AND PUBLISHED APPLICATIONS EFFECTIVE AS PRIOR ART.” New § 102(d) contains a contextual definition of the term “effectively filed.” This new term, as the title of the subsection indicates, is used to fix the date on which subject matter that is described in certain publicly available patent filings can qualify as prior art as of the date when filed, not just the date when published or patented.

The definition for this term differs from the similar term “effective filing date” for a claimed invention—and does so in subtle but important respects that are discussed

29. The transition provision provide that each nonprovisional application (and each of that application’s progeny, defined as any application that at any time made a claim for the benefit of such nonprovisional patent filing) that contained at any time even a single claim with an effective filing date on or after September 16, 2013 (i.e., the effective date for new § 102) is fully subject to new § 102. Under this provision, placing any claim to a claimed invention in an application for patent with an effective filing date that is after the effective date for new § 102 moves the entire application (and its progeny) under the first-inventor-to-file principle. For these “first-inventor-to-file” applications, the second transition provision will additionally apply (and will apply to any progeny applications) if the application additionally contained at any time a claim with an effective filing date before the September 16, 2013 effective date. For patent filings subject to both transition provisions, the provisions of pre-AIA § 102(g) will apply to all claims, as will the requirements under new § 102. Self-evidently, patent applicants, unless poorly advised, will avoid filing any nonprovisional patent application that could contain claims with effective filing dates that are on both sides of the September 16, 2013 transition date divide.

30. 35 U.S.C. § 100(f) and (g) provide:

(f) The term “inventor” means the individual or, if a joint invention, the individuals collectively who invented or discovered the subject matter of the invention.

(g) The terms “joint inventor” and “coinventor” mean any 1 of the individuals who invented or discovered the subject matter of a joint invention.
Thus, understanding the definitional differences between *effective filing date* and *effectively filed* is critical to appreciating the elegant simplicity of the phrase in the new statute (specifically in the passage from new § 102(a)(2)) that speaks of subject matter in an earlier patent filing qualifying prior art to a claimed invention because such subject matter was *effectively filed before the effective filing date of the claimed invention*.

Three other nomenclature-related issues are worth noting as a preliminary matter because they may assist the careful reader of the new statute to more completely appreciate its full import:

- The patent “applicant” under pre-AIA law was, absent exceptional circumstances, the inventor of the subject matter claimed in the patent application. Under the AIA, the patent applicant need not be the inventor—and, most typically, will not be the inventor. Instead, assignees of the inventor will themselves make applications for patent, with a new statutory requirement imposed on the assignee-applicant to properly name the inventor. The possibility for an assignee-applicant has required, for example, that new terminology be used in the new § 102 definition for prior art. As an example, where earlier-filed applications for patent “by another” were once referenced (pre-AIA § 102(e)), the AIA provisions now reference such applications as “naming another inventor”—affording greater precision and clarity. In sum, the term “applicant” has a potential difference in meaning in the new statute compared to its pre-AIA use to reference the inventor, and amendments under the AIA account for that difference.

- The term “available to the public,” although long used in several places in the pre-AIA patent statute, now plays a new (and central) role in the new patent statute. The term appears in the new definition of “prior art.” It establishes an overarching requirement for availability to the public before any subject matter can qualify as prior art to a claimed invention. As will be dealt with below in detail, this new terminology was designed to be synonymous with *public accessibility*—the longstanding standard for determining if subject matter constitutes a “printed publication” under pre-AIA patent law.

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31. As a preview, the term “effectively filed” does not employ the two-part test referenced above for the term “effective filing date” but uses instead only the first of the two parts—where there is *entitlement to claim* priority or benefit of an earlier-filed application for patent, then the common subject matter described in both the earlier- and later-filed applications is effectively filed as of the earlier patent filing date.

32. In addition to these three items, 35 U.S.C. § 101(h) further provides a newly located definition for “joint research agreement,” a term that under the pre-AIA statute was defined in § 103(c)(3). This definition was not modified in any respect under the AIA.

33. Under the AIA, this term now appears in 35 U.S.C. § 102(a)(1). Under pre-AIA law, it appears in several sections. Under § 9, the Office can provide copies of “records available . . . to the public,” under § 122 the Office is given discretion concerning the manner in which “information concerning published patent applications shall be made available to the public,” and under § 201(f) the term “practical application is defined in terms that an invention’s “benefits are . . . available to the public.” Additionally, § 297(d)(1) requires that certain records of complaints be “publicly available.”
The terms "disclosed," "disclosure," "publicly disclosed," and "subject matter disclosed," are now used in the patent statute consistently to describe what subject matter can qualify as prior art under § 102(a) and what subject matter can be excepted from subject matter that would otherwise so qualify, including through the operation of the inventor’s “grace period.” These provisions will be given a more detailed vetting in connection with the discussion below of the exceptions to prior art. In brief, the term “disclosed” is given an unambiguous contextual definition in new § 103 by identifying what can qualify as prior art under § 102 to subject matter disclosed. Similarly, the term “description” is now used to specifically reference a disclosure appearing in a documentary form, e.g., a patent or other form of printed publication.

With this lexicon now in hand, it will be more readily apparent how the gears of the new patent law efficiently mesh together.

THE CHANGES TO SUBSTANTIVE PATENT LAW: PATENTABILITY AND PATENT VALIDITY

To appreciate fully the implications of the AIA on the law of patentability and patent validity, two approaches are particularly useful. The first approach is a simple look ahead. What will constitute the sum and substance of the law of patentability and patent validity once the AIA fully takes hold?

The second approach is a careful look back. Given the congressional starting point of the pre-AIA patent law, what specific modifications of the pre-AIA patent statute did Congress make to arrive at the new law? In more colloquial words, how did the pre-AIA law actually morph into the new patent law of the AIA?

As referenced in the overview above, once the AIA fully takes hold, the validity of a claimed invention in an issued U.S. patent should typically depend on the satisfaction of four core tests for patent validity—sufficient differentiation from the prior art, sufficient disclosure of the claimed invention, sufficient definiteness in claiming, and sufficient concreteness in characterizing the product or process for which the patent is sought.

Given the preceding cruise through the new definitions in the statute, the first of the four tests—sufficient differentiation—can now be expressed more meaningfully using the new statute’s defined terminology:

Is the claimed invention sufficiently different from the prior art, which consists of—

(1) disclosures made available to the public (i.e., subject matter made publicly accessible) before the effective filing date of the claimed invention and

(2) descriptions in earlier U.S. (and U.S.-designating Patent Cooperation Treaty patent filings), naming another inventor, that subsequently became available to the public (i.e., were published or issued as patents);

subject to exceptions protecting inventors, their co-workers and other collaborators from having certain of their own disclosures, or subject matter for which they were the first to disclose, used as prior art?
The significance of limiting the core questions of patent validity to the sufficient differentiation test above and the three earlier-outlined companion patentability tests cannot be overstated. The interrelated reforms in the bill mean that the validity determination for an issued patent will typically proceed much more transparently, objectively, predictably and simply—remarkably so in contrast to the pre-AIA patent law. Without this breakthrough in simplification of the substantive patent law, it would not have been possible, as noted above, for the new post-grant review procedure to be workable (administratively feasible) in addressing all issues of the validity of a patent that could be raised as a defense to a patent infringement charge in the courts.

Thus, by far the provisions of the AIA that are of the utmost importance to realizing the benefits contemplated by the reforms are premised on the successful implementation of the new statutory definition for “prior art.” Either this new definition will successfully translate into prior public disclosures, and earlier patent filings naming other inventors, as the sole means for disclosed subject matter to qualify as prior art, or it would be difficult to make sense of what Congress has done in the aggregate to the patent law, particularly the newly structured post-grant review procedures that Congress has dictated must be instituted, adjudicated and typically concluded in no more than one year.

With this look forward to the new patent law that Congress crafted, the look backward can proceed. The backward look will conclude with a morphing exercise in which the pre-AIA patent law is compared—word by word—to the new patent statute. However, before that morphing exercise commences, a few preliminary matters are discussed that provide some needed context.

First, in tackling the framework for defining prior art, Congress appeared in one sense to rewrite pre-AIA § 102 in its entirety. In reality, Congress took a more sophisticated approach that carefully melded old law with the new. In order to assure that new § 102 would be properly understood, Congress found it necessary to provide modest, but thoroughly coordinated, amendments to pre-AIA § 103’s provision establishing the non-obviousness requirement.

Thus, the best, albeit perhaps nonobvious, starting point for understanding the new statutory provisions relating to prior art and novelty in new § 102 is with a careful look at the evolution of § 103 under the AIA.

The Evolution of the Text of the AIA Non-Obviousness Requirement

The pre-AIA text of § 103 had been the subject of multiple amendments after its inception as a wholly new provision introduced into the 1952 Patent Act. The PLAA of 1984 had amended pre-AIA § 103 by adding an exception to subject matter that would constitute

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34. The remaining three, again as noted earlier, are the following:

- Is the claimed invention sufficiently disclosed in the patent specification so that the embodiments of the claimed invention have been identified and can be put to a specific, substantial and practical use?
- Is the claim to the invention sufficiently definite to differentiate between subject matter that is claimed and subject matter that is not?
- Is the claimed invention expressed in terms that are sufficiently concrete so that the claimed process, machine, manufacture, or composition of matter is not characterized in a manner that is excessively conceptual or otherwise abstract?
“prior art” to be used in § 103. The PLAA provision was placed into § 103 and, thus, applied only to § 103 non-obviousness determinations, not § 102 novelty assessments.

Subsequently, the Biotechnology Process Patent Act of 1995 further amended § 103. The Act was intended to guarantee non-obviousness for certain process inventions. Then the AIPA of 1999 offered yet another amendment to § 103 that sought to disqualify certain prior-filed, commonly assigned patent filings of co-workers as prior art.

Finally, the Cooperative Research and Technology (CREATE) Act of 2004 completed pre-AIA § 103. It sought to extend benefits of the AIPA to research collaborators by treating patent filings under joint research agreements as though they had been commonly assigned.

The aggregate result of these amendments to § 103 was that the original 1952 codification of the non-obviousness requirement became re-designated as § 103(a), while the biotechnology provisions became a new § 103(b) and the AIPA/CREATE Act changes followed as a new § 103(c).

37. The pre-AIA 35 U.S.C. § 103(b) provided:

   (b)(1) Notwithstanding subsection (a), and upon timely election by the applicant for patent to proceed under this subsection, a biotechnological process using or resulting in a composition of matter that is novel under section 102 and nonobvious under subsection (a) of this section shall be considered nonobvious if—

   (A) claims to the process and the composition of matter are contained in either the same application for patent or in separate applications having the same effective filing date; and

   (B) the composition of matter, and the process at the time it was invented, were owned by the same person or subject to an obligation of assignment to the same person.

   (2) A patent issued on a process under paragraph (1)—

   (A) shall also contain the claims to the composition of matter used in or made by that process, or

   (B) shall, if such composition of matter is claimed in another patent, be set to expire on the same date as such other patent, notwithstanding section 154.

   (3) For purposes of paragraph (1), the term “biotechnological process” means—

   (A) a process of genetically altering or otherwise inducing a single– or multicelled organism to—

   (i) express an exogenous nucleotide sequence,

   (ii) inhibit, eliminate, augment, or alter expression of an endogenous nucleotide sequence, or

   (iii) express a specific physiological characteristic not naturally associated with said organism;

   (B) cell fusion procedures yielding a cell line that expresses a specific protein, such as a monoclonal antibody; and

   (C) a method of using a product produced by a process defined by subparagraph (A) or (B), or a combination of subparagraphs (A) and (B).

38. The pre-AIA 35 U.S.C. § 103(c) provided:

   (c)(1) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.
has been revised in substance and removed so that it appears as part of §§ 102(b) and (c). Thus, unlike the pre-AIA patent law, the exclusions from prior art applying to co-worker and collaboration patent filings apply to both novelty and non-obviousness, not merely (as under the pre-AIA law) the issue of non-obviousness.

The pre-AIA § 103(a), providing the core requirement for non-obviousness from the 1952 Patent Act, was modified under the AIA to become (again) a single, undesignated paragraph. Looking at the AIA and pre-AIA provisions side-by-side reveals the subtle, but important, differences introduced through the new law:

New § 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 section 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.

Pre-AIA § 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 section 102 of this title, 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 negatived by the manner in which the invention was made.

This side-by-side comparison of the two provisions leads to the following observations:

- Some terminology in new § 103 has changed from its pre-AIA counterpart to take advantage of newly defined terms. The defined terms now appearing in § 103 are “claimed invention” and “effective filing date.” In addition, although the term “prior art” appeared in the pre-AIA § 103, its reappearance in new § 103 is as a term defined in § 102(a) of the statute. As noted, the heading of § 102(a) is now titled in part “prior art” and, thus, now clarifies that only disclosures under § 102(a) can qualify as prior art to a claimed invention.

(2) For purposes of this subsection, subject matter developed by another person and a claimed invention shall be deemed to have been owned by the same person or subject to an obligation of assignment to the same person if—

(A) the claimed invention was made by or on behalf of parties to a joint research agreement that was in effect on or before the date the claimed invention was made;

(B) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and

(C) the application for patent for the claimed invention discloses or is amended to disclose the names of the parties to the joint research agreement.

(3) For purposes of paragraph (2), the term “joint research agreement” means a written contract, grant, or cooperative agreement entered into by two or more persons or entities for the performance of experimental, developmental, or research work in the field of the claimed invention.
Understanding the America Invents Act

- The reference in pre-AIA § 103(a) to the “time the invention was made” has disappeared from new § 103. Thus, the date of invention has no relevance to the determination of obviousness for a claimed invention subject to new § 102(a). Obviousness under the AIA is determined as of the effective filing date for the claimed invention.
- Though of no conceivable substantive significance, the more colloquial word “though” is replaced with a more formal and standard phrase, “notwithstanding that.”
- Finally, and of noteworthy import, the pre-AIA terminology found in § 103 for characterizing the test for novelty under § 102, “identically disclosed or described,” has now been truncated to “identically disclosed.” There is no longer any reference to subject matter that has been “described” as destroying § 102 novelty for a claimed invention. This change necessarily indicates that the term “disclosed” is now a generic one, for which being “described” is merely one species of being “disclosed.” Why so? Congress, self-evidently, did not intend that “descriptions” would no longer constitute prior art, but instead determined that a single term, “disclosed,” could encompass any subject matter that could qualify as prior art under § 102(a)’s definition for the term, irrespective of means or method of disclosure.

This final, subtle change in new § 103, together with the subsequent reference to the new definition of “prior art” in § 102 was an indication by Congress that all forms of prior art arise from disclosures, that is subject matter that has been disclosed. This means that a “disclosure” is now the sole route by which subject matter qualifies as prior art under new § 102(a). As will be discussed later, new § 102(b) then dictates what disclosures and subject matter disclosed (or publicly disclosed) can be disqualified as prior art under the AIA’s newly crafted statutory exceptions. Hence, an appreciation of this new § 103 subtlety is essential to a clear understanding of new § 102, which (as just noted) makes extensive use of the terms “disclosed,” “disclosure,” “publicly disclosed,” and “subject matter disclosed,” each of which must be given a meaning that is consistent with—indeed, dictated by—the use of the term “disclosed” in § 103.

The sum and substance of new § 103, therefore, is that no change is being made to the legal standard for non-obviousness aside from the changes being made to what is and is not a disclosure qualifying as prior art to a claimed invention. The new terminology used in new § 103, if anything, makes the substantive law somewhat clearer and more precise through defined terminology.

As a second preliminary matter, before moving on to a discussion of the metamorphosis of new § 102 from its pre-AIA version, it is necessary to gain a perfect understanding of the new-to-the-statute term “effectively filed.” This understanding requires an appreciation of the differences between two similarly sounding terms—“effective filing date” and “effectively filed.”

What follows in the next section is a regrettably long story, but revealing the ending in advance should be reassuring. Neither of these two terms is defined or applied in the new statute in a way that modifies in any respect well established, commonly understood, and consistently applied principles of pre-AIA patent law.
Comparing the Terms “Effective Filing Date” and “Effectively Filed”

As noted earlier, new § 102’s definition for the term “effectively filed” is essential to understanding what subject matter qualifies as prior art to a claimed invention. Subject matter in an earlier patent filing can qualify as prior art as of when the subject matter was “effectively filed.” The date when such subject matter was effectively filed must be before the effective filing date for a claimed invention to qualify as prior art to the claimed invention.

The fullest understanding of these two concepts can, again, be best appreciated from a side-by-side comparison of the definitions for “effective filing date” in new § 100(i)(1) and “effectively filed” in new § 102(d):

**AIA § 100(i)(1):**

(i)(1) The term ‘effective filing date’ for a claimed invention in a patent or application for patent means—

(A) if subparagraph (B) does not apply, the actual filing date of the patent or the application for the patent containing a claim to the invention; or

(B) the filing date of the earliest application for which the patent or application is entitled, as to such invention, to a right of priority under section 119, 365(a), or 365(b) or to the benefit of an earlier filing date under section 120, 121, or 365(c).

**AIA §102(d):**

(d) PATENTS AND PUBLISHED APPLICATIONS EFFECTIVE AS PRIOR ART.—For purposes of determining whether a patent or application for patent is prior art to a claimed invention under subsection (a)(2), such patent or application shall be considered to have been effectively filed, with respect to any subject matter described in the patent or application—

(1) if paragraph (2) does not apply, as of the actual filing date of the patent or the application for patent; or

(2) if the patent or application for patent is entitled to claim a right of priority under section 119, 365(a), or 365(b), or to claim the benefit of an earlier filing date under section 120, 121, or 365(c), based upon 1 or more prior filed applications for patent, as of the filing date of the earliest such application that describes the subject matter.

Several items of significance emerge from the above comparison:

- There is a common structure to both definitions in that (as noted earlier) both treat the actual filing date of the application or patent, by default, as the “effective filing date” or the date “effectively filed.” However, an earlier patent filing date can override this default date. This is possible in the situation where a claim has been made in the patent filing to a right of priority or benefit—and entitlement to claim priority or benefit exists. 39

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39. At the risk of belaboring the self-evident, there are three separate questions of relevance: Has a claim for priority or benefit been made? Is the application or patent, for which a claim for priority or benefit has been made, in fact entitled to claim such priority or benefit? Is the application or patent, for which entitlement to claim prior or benefit has been established, in fact entitled to priority or benefit with respect to one or more claimed inventions?
The two definitions, however, do not impose identical requirements. In order for an effective filing date for a claimed invention to be based on the date of an earlier patent filing—in addition to both claiming and being entitled to claim priority or benefit of the earlier patent filing—the earlier patent filing must contain a sufficient disclosure of the claimed invention. “Effective filing dates” just as under the pre-AIA patent law, turn not just on claiming and being entitled to claim priority/benefit, but on entitlement in fact to priority/benefit based upon a § 112(a) disclosure of the claimed invention in the earlier patent filing.

In order for subject matter in an earlier patent filing to qualify as being effectively filed based on an earlier patent filing, the only requirements are that a claim for priority/benefit has been made and entitlement to claim priority/benefit exists. The further requirement for entitlement in fact to priority/benefit does not appear in the new § 102(d) definition. While not explicitly set out in the new statute, entitlement to claim priority/benefit requires that each of the relevant requirements in § 119 or § 120, as the case may be, be met. Since the term “effectively filed” is defined in terms of subject matter in a patent-filing, not in terms of a claim or a claimed invention, there is no relevance to the § 119 or § 120 requirements that apply specifically to claims and claimed inventions. Thus, the non-relevant requirement with respect to the “entitled to claim” issue is the requirement for an adequate (e.g., enabling) disclosure in the earlier patent filing with respect to a claim or claimed invention. Again, this is not a change in the substance of the patent law. Subject matter described in any manner, once it qualifies as prior art, is prior art for whatever it teaches a person of ordinary skill in the art. The definition for “effectively filed” was careful, therefore, not to change the patent law in this respect.40

In a similar vein, when the effective filing date of a claimed invention is being assessed (i.e., the definition in § 100(i) is being applied), the earlier patent filing, for which the priority or benefit is being sought, need not contain a claim to the claimed invention. No requirement exists that the earlier patent filing contain any claim whatsoever. Indeed, the phrase “containing a claim to the invention” appears in § 100(i)(1)(A), but does not appear in § 100(i)(1)(B). What this means, of course, is that the sole (and self-evident) requirement for a claim or claimed invention exists only with respect to the application or patent whose patentability or validity is being assessed.41

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40. When a description in a document qualifies as prior art, it is prior art for whatever it teaches a person of ordinary skill in the art. If the prior art description does not provide an enabling disclosure as of the date of the prior art, it will not destroy the novelty of a claimed invention unless, by the time of the effective filing date of the claimed invention, that prior art description had become enabling. See In re Samour, 571 F.2d 559 (CCPA 1978). Thus, an earlier patent filing may contain a disclosure of a machine for which no known or obvious technology exists for manufacturing that machine. While the description of the machine itself is prior art, it would not destroy the novelty or non-obviousness of a claim to the machine in a subsequent patent filing. However, if new manufacturing methodologies became available after the subject matter in the patent filing was effectively filed that afforded an obvious method for constructing the machine, the prior art description would anticipate a claim to the machine with a later effective filing date.

41. The intent of this paper is not to belabor the obvious, but this issue has been the subject of much commentary. Any construction of § 100(i) that would require that the earlier
The sources for being able to make a claim to priority or benefit (or being entitled in fact to such priority or benefit) are identical in both definitions. Those earlier patent filings that may be the basis for such claims are U.S. provisional patent filings, U.S. nonprovisional patent filings, foreign national (or regional) priority patent filings, and international patent filings under the Patent Cooperation Treaty.

As noted above, to qualify an earlier patent filing as the effective filing date for a claimed invention, not only must the application or patent, in which the claim to the invention appears, be entitled to claim priority or benefit, but an actual entitlement to such benefit (with respect to the claimed invention) must exist. Self-evidently, the entitlement-in-fact to benefit must be assessed claim by claim, given that each claim of an application or patent represents a separate claimed invention.

The entitlement-in-fact assessment is a straightforward one. As noted above, it demands that the claimed invention be sufficiently disclosed under § 112(a) in the early patent filing, both identifying the embodiments of the claimed invention and enabling them to be put to a specific, substantial and practical use.

On the other hand, whether subject matter described in a patent filing has been effectively filed—as of an earlier date than the actual filing date for the application or patent in which the subject matter appears—requires only entitlement to claim the priority or benefit of the earlier patent filing, not entitlement-in-fact to benefit itself for any claimed invention. As noted above, the entitlement to claim benefit is governed by § 120 of title 35 and requires copendency and naming of the same inventor or a common joint inventor from the earlier patent filing. The right to make a claim for priority is largely governed by § 119 and demands that the later patent filing be within a one-year period as prescribed under the Paris Convention and a commonality of the real party in interest as between the priority application and the subsequent (nonprovisional) patent filing.

While this seemingly subtle difference between the two definitions may appear at first glance to be obscure, it constitutes an essential difference to assure that the pre-AIA law is left unchanged. A short review, putting the statutory language into practice, confirms the operation of the new statute leaves existing patent law unchanged.

In the simple case where there is only a single patent filing of relevance to the filing date to be accorded to a claimed invention or the date on which subject matter in a patent filing is deemed to qualify as prior art, then the two definitions reduce to the identical outcome. A claimed invention in a patent application is always considered to have as its effective filing date the actual filing date of the application or patent in which the claim appears, albeit the claim appearing in

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42. 35 U.S.C. § 111(b) and 35 U.S.C. § 119(f).
43. 35 U.S.C. § 111(a) and 35 U.S.C. § 120.
that application or patent may not be sufficiently disclosed under § 112(a) as of that date to merit a valid patent issuing (or having issued) on the application for patent.

- In the case where an earlier-filed published patent application or issued patent contains no claim for priority or benefit, then exactly the same considerations apply in determining its effect as prior art. All of the subject matter in the published application or issued patent is considered to have been effectively filed as of the actual filing date of the patent or application for patent. In other words, as noted above, the application or patent is to be treated for prior art purposes as having been published on the date of filing and—as such—is treated in exactly the same manner as any other type of publication would have been treated as prior art.

- Similarly, where the published patent filing or issued patent has on its face a claim to priority or benefit—and the claim is a legitimate one under § 119 or § 120—then the description in the earlier patent filing or filings must be looked to in order to determine that earliest such filing date that contains the same description that is found in the published application. The commonality of description with the application where the claim of priority or benefit was legitimate is all that is needed for the subject matter to have been effectively filed as of the date of such earlier patent filing. In this sense, the commonality of description test replaces the sufficiency of disclosure test applied to a specifically claimed invention.

Treating a published patent filing as prior art when effectively filed—and aligning that prior art treatment to be identical to the treatment that would have applied had the patent filing been published on the filing date—requires certainty that any potentially contrary Federal Circuit jurisprudence would be overruled legislatively and no longer followed. Congress clearly intended to do just that. Indeed, assuring a clear and unambiguous statutory law was reason enough for a codification of the term “effectively filed,” since it afforded the Congress the opportunity to provide both a crisp codification and dispositive legislative history.

The potentially problematic precedent was the Federal Circuit’s 1981 Wertheim decision.46 The Wertheim holding could be read to require that subject matter in a patent filing would be considered as having been effectively filed only if a patent could be issued on such subject matter based on the disclosure in the patent filing. The Senate deliberations on the AIA produced the following commentary on Wertheim, as well as the connection between Wertheim and types of disclosures that become prior art:

Paragraph (2) [of § 102(a)] is intended to overrule what remains of In re Wertheim, 646 F.2d 527 (CCPA 1981), which appeared to hold that only an application that could have become a patent on the day that it was filed can constitute prior art against another application or patent. . . .

The caselaw also teaches that parent applications to the published application set the effective date of the prior art if they describe the invention and the invention is enabled before the filing of the patent under review, even if that prior-art description, standing alone, may not be adequate to show enablement. This point is illustrated by Application of Samour, 571 F.2d 559, CCPA 1978, which holds that prior art

art must be enabled before the effective filing date of the application or patent under review, but this enablement need not be disclosed at the same place and time as the primary reference relied on as prior art—and can even come later than the primary reference, so long as it still comes before the effective-filing date of the application under review.\footnote{157 Cong. Rec. S1369 (daily ed. Mar. 8, 2011) (statement of Sen. Kyl).}

The application of these principles is readily apparent from a relatively simple example. Consider the situation where a nonprovisional application was actually filed as of date IV, and then later published as of date V, with claims to three earlier-filed provisional patent applications having sequential filing dates I, II, and III (see figure on next page). If the initial provisional filing on date I disclosed only embodiment A and was followed by the second provisional filing disclosing only embodiments A and B, the third provisional filing disclosing embodiments A, B and C, and, finally, the nonprovisional filing that continued the disclosure of embodiments A and C (but not B) and added a new embodiment D, this sequence of filings and disclosures would produce “effectively filed” outcomes as follows:

- Only the subject matter disclosed in the nonprovisional filing could have an earlier effective filing date than the publication date of the nonprovisional application. Thus, embodiment B does not fall within the “effectively filed” definition and does not constitute prior art based on when it was “effectively filed.” Thus, it can become prior art only as of the date when it was made available to the public [date V].\footnote{See Bruckelmyer v. Ground Heaters Inc., 445 F.3d 1374 (Fed. Cir. 2006.) Once a patent issues or a pending patent application is public, the contents of the application, including priority patent filings become publicly accessible and thereby constitute prior art. The availability to the public on date V of the provisional filing made on date II renders it prior art as of date V—its public accessibility date.}

- Embodiment D was effectively filed as of the actual filing date of the published nonprovisional patent application [date IV]. No earlier patent filing contains a disclosure of the same subject matter, preclude an earlier date on which this embodiment was effectively filed.

- This leaves only embodiments A and C that become prior art on earlier dates [dates I and II, respectively], given that the same disclosure appears both in the published patent filing and an earlier patent filing for which a right \textit{to claim} benefit or priority have been established.

In summary, knowing that:

1. the term “claimed invention” is now defined as the subject matter of a claim in an application or patent;
2. the “effective filing date” for a claimed invention is now defined as the filing date of the earliest application for which \textit{entitlement} to a right of priority or benefit has been established (otherwise, the effective filing date defaults to the actual filing date of the application or patent containing the claim);
3. for the purposes of determining when a patent filing qualifies as prior art to a claimed invention, the term “effectively filed” simply treats descriptions com-


\footnote{See Bruckelmyer v. Ground Heaters Inc., 445 F.3d 1374 (Fed. Cir. 2006.) Once a patent issues or a pending patent application is public, the contents of the application, including priority patent filings become publicly accessible and thereby constitute prior art. The availability to the public on date V of the provisional filing made on date II renders it prior art as of date V—its public accessibility date.}
mon among a published patent application and any earlier priority/benefit patent filings as though the earlier patent filings had been published as of the date the filing was filed;

(4) the term “prior art” is now actually defined in the patent statute (as the heading of § 102(a) now indicates); and

(5) the term “disclosed” is now the sole generic descriptor in § 103 for characterizing the manner in which subject matter can qualify as prior art,

the stage is set for taking new § 102 on a shakedown cruise, by exploring how pre-AIA law became the AIA text for § 102.

Building New § 102(a): The Step-by-Step Construction

Step Zero: Understanding the Drafting Challenge of Pre-AIA § 102

To understand the difficulty that Congress faced in building new § 102 requires a sober understanding of pre-AIA § 102 and the challenges its original drafting in the 1952 Patent Act presented.

One of the most frustrating aspects of U.S. patent law prior to the AIA was the deficient manner in which the drafters of the 1952 Patent Act elected to codify the most crucial patentability elements of the patent law in pre-AIA § 102. Much of the 1952 Patent Act was intended to leave the substantive patent law unchanged, i.e., to faithfully recodify rather than modify the patent law. This faithfulness principle was specifically intended to apply to § 102 of the 1952 Patent Act, where Congress simply took the prior statutory language and sought to do little more than merely rearrange it, rather than make any effort to revise the pre-1952 statutory language with an eye to greater clarity or accuracy.49

The 1952 Patent Act codification of § 102, however simple its intent, produced a rather complicated result, particularly if the objective was to produce an understanding of the substantive patent law from a literal reading of the statute. For example, while at least four separate subsections of § 102 under the 1952 codification defined the subject matter that could constitute “prior art,” these subsections were not distinct from one another but contained overlap, such that an item of prior art could simultaneously fall under multiple subsections.\(^{51}\)

The most problematic of the overlapping prior art provisions of the pre-AIA statutory provisions relating to prior art were the overlapping provisions of pre-AIA § 102(a) and pre-AIA § 102(b). Apparently, this overlap was conscious and knowing.\(^{52}\) Worse than the complexity of overlapping provisions was the divergence between the actual, literal language in the 1952 statutory codification and the actual patent law that theretofore had been—and continued thereafter to be—applied by the courts under pre-AIA § 102(a) and § 102(b).

What the statute literally dictates that the patent law must be, the courts have clearly said that it is not. Until the AIA, Congress simply depended on the courts to make sense of the patent law. For its part, Congress for the last 60 years has simply left inapt and inaccurate language in the patent statute—apparently with confidence that the courts would never follow the pre-AIA patent law as written.

While the preceding paragraph reads as a damning indictment of the drafting of the patent statute, some modest justification for such strong words lies in a side-by-side comparison of the actual 1952 “statutory law” and the “real patent law,” that is, the incontestible judicial construction of the law:

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50. At least subsections (a), (b), (e), and (g) of pre-AIA § 102 are employed under pre-AIA § 103 for determining obviousness and, thus, must be or contain “prior art” provisions.

51. Pre-AIA § 102(e) made certain earlier-filed applications of others, if filed before the invention date the claimed invention. However, an early patent filing amounts to a constructive reduction to practice of any invention for which the earlier patent filing provides a complete conception and, thus, such subject matter was also encompassed by the more general provision of pre-AIA § 102(g), under which all prior inventions of others, not abandoned, suppressed or concealed, became prior art.

52. “Paragraphs (b), (c) and (d) [of pre-AIA § 102] recite conditions under which a once existing right to a patent may be lost, although there is some overlap in paragraphs (a) and (b).” Federico at 179.
The Actual Patent Law Principles as Judicially Applied Based on Pre-AIA § 102(a) and § 102(b)

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country in a manner rendering it available to the public, 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

(1) in public commercial use or on commercially offered for sale, other than for experimental purposes, in this country by such person or its privies or

(2) in public use or on sale otherwise available to the public in this country, more than one year prior to the date of the application for patent in the United States....

From the foregoing, it is self-evident just how pervasively pre-AIA § 102(a) and § 102(b) fail as accurate codifications of the law applied by the courts. The failure resides in each of the following elements.

- The prior art provisions of pre-AIA § 102(a), in important respects, were drafted with overly broad language. Pre-AIA § 102(a) literally mandates more subject matter be deemed prior art than in reality exists—at least insofar as the courts are concerned. The actual judicial construction of § 102(a) limits the reach of the terms “known or used” no farther than to ensnare only subject matter available to the public as prior art, not secret or private knowledge or uses. This problem with pre-AIA § 102(a)’s codification was contemporaneously recognized in the Revision Notes to the 1952 Patent Act, where the reviser expresses apparent frustration with the failure of Congress to make an accurate, plain-English codification of congressional intent for interpreting pre-AIA § 102(a):

  The interpretation by the courts of paragraph (a) [of pre-AIA § 102] as being more restricted than the actual language would suggest (for example, known has been held to mean publicly known) is recognized but no change in the language is made at this time.  

- While pre-AIA § 102(b) applies on its face equally to acts and actions taken by or on behalf of the inventor (including its privies) and acts and actions taken by

Pre-AIA § 102 Conditions for patentability; novelty and loss of right to patent

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

From the foregoing, it is self-evident just how pervasively pre-AIA § 102(a) and § 102(b) fail as accurate codifications of the law applied by the courts. The failure resides in each of the following elements.

- The prior art provisions of pre-AIA § 102(a), in important respects, were drafted with overly broad language. Pre-AIA § 102(a) literally mandates more subject matter be deemed prior art than in reality exists—at least insofar as the courts are concerned. The actual judicial construction of § 102(a) limits the reach of the terms “known or used” no farther than to ensnare only subject matter available to the public as prior art, not secret or private knowledge or uses. This problem with pre-AIA § 102(a)’s codification was contemporaneously recognized in the Revision Notes to the 1952 Patent Act, where the reviser expresses apparent frustration with the failure of Congress to make an accurate, plain-English codification of congressional intent for interpreting pre-AIA § 102(a):

  The interpretation by the courts of paragraph (a) [of pre-AIA § 102] as being more restricted than the actual language would suggest (for example, known has been held to mean publicly known) is recognized but no change in the language is made at this time.  

- While pre-AIA § 102(b) applies on its face equally to acts and actions taken by or on behalf of the inventor (including its privies) and acts and actions taken by

others (acting independently from the inventor), the courts interpret the same words in the statute differently—and more expansively—when applying them to the inventor’s acts and actions as compared to acts or actions by others. As Congress wrote the statute, this is a categorically impossible interpretation of the actual statutory provision.

- For acts undertaken by the inventor or those in privy with the inventor, a § 102(b) “public use” need not be public to destroy the right to patent an invention, at least under the patent law applied by the courts. This, most bizarrely, represents just the opposite of the defect that Congress placed in § 102(a) by omitting the word “public” where its presence was required for an accurate codification.

- This same bizarre defect applies to the term “on sale” when applied to acts of the inventor and its privies. As applied by the courts, the term “on sale” is not given an ordinary English-language meaning in that it does not require that an invention actually be on sale and, thus, available for purchase by members of the public. The patent law only requires that, in the case of acts undertaken by the inventor or its privies, an offer for sale has been made, even if done in secret. Thus, in the context of acts or actions by the inventor and its privies, neither the term “public use” or “on sale” is given its plain English meaning by the courts in applying pre-AIA § 102(b). Rather, what the courts make of these terms, when dealing with acts and actions that are inventor-focused, is to allow them to reach any commercial use, whether or not public, and any offer for sale, whether or not the subject matter of the offer is actually on sale and available for purchase by members of the public. In effect, commercialization by the inventor can forfeit the inventor’s right to patent, even if the invention is literally neither “in public use,” and thereby available to the public, nor “on sale,” and thereby available for purchase by members of the public. 54

- To compound the deficiency of the inventor-focused aspect of pre-AIA § 102(b), it fails to account for the “experimental use doctrine” under which the inventor’s commercial acts or actions are nonetheless excused if they are for experimental purposes, i.e., to test the invention to confirm its operability or suitability for its intended purpose. At a minimum, therefore, pre-AIA § 102(b) omits a huge body of nuanced patent law as applied by the courts. 55

54. This interpretation of § 102(b) arises from the continued application by the courts of the doctrine in Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516 (2d Cir. 1946). This decision lays out the doctrine that the inventor’s commercialization, even if done in secret, but not the secret activities of others, forfeits the inventor’s right to patent: “[I]t is a condition upon an inventor’s right to a patent that he shall not exploit his discovery competitively after it is ready for patenting; he must content himself with either secrecy, or legal monopoly. . . .” After a one-year “grace period,” an inventor’s non-public commercial use “forfeits his right [to patent] regardless of how little the public may have learned about the invention. . . .” Id. at 520. However, the same non-public use by an unrelated party imposes no such loss of right to patent through forfeiture. In the situation in which “it was not the inventor, but a third person who used the machine secretly and sold the product openly, . . . there was therefore no question either of abandonment or forfeiture by the inventor.” Id. at 519.

Lastly, as noted above, § 102(b) creates prior art, irrespective of whether the acts and actions are by the inventor or by another. For acts or actions by unrelated persons—those independent from the inventor or its privies—no experimental use doctrine is applicable. For acts or actions by these unrelated persons, to be “in public use” requires just what the plain language suggests: that the subject matter disclosed via the use be available to the public, such that secret or other non-public uses of others are not recognized by the courts to constitute prior art under pre-AIA § 102(b). Similarly for acts or actions by unrelated persons, for subject matter to be “on sale,” requires that the subject matter in question be available for purchase by members of the public. In this context, secret or private offers for sale by someone other than the inventor or its privies are not recognized by the courts as prior art under pre-AIA § 102(b). For pre-AIA § 102(b) prior art arising from acts or actions of unrelated persons, the courts—in very simple terms—impose precisely the same overarching requirement for availability to the public that the courts read into pre-AIA § 102(a).

Thus, in crafting a new § 102, Congress was obliged to deal with an amazingly inscrutable provision at the heart of the patent law—truly understandable only to patent cognoscenti able to read into the statute passages not present and read out of the statute words and meanings that were clearly present. Since pre-AIA § 102 could neither be simply copied nor fully disregarded, how much of the pre-AIA terminology should Congress have carried over into the new law? How best could the Congress assure that any new law it might craft could simply be followed as drafted, rather than seemingly divined from knowledge of ancient practices and precedents?

### Step One: Conscious Congressional Subtraction from Pre-AIA § 102

Congress faced a significant challenge in crafting new § 102 for a second reason. It was fundamentally remaking substantive patent law—its stated purpose was “to provide for patent reform.” It could not resort to the cut-and-paste approach of the drafters of the 1952 Patent Act. Indeed, it faced potential risks using any elements from pre-AIA § 102 as a template for a new statute.

In wrestling with the inapt codification found in the pre-AIA statutory language and contending with long-established meanings for statutory terminology, it is clear from the legislative history that Congress sought to accomplish four historic objectives—

1. create a simple and substantially transparent standard under which subject matter could qualify as prior art to a claimed invention,
2. erase each of the ancient “loss of right to patent” provisions from pre-AIA § 102,
3. impose an overarching requirement that no subject matter could qualify as prior art to a claimed invention unless made available to the public—just as the courts applied to acts and actions “by others” under pre-AIA §§ 102(a) and (b), and
4. leave as much of settled patent law settled in the course of working the various reforms.

As suggested earlier, it is tempting to see the path chosen by Congress in the drafting of the AIA as nothing more than a repeal and replacement of the pre-AIA § 102 with an
entirely new section of title 35. However, a more careful look at pre-AIA § 102 and new § 102(a) indicates that Congress was careful to keep vestiges of the old statute as it created a new one. It actually avoided a full ground-up rewrite of pre-AIA § 102 by conscientiously employing language and structure from the pre-AIA law to accomplish the above goals—in a deliberate effort not to unsettle patent law that required no unsettling.

This chosen path forward aimed to both minimize any possible uncertainty or ambiguity over the intent of the language and—miraculously—require the development of no substantively new patent law concepts. The assertion in the previous sentence bears repetition—Congress crafted a new patent law with prior art provisions devoid of new substantive concepts.

How can it possibly be that Congress could rewrite the law of prior art—indeed, radically reform it—without requiring that substantively new concepts be established? Part of the answer to this question lies in the process of conscious subtraction that Congress employed in creating new § 102. Indeed, the first step to understanding the process Congress employed to create new § 102 is to identify what is entirely missing in new § 102 (and, thus, without any counterpart in the new statute) and then to look at the nature of the metamorphosis of what was retained.

This process of conscious subtraction is most graphically evident by reproducing the pre-AIA § 102 and then striking through all the elements that have no counterpart whatsoever in new § 102(a), the subsection of § 102 under the AIA that now defines novelty and prior art:

§ 102 Conditions for patentability; novelty and loss of right to patent
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
(c) he has abandoned the invention, or
(d) the invention was first patented or caused to be patented, or was the subject of an inventor’s certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor’s certificate filed more than twelve months before the filing of the application in the United States, or
(e) the invention was described in (1) an application for patent, published under section 122(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, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language, or
(f) he did not himself invent the subject matter sought to be patented, or
(g)(1) during the course of an interference conducted under section 135 or section 291, another inventor involved therein establishes, to the extent permitted in
section 104, that before such person’s invention thereof the invention was made by such other inventor and not abandoned, suppressed, or concealed, or

(2) before such person’s invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

With the strikethroughs removed, the backbone of pre-AIA § 102 from which the new § 102 arose is the following: 56

§ 102 Conditions for patentability; novelty
A person shall be entitled to a patent unless— . . .

(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 . . .

(e) the invention was described in (1) an application for patent, published under section 122(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 . . . .

Under the AIA, thus, the new § 102(a)(1) can be viewed as having pre-AIA § 102(b) as its statutory origin. Similarly, new § 102(a)(2) can be viewed as having pre-AIA § 102(e) as its genesis. Again, what is preserved from the pre-AIA law and what is added or modified under the AIA can now be best illustrated by looking at the new AIA statutory language and corresponding pre-AIA provisions on a side-by-side basis, as will be set out below.

These comparisons appear below, first for prior “public disclosures” that represent prior art under § 102(a)(1) and then for the earlier “patent-filing disclosures” that represent prior art under § 102(a)(2). Before tackling the word-by-word comparisons, however, it is worth examining why Congress elected to use pre-AIA § 102(b), rather than pre-AIA § 102(a), as the starting template for the new § 102(a)(1).

Step Two: Choosing Pre-AIA § 102(b) as New § 102(a)(1)’s Backbone

Of the many methods Congress could have used, first, to carry out its intent to impose an overarching requirement for availability to the public and, second, assure that public disclosures could constitute prior art when made by any means or method whatsoever, it is apparent that Congress could have picked either pre-AIA § 102(a) or pre-AIA § 102(b) as the starting point for crafting new § 102(a)(1)’s provisions on prior public disclosures

56. In terms of verbiage, pre-AIA § 102 contained 424 words, with all but 117 of them being erased and having no counterpart in new § 102(a). In quantitative terms, the AIA eliminated begins with the conscious subtraction of 73 percent of the original statutory text.
being prior art. The congressional choice was made difficult, as noted above, by the
defective manner in which both pre-AIA §§ 102(a) and (b) were originally enacted—and
never remedied—during the 60 years following their 1952 enactment:

Self-evidently, crafting new § 102(a)(1) from pre-AIA § 102(a) was a potentially
viable choice because the defects in its codification were clearly documented in legislative
history. However, pre-AIA § 102(a) was intended only as non-inventor prior art and, thus,
did not make any of the inventor’s own work prior art—ever.

In 1952, Congress left it to pre-AIA § 102(b) to define when the inventor’s own acts
or actions could result in prior art and wrote pre-AIA § 102(b)’s provisions, literally at
least, to apply in equal measure to inventors and their privies as well as unrelated persons.
Because the AIA approach was to simplify the definition of prior art and discard the two-
part prior art provision—one provision applying only to the prior art arising from anyone
other than the inventor and the second provision applying to prior art arising from anyone
inclusive of the inventor—this desired simplification provided at least a plausible rationale
for starting with the text from pre-AIA § 102(b) to formulate new § 102(a)(1).

Second, as can be clearly seen by the comparison set out in detail below, little surgery
was actually needed to morph pre-AIA § 102(b) into new § 102(a)(2). It required some
small excisions, some modest augmentation, and a key substitution for this statutory
morphing of pre-AIA § 102(b) into new § 102(a)(1). Pre-AIA § 102(b) already encom-
passed as prior art subject matter both disclosures directly or indirectly arising from the
inventor’s own work and disclosures that were the independent work of others. Architec-
turally, therefore, moving the relevant date for prior art to the effective filing date for the
claimed invention, removing other geographic-based references, and imposing the
overarching requirement for public accessibility were the only significant changes needed
to create the new public-disclosure prong of the new definition for subject matter that can
qualify as prior art.

Third, Congress could explicitly and assuredly overrule the pre-AIA “forfeiture” doc-
trine only by tackling pre-AIA § 102(b) itself. The necessity of tackling pre-AIA § 102(b)
arises in large measure because, as is clear from the above comparison between the law as
laid out literally in the statute and the law as applied by the courts, there is no provision in
title 35, United States Code, that so poorly states the actual patent law. By injecting the
overarching requirement for public availability into pre-AIA § 102(b), it could prevent
any construction of that provision from encompassing a secret commercial use or a secret
offer for sale.

Thus, Congress had the opportunity, by starting with pre-AIA § 102(b), not only to
accurately codify the new patent law, but also to assure that it effectively eliminated the
various loss of right to patent provisions. This included clear statutory language, con-
firmed in the relevant legislative history, that the provision on forfeiture based upon
commercial uses not available to the public would no longer exist.

Step Three: Crafting the “Public Disclosures” Provision in § 102(a)(1)

Given the congressional starting point of pre-AIA § 102(b) as the starting point for the
new provision qualifying prior public disclosures as prior art, a full and nuanced under-
standing of the craftsmanship that created new § 102(a)(1) emerges from a side-by-side
look at the new provision compared to the pre-AIA law:
New § 102(a)(1)
(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**;

Pre-AIA § 102(b):
A person shall be entitled to a patent unless—

(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**,

From the above comparison, it appears self-evident that:

- Congress provided a definition for the term “prior art” in new § 102(a), *i.e.*, subject matter qualifying under paragraphs (1) and (2) of this subsection taken together, so that the subsequent uses of the term “prior art” in new § 102 and § 103 would have a clear antecedent. Unlike the pre-AIA § 102 where the term “prior art” does not appear at all, the term “prior art” is now used in § 102 multiple times. New § 102(a), thus, defines the **disclosures** that can qualify as **prior art**. Further, for a disclosure that has qualified as prior art under new § 102(a), new § 102(b) sets forth “exceptions.” These exceptions relate to subject matter that “shall not be **prior art** to a claimed invention,” thus providing yet another explicit reference to the term “prior art” in new § 102. Moreover, the term “prior art” appears for a final time in subsection (d) of new § 102 in connection with the definition of when subject matter contained in a patent-filing disclosure is or is not **effectively filed** early enough to constitute “prior art.”

- The term “claimed invention,” now defined in the patent statute, is used in place of the term “invention.” This affords complete precision as to the statutory meaning, but represents no change in substance.

- All the grounds for “loss of right to patent” are now stricken from § 102. While the pre-AIA § 102 explicitly references “loss of right to patent” in its heading for the section, that reference is now gone from new § 102. New § 102 relates only to “novelty” as a “condition for patentability.” Congress thusly signaled that no “loss of right to patent” could exist under new § 102, unless one were to consider lack of novelty over the prior art as such.

- All geographic considerations that impact whether a pre-filing disclosure is or is not prior art have been eliminated from the patent statute. Gone are references to “in this country,” “in the United States,” and “in this or a foreign country.”

- The operable date for assessing prior art becomes the “effective filing date” for a “claimed invention,” with both the term “claimed invention” and the term “effective filing date” now being explicitly defined in the patent code.
The terms “patented” and “described in a printed publication” both remain unchanged. They continue to define sources of pre-filing disclosures that may qualify as prior art. As under current law, both depend upon the availability to the public of the subject matter disclosed.

The terms “in public use or on sale” have been further modified and qualified by a new phrase that reads in its entirety: “in public use, on sale, or otherwise available to the public.” Congress employed this mechanism to impose an overarching requirement for availability to the public in order for a prior disclosure to constitute prior art. At the same time, Congress opened the definition of what can qualify as prior art to disclosures made by any means or method resulting in availability to the public. In this latter respect, Congress effectively added to the pre-AIA § 102(b) backbone of new § 102(a)(1) the import of the “known or used” provision from pre-AIA § 102(a). As noted earlier, the pre-AIA § 102(a) provision was actually understood to mean “known or used in a manner rendering [the claimed invention] available to the public.”

As to the last point, the critics of new § 102(a)(1) have suggested that there is nonetheless the possibility for uncertainty over what the courts may now do with the new statutory language. Specifically, can the new language be somehow read to allow secret uses or secret offers for sale or other secret or private acts, unavailable to the public, to impact patentability under new § 102?

There is abundant ground for confidence that the clarity of the new statutory language will not be negated by the courts and that the new law will be followed as written. The new § 102(a)(1)’s overarching requirement for public availability in order for subject matter to constitute prior art appears fully secured in view of the following:

- The overarching requirement for a disclosure to be “available to the public” has been placed into new § 102(a)(1) in a manner making it virtually impossible to read it other than as an express repudiation of the Metallizing Engineering doctrine. In construing § 102(a)(1), the courts will be faced with interpreting a new statutory provision that in part limits prior art to subject matter “in public use . . . or otherwise available to the public.” It will be a huge hurdle for a litigant to attempt an argument that Congress used the terms “in public use . . . or otherwise available to the public” to indicate that the courts should find non-public uses nonetheless constitute prior art. Indeed, it would appear far-fetched in the extreme that a court would find the new statutory framework an indication that Congress was intending that the explicit addition of new language was a signal that it intended to perpetuate just the opposite—that secret and other non-public uses were to be considered in assessing novelty.

- The very same hurdle arises for someone arguing that Congress meant by the phrase “on sale or otherwise available to the public” to imply that something not available for purchase by members of the public was actually “on sale,” and,

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57. See In re Ekenstam, 256 F.2d 321 (CCPA 1958). Also of note are the provisions of M.P.E.P. § 2126, which state that “[t]he date that the patent is made available to the public is the date it is available as a [pre-AIA] 35 U.S.C. 102(a) or (b) reference.” M.P.E.P. § 2126 (8th ed., Rev. 8).
moreover, that a secret offer for sale, of which the public had no knowledge, sufficed to render subject matter “available to the public.”

- The statute can no longer be credibly read to have any form of “forfeiture” provision based upon acts or actions of the inventor or its privies. It has one relevant prior art subsection that has but one standard that must apply—in the identical manner—to acts and actions of both inventors and their privies and of anyone else. If the statute is open to non-public acts and actions of the inventor, those same acts and actions if taken by an unrelated person have equal status as prior art under new § 102(a)(1). This organization of the statute is utterly inconsistent with an interpretation that an inventor-only forfeiture or other loss of right to patent remains part of new § 102.

- Lastly, and perhaps most persuasively, this new paragraph (1) provision of § 102(a), unlike pre-AIA § 102(b), if it qualifies secret acts or actions as prior art, does so in a manner that would be truly absurd. Paragraph (1) is no longer limited to what transpired at least one year before the U.S. patent filing, but reads on uses taking place even a day before the earliest date on which a patent was sought. It is no longer limited to use in the United States, but use anywhere in the world. It, thus, appears unlikely in the extreme that a court could be convinced that, when Congress adopted the new terminology “in public use . . . or otherwise available to the public,” this was a decision taken to allow secret acts, allegedly performed by someone entirely unrelated to the inventor, acting anywhere in the world, even a day before the inventor sought a patent, could suffice to destroy an inventor’s right to patent an invention.

Such contentions would additionally need to confront the confirmatory legislative history directly on point:58

58. The antipathy of the leading congressional sponsors of the AIA to the forfeiture doctrine, indeed all “loss of right to patent” provisions, can be seen from patent reform bills introduced prior to H.R. 1249 (111th Cong.). In earlier legislative efforts, Congress not only removed such provisions from § 102 through amendment, but also placed transition provisions into the proposed legislation to assure the same reforms applied to existing patents. The manner in which this was to be accomplished provides further confirmation of congressional awareness that the “in public use or on sale” language in pre-AIA § 102(b), while having been interpreted by the courts to provide a forfeiture provision, was not to be so interpreted once the AIA took effect. In this regard, in S. 3600 (110th Cong.), § 2(b) of the bill would have amended § 102 to provide “A patent for an invention may not be obtained if . . . the claimed invention was patented, described in a printed publication, or otherwise made available to the public” (p. 3, lines 11–15). This amended version of § 102 applied all claimed inventions that were to be subject to the new law. Evidence that this use of “available to the public” was to preclude any forfeiture doctrine can be found in the further provisions of the bill additionally providing that for any patent that was not to be subject to the new § 102 provisions, the following limitations would apply, repealing explicitly invalidity based upon any otherwise applicable loss of right to patent provision, including the “forfeiture” doctrine of Metallizing Engineering (p. 93, line 24 to p. 94, line 18) (emphasis added):

(A) the provisions of subsections (c), (d), and (f) of section 102 of title 35, United States Code, that were in effect on the day prior to the date of enactment of this Act shall be deemed to be repealed;
Another one of the bill’s clear improvements over current law is its streamlined definition of the term “prior art.” Public uses and sales of an invention will remain prior art, but only if they make the invention available to the public. An inventor’s confidential sale of his invention, his demonstration of its use to a private group, or a third party’s unrestricted but private use of the invention will no longer constitute private art. Only the sale or offer for sale of the invention to the relevant public or its use in a way that makes it publicly accessible will constitute prior art.59

The present bill’s elimination of the patent forfeiture doctrines in favor of a general public availability standard also limits and reconciles the various purposes that previously have been ascribed to section 102’s definition of prior art. Current 102(b), which imposes the forfeiture doctrines, has been described as being “prima-rily concerned with the policy that encourages an inventor to enter the patent system promptly,” a quotation from Woodland Trust v. Flowertree Nursery, Inc., 148 F.3d 1368, 1370, Fed. Cir. 1998. And the “overriding concern of the on-sale bar” has been described as “an inventor’s attempt to commercialize his invention beyond the statu-tory term,” as stated in Netscape Communications Corp. v. Konrad, 295 F.3d 1315, 1323, Fed. Cir. 2002.

By adopting the first-to-file system, however, the present bill already provides ample incentive for an inventor to enter the patent system promptly. There is no need to also require forfeiture of patents simply because the inventor has made some use of the invention that has not made the invention available to the public. And the current on-sale bar imposes penalties not demanded by any legitimate public interest. There is no reason to fear “commercialization” that merely consists of a secret sale or offer for sale but that does not operate to disclose the invention to the public.60

(B) the amendments made by section 3 of this Act shall apply, except that a claim in a patent that is otherwise valid under the provisions of section 102(f) of title 35, United States Code, as such provision was in effect on the day prior to the date of enactment of this Act, shall not be invalidated by reason of this paragraph; and

(C) the term “in public use or on sale” as used in section 102(b) of title 35, United States Code, as such section was in effect on the day prior to the date of enactment of this Act shall be deemed to exclude the use, sale, or offer for sale of any subject matter that had not become available to the public.

In H.R. 1249, the language “had not become available to the public” was simply recast as a limitation “or otherwise available to the public.” Similarly, in § 11(g) of H.R. 2795 (109th Cong.), a corresponding transition provision exists implementing the same repeal of the forfeiture law for existing patents, but using slightly different language, “exclud[ing] the use, sale, or offer for sale of any subject matter that had not become reasonably and effectively accessible to persons of ordinary skill in the art. . . .” (p. 62, lines 21–24). While the House and Senate ultimately did not adopt these transitional elements removing “loss of right to patent” provisions, including the Metallizing Engineering forfeiture doctrine, these prior legislative efforts again confirm that the principal sponsors of the bills (e.g., Rep. Lamar Smith, R-TX and Rep. John Conyers, D-MI for H.R. 2795 and Sen. Jon Kyl, R-AZ for S. 3600) understood that whatever else new § 102 was to accomplish, it was the repeal of all “loss of right to patent” provisions, most especially the forfeiture doctrine of Metallizing Engineering. With the AIA now the law, it may be that Congress will revisit the possibility that pre-AIA patents might be made subject to the remedial measures as laid out in S. 3600.

Hence, inventors and their legal advisors should have great confidence that § 102(a)(1) under the AIA creates a transparent definition for prior art based upon prior public disclosures, that is public disclosures made before the effective filing date of a claimed invention, and, absent a disclosure made available to the public, there is no basis for any subject matter qualifying as prior art under § 102(a)(1).

**Step Four: Clarifying the “Available to the Public” Standard**

In order for the new patent law to contain no substantively new patent law concepts, then the new phrase in § 102(a)(1) “available to the public” cannot break new doctrinal ground. It would instead need to have a meaning that is well established in pre-AIA judicial precedents.

Fortunately, as with the issue of the “forfeiture” doctrine, Congress left no significant doubt as to the legal framework for implementing the overarching limitation on availability to the public. It was not to be a doctrinal concept new to the law, but an application of settled patent law. In particular, Congress clarified that the same legal touchstone for assessing whether a disclosure in the form of a printed publication will constitute prior art, i.e., the “public accessibility” jurisprudence, will now determine whether a disclosure through any other means or method qualifies a prior art:

Prior art will be measured from the filing date of the application and will typically include all art that publicly exists prior to the filing date, other than disclosures by the inventor within 1 year of filing. Prior art also will no longer have any geographic limitations. Thus, in section 102 the “in this country” imitation as applied to “public use” and “on sale” is removed, and the phrase “available to the public” is added to clarify the broad scope of relevant prior art, as well as to emphasize the fact that it must be publicly accessible.61

Moreover, the fact that the clause “or otherwise available to the public” is set off from its preceding clauses by a comma confirms that it applies to both “public use” and “on sale.” Finisar Corp. v. DirecTV Group, Inc., 523 F.3d 1323, 1336, Fed. Cir. 2008, notes that “when a modifier is set off from a series of antecedents by a comma, the modifier should be read to apply to each of those antecedents.” Thus new section 102(a)(1) imposes a public-availability standard on the definition of all prior art enumerated by the bill—an understanding on which the remainder of the bill is predicated.

Whether an invention has been made available to the public is the same inquiry that is undertaken under existing law to determine whether a document has become publicly accessible, but is conducted in a more generalized manner to account for disclosures of information that are not in the form of documents.

A document is publicly accessible if it has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it and recognize and comprehend therefrom the essentials of the claimed invention without need of further research or experimentation.

That is a quotation from Cordis Corp. v. Boston Scientific Corp., 561 F.3d 1319, 1333, Fed. Cir. 2009. That decision also states that “[i]n general, accessibility goes to

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the issue of whether interested members of the relevant public could obtain the information if they wanted to." See also In re Lister, 583 F.3d 1307, Fed. Cir. 2009.62

The Federal Circuit’s Lister decision provides, in essence, the guidepost for understanding § 102(a)(1) prior art. Public disclosures will represent prior art and will be disclosures, made by any means or method, that have become publicly accessible, i.e., made available to the public, under the criteria that has long applied to assessing whether a “printed publication” represents prior art:

In order to qualify as a printed publication within the meaning of § 102, a reference “must have been sufficiently accessible to the public interested in the art.” Cronyn, 890 F.2d at 1160 . . . . Whether a reference is publicly accessible is determined on a case-by-case basis based on the “facts and circumstances surrounding the reference’s disclosure to members of the public.” Klopfenstein, 380 F.3d at 1350. A reference is considered publicly accessible if it was “disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.”63

Having laid out that such prior “public disclosures” are prior art under § 102(a)(1), the next step for Congress was to lay out the provisions on prior art arising from earlier “patent-filing disclosures” naming another inventor.

Step Five: Earlier “Patent-Filing Disclosures” as § 102(a)(2) Prior Art

All patent filings that become available to the public become prior art under new § 102(a)(1) as of the point at which the patent filing becomes publicly accessible. This happens when a patent issues or when a pending patent application is published before patent grant. New § 102(a)(2) provides that in certain situations subject matter described in a patent filing can become prior art not only on the date the filing becomes publicly accessible, but at an earlier point in time as well, namely as of the time of the patent filing itself.

For subject matter to qualify as prior art as of the patent filing date requires that the patent filing represent either a nonprovisional patent filing in the United States or an international patent filing under the Patent Cooperation Treaty designating the United States. As discussed extensively above, such a patent filing creates prior art for the subject matter it describes as of its effective filing date.

The statutory provision rendering these earlier patent-filing disclosures as prior art when effectively filed is found in § 102(a)(2) and, as outlined earlier, can be regarded as having been derived from pre-AIA § 102(e). The corresponding side-by-side comparison illustrates the origin and relationship between the pertinent elements of these two provisions:

63. In re Lister, 583 F.3d 1225 (Fed. Cir. 2009) (emphasis added).
AIA § 102(a)(2):

(2) the **claimed** invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b),

in which the patent or application, as the case may be, **names another inventor** and was effectively filed before the effective filing date of the claimed invention.

Pre-AIA § 102(e):

(e) the invention was described in

(1) an application for patent, published under section 122(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.

From the above comparison, it appears self-evident that Congress, other than eliminating reference to the date of invention and substituting a reference to the effective filing date for a claimed invention, made only a limited number of substantive changes from pre-AIA § 102(e) to arrive at § 102(a)(2), namely those aspects set out below:

- Congress made the optimal use of defined terms in new § 102(a)(2), by substituting “claimed invention” for the term “invention,” referencing the term “effectively filed” as defined in new § 102(d), and, as noted above, the terms “effective filing date” for the “claimed invention,” both of which are defined terms in amended § 100.
- The organization of new § 102(a)(2) is more streamlined than pre-AIA § 102(e). The dual references to “by another” are replaced with a single (and now more apt) reference to “names another inventor,” signaling a continuation of the pre-AIA law in which an earlier patent filing could be considered prior art to a claimed invention if the earlier patent filing were by another **inventive entity**.
- The reference to earlier-filed patent applications now precedes the reference to issued patents and both the applications and patents of relevance to new § 102(a)(2) are identified by references to other statutory provisions in title 35 (patents to § 151 and applications to § 122).
- The phrase “filed in the United States” that appeared in pre-AIA § 102(e) has no counterpart in § 102(a)(2) given the references to §§ 122 and 151. In addition, the deletion of this term, together with the definition for “effectively filed,” no longer restrict the date when subject matter in a patent was “effectively filed” to a U.S. patent filing.
- The term “deemed published” is added to account for patent filings under the Patent Cooperation Treaty. The term “deemed published” arises in § 374, as amended by the AIA. This provision establishes that every patent filing under

64. *In re Land*, 368 F.2d 866, 151 (CCPA 1966).

65. “The publication under the treaty defined in section 351(a) of this title, of an international application designating the United States shall be **deemed a publication under section 122(b)**, except as provided in section 154(d).” (Emphasis added.)
the PCT designating the United States may constitute prior art under § 102(a)(2), in contrast to existing U.S. patent law providing that a PCT patent filing, even if published, could represent only a disclosure as of its publication date, not its filing date, unless the publication were in the English language. Thus, while every published PCT application will constitute prior art under § 102(a), the prior art date under paragraph (1) will be the publication date and the prior art date under paragraph (2) will be the date effectively filed (inclusive of non-U.S. priority patent filings), but only for U.S.-designating PCT filings.66

Again, the provisions of new § 102(a)(2) meet the standards for transparency, objectivity, predictability and simplicity for disclosed subject matter to constitute prior art. While the prior art rules under § 102(a)(2) have been modified, there are no new substantive legal concepts introduced.

**Under New § 102, the Hilmer Doctrine Becomes Moot**

Under the holding of the Court of Customs and Patent Appeals in the Hilmer appeal,67 pre-AIA § 102(e) barred a foreign priority patent filing from representing prior art under that subsection. Under pre-AIA § 102(e), when subject matter in a patent filing was to be deemed effectively filed was based upon earlier U.S. patent filings only. To be pre-AIA § 102(g) prior art, the date of the effective patent filing in the United States needed to be earlier than the inventor’s “date of invention,” not merely prior to the effective filing date of the inventor’s claimed invention.

However, unlike new § 102(a)(2), pre-AIA § 102(e) was not the provision of the patent statute invoked to prevent multiple patents from issuing to rival inventors both seeking patents on the very same invention. Pre-AIA § 102(e) was simply another of the multiple provisions (as noted earlier, often overlapping provisions) that created prior art. The relevant provision of pre-AIA law that prevented patent proliferation among a multiplicity of rival inventors securing valid patents for the same invention was § 102(g).

Under pre-AIA law, whenever necessary to prevent identical patents from issuing to rival inventors, pre-AIA § 102(g) would effectively trump the Hilmer limitation of pre-AIA § 102(e) by—in effect—treating the foreign patent filing priority date the relevant patentability-defeating date. Indeed, such trumping was routine in patent interference contests.68

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66. Rule 4.9(a), Regulations Under the Patent Cooperation Treaty, now provides: “The filing of a request [for a PCT patent filing] shall constitute . . . the designation of all Contracting States that are bound by the Treaty on the international filing date. . . .” See http://www.wipo.int/pct/en/texts/rules/r4.htm. Thus, under current PCT practice, all published patent filings under the PCT are encompassed under § 102(a)(2). See M.P.E.P. 1801 (8th Ed. Rev. 7) (“For international applications filed on or after January 1, 2004, the filing of an international application will automatically constitute the designation of all contracting countries to the PCT on that filing date.”).


68. Under pre-AIA § 102(g), once a patent interference was declared under pre-AIA § 135, the date that claimed subject matter contained in a U.S. patent filing would be deemed effectively filed could—contrary to Hilmer—be an earlier foreign patent filing date. Where the right of priority existed under § 119 for such earlier foreign patent filing, it could represent a “constructive reduction practice” for the purpose of § 102(g) and, thus, be used as § 102(g) “priority.”
Thus, the most informed understanding of the so-called *Hilmer* doctrine under the pre-AIA law was that, while it had a prior art impact limited to U.S. patent filings, that limitation was then effectively trumped—or expanded—to encompass foreign patent filing priorities, as needed to prevent identical patents of rival inventors from being validly issued. With pre-AIA § 102(g) repealed, it becomes essential to place in the statute a new *trumping* mechanism that provides that foreign patent filing priorities serve to prevent this form of patent duplication.69

Under the AIA, the sole provision that bars identical patents from issuing to rival inventors is new § 102(a)(2). Indeed, it does so just as pre-AIA § 102(g) did—by considering that a patent filing was effectively filed as of its foreign priority filing date. What this means, therefore, is that even if the *Hilmer* provision were added back into the patent statute—literally, word for word—that would not obviate the need for new § 102(a)(2) to accomplish the same result achieved by pre-AIA § 102(g).

Thus, even if pre-AIA § 102(e) were to be added to the AIA patent statute to reconstitute a *Hilmer* rule, it would remain necessary to retain new § 102(a)(2) as the new law’s surrogate for pre-AIA § 102(g). It is still imperative to recognize foreign patent filings for priority purposes—just as pre-AIA § 102(g) effectively accomplished. The *Hilmer* doctrine, therefore, was neither abandoned nor forsaken; it merely succumbed to its own irrelevance.

**Constructing Inventor- and Collaboration-Friendly Exceptions: § 102(b)**

While the definition of the scope and content of the prior art qualifying under § 102(a) is simple and straightforward, it was never intended or designed to embody the inventor- and collaboration-friendly features of U.S. patent law that have long distinguished the approach to patenting in the United States from that of many other countries. The codification—and indeed the enhancement—of these relatively unique aspects of pre-AIA patent law are to be found in new § 102(b).

The structure of new § 102(b) shadows that of new § 102(a). Both subsections contain two paragraphs. Paragraph (1) of subsection (b) provides exceptions from prior art arising under paragraph (1) of subsection (a). Similarly, paragraph (2) of subsection (b) provides corresponding exceptions relating to paragraph (2) of subsection (a).

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69. Any attempt to include a surrogate under the AIA for what pre-AIA § 102(g) accomplished would produce absurd consequences in virtually every situation where two rival foreign-based inventors make home-country patent filings one year before seeking their respective U.S. patents within 18 months of each other. Under such a scenario, any effort to impose a *Hilmer*-style rule on § 102(a)(2) would force the United States to grant each of these foreign inventors separate and entirely valid patents for the same invention. The later-filing inventor’s entitlement to a right or priority based on the foreign-filed patent application would negate the earlier-filing inventor’s patent filing as prior art if the term “effectively filed” were limited to the date “effectively filed” in the United States.”
The specific exceptions to prior art in each of the paragraphs (1) and (2) are found in separate subparagraphs. Paragraph (1) contains two subparagraphs and each of these subparagraphs has a counterpart in paragraph (2). However, paragraph (2), relating to earlier patent-filing prior art exceptions, has a third subparagraph that has no counterpart in paragraph (2). The table that follows summarizes these provisions:

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<tr>
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<tbody>
<tr>
<td>Subparagraph (A)</td>
<td>The inventor’s or a joint inventor’s own prior disclosures during the 1-year “grace period” before the effective filing date are excepted from prior art.</td>
<td>Same as for § 102(b)(1).</td>
<td></td>
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<tr>
<td>Subparagraph (B)</td>
<td>Identical subject matter that is disclosed subsequently to an inventor’s earlier public disclosure of the same subject matter earlier is excepted from prior art.</td>
<td>Same as for § 102(b)(1).</td>
<td></td>
</tr>
<tr>
<td>Subparagraph (C)</td>
<td>[No relevant exception.]</td>
<td>Subject matter under a joint research agreement or a common assignment as of the effective filing date is excepted.</td>
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This introduction to the framework of new § 102(b)’s exceptions can be understood in more complete detail by returning to—and completing—the discussion relating to certain vocabulary Congress chose for defining the prior art and the exceptions to prior art.

**Disclosed, Subject Matter Disclosed, Publicly Disclosed**

The “exceptions” to subject matter that can qualify as prior art under new § 102 reside in new subsection (b) and use terminology not heretofore found in pre-AIA § 102. The words “disclosure” and “disclosed” do not appear in pre-AIA § 102, much less when conjoined with the words “subject matter” or “publicly” to produce the new terms of art “subject matter disclosed” and “publicly disclosed.”

The patent statute, however, contains numerous references to “disclosures” and “disclosed” that are of relevance to the understanding of § 102(b). Foremost, new § 103, as noted above, references “subject matter not identically disclosed as set forth in section 102,” both as a means of requiring that the “novelty” requirement for patentability meet an identity standard and that § 102’s new definition of prior art consists of subject matter that has been disclosed.

The concept of “enabling disclosure” and “original disclosure” in the context of a patent filing are referenced in § 113. A further concept of “an invention disclosed in the manner provided by” § 112(a) appears in § 119 of the patent statute and, thus, is relevant to the determination of the effective filing date for a claimed invention. A parallel provision is to be found in § 120.
From the amendment to § 103 replacing the term “disclosed or described” with the single descriptor “disclosed,” Congress was self-evidently indicating that a *description* is merely one means for producing a *disclosure*. The word “describes” does appear in § 102(a) as a means of referencing a disclosure in the form of a writing, a document, or a like means of communicating intelligible information. Indeed, all of § 102(a)(2) prior art is characterized as being “described” in a patent filing (given that patent filings are in the form of documents), while—in a similar manner—§ 102(a)(1) prior art characterizes only printed publications as disclosures in which subject matter is described.

What emerge from this use of terminology are the following consistent understandings:

- The terms “disclosed” and “disclosure” provide the broadest possible terminology to convey that subject matter has been divulged and, thus, can qualify as prior art to a claimed invention under new § 102(a)(1).
- The terms “described” and “description” reference disclosures in the form of writings, documents, or like means for communicating subject matter in an intelligible manner. Providing a description is one form of making a disclosure.
- A disclosure may or may not be an “enabling disclosure” in the sense that it would permit a claim in a patent filing to be made with respect to the subject matter disclosed, such that a claim to such subject matter would meet the requirements for an adequate disclosure under § 112(a).
- A disclosure may or may not be a public disclosure. Some forms of disclosure make the subject matter disclosed publicly accessible and others do not. For example, patent filing disclosures are typically unavailable to the public unless and until the applications are published or a patent issues, which may be one or more years after the patent was sought.
- All prior art, thus, results from disclosures. § 102(a), titled “NOVELTY, PRIOR ART,” provides both the definition for prior art and the novelty condition required for patentability. § 103 twice references § 102’s definition of “prior art,” once to indicate that the novelty condition is satisfied unless the claimed invention is identically disclosed in the prior art and a second time to indicate that satisfaction of the non-obviousness requirement is assessed based on differences between the claimed invention and the prior art.
- § 102(a)(1) prior art is limited to disclosures that have become “available to the public,” or—in shorthand form—subject matter that has been publicly disclosed. In contrast, § 102(a)(2) prior art is in the form of patent filings that are largely unavailable to the public until months (typically 18 months) after the date on which they represent prior art, *i.e.*, the date on which they were effectively filed. The term publicly disclosed, thus, broadly references § 102(a)(1) prior art, and is distinguished from disclosures made through patent filings or other non-public divulgations.

With this bit of vocabulary, the A-B-Cs of exceptions to subject matter qualifying as prior art can now be fully explored.

**Subparagraph (A) Exceptions: The Inventor’s Own Work**

The two subparagraph (A) exceptions are drafted in slightly different ways from a slightly different perspective, but provide no different outcome in the situation where the work of
the inventor (or a joint inventor) is the subject matter of a disclosure. A side-by-side comparison is useful for understanding these subtle differences in the expression of the exceptions:

**Exception in § 102(b)(1):**

(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. . . .

**Exception in § 102(b)(2):**

(2) **Disclosures appearing in applications and patents [naming another inventor].**—A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if—

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

The following observations are relevant to the respective subparagraph (A) exceptions:

- Each § 102(b) “subparagraph” exception in paragraph (1) and in paragraph (2) applies only to the respective paragraph (1) or paragraph (2) prior art provision in § 102(a). Thus, for prior art under § 102(a)(1), nothing in § 102(b)(2) applies as an exception to the § 102(a)(1) prior art. The same is true for § 102(a)(2) prior art not being excepted under any of the provisions of § 102(b)(1).
- The § 102(b)(1) exception applies only to disclosures made one year or less before the effective filing date of a claimed invention, while the one-year period is inapplicable to the § 102(b)(2) exceptions. Thus, § 102(b)(1) exceptions provide a one-year “grace period.” For § 102(b)(2), no similar time limitation on its reach is either present or required. This paragraph merely addresses when a patent filing will constitute prior art as of when its subject matter contents were effectively filed.
- The opening clauses of both paragraph (1) and paragraph (2) of subsection (b) specifically employ the term “prior art” to describe the corresponding paragraphs of subsection (a), again reinforcing that § 102(a) provides the exhaustive definition of prior art. Similarly, these opening clauses align with and reinforce the understanding of the term “prior art” as used in § 103 to mean disclosures meeting the requirements set out in subsection (a) of § 102.
- Both subparagraph (A) provisions reach the identical result of disqualifying a disclosure of the inventor’s own work as prior art, using functionally identical language to indicate, that subject matter disclosed, if obtained directly or indirectly from the inventor or a joint inventor, is excepted from prior art. However, the actual structure of the two subparagraphs differs.
- Paragraph (1) is formally drafted in terms of the persons making the disclosure, but does so in two parts. The first part is a categorical exception for an inventor’s own disclosures. The second is an exception for any subject matter disclosed by others that represents the inventor’s own work. Paragraph (2) is drafted solely in terms of
the origin of the subject matter disclosed, *i.e.*, whether it was the inventor's own work. It does not require the first part found in paragraph (1)—disclosures made by the inventor itself. The self-evident reason for this difference is that § 102(a)(1) applies broadly to public disclosures by *any person* (thus, requiring a specific exclusion of the inventor's own disclosures), while § 102(a)(2) is specifically limited to patent filings naming another inventor (thus, making the sole "exception" issue the origin of the subject matter disclosed rather than the person making the disclosure). Again, in practical terms, this is a formal distinction with no difference, since both paragraphs ultimately turn on the *source* of subject matter disclosed for any disclosure other than that of the inventor.

- Therefore, although containing wording differences, the two subparagraph (A) exceptions contain no substantive differences from one another in the sense that a disclosure reflecting the work of the inventor (or a joint inventor),\(^70\) rather than an independent creator of the subject matter disclosed, made during the one-year "grace period" prior to the effective filing date of the inventor’s claimed invention, is excepted from prior art.

Given this understanding, the subparagraph (A) provisions provide no more and no less than a new codification of the pre-AIA grace period. Wherever the inventor’s (or a joint inventor’s) work is disclosed, either by the inventor or joint inventors themselves or by someone who derived the same from them, the exception applies. Under subparagraph (A), therefore, nothing changes from existing law, particularly as understood by the Office and as applied by the courts.

The *Facius* appeal under pre-AIA law, addressed the issue of where an earlier patent filing had issued as a U.S patent and constituted prior art under pre-AIA § 102(e) to an inventor’s subsequent patent filing on a claimed invention, but subject matter disclosed in the earlier patent that was derived from the work of the inventor relevant to the claimed invention (*i.e.*, in contrast to the inventor’s knowledge of other prior art) was excepted from the prior art:

The real question is whether, in addition to establishing derivation of the relevant disclosure from himself, [the named inventor of the claimed invention] has also clearly established the fact that he invented the relevant subject matter disclosed in the [prior art] patent. If he merely brought the prior art to the attention of the patentee, then the disclosure in the [prior art] patent is available against [the claimed invention] even though [the named inventor] was, in a fashion, responsible for that particular disclosure (*i.e.*, it was his “contribution” to the disclosure since he “communicated” the subject matter to the patentee). If on the other hand, [the named inventor actually] invented the subject matter upon the relevant disclosure in the [prior art] patent was based, then the [prior art] patent may not be used as a reference against him notwithstanding the [prior art] patent’s silence as to the patentee’s source of that subject matter.\(^71\)

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70. To be most precise, the “work” of the inventor or the work of inventing or creating is a reference to the intellectual work—the intellectual contribution or origin of the subject matter in question. Thus, “obtaining directly or indirectly from the inventor” is needs to be read that the inventor must be the originator of the subject matter. This is further apparent from the quotation to follow from the *Facius* appeal.

71. *In re Facius*, 408 F.2d 1396, 1407 (CCPA 1969).
While the *Facius* appeal dealt with a patent filing, relevant to paragraph (2) prior art, the doctrine has and will continue to apply to public-disclosure prior art under paragraph (1). As noted in the Manual of Patent Examining Procedure, “[w]hile derivation will bar the issuance of a patent to the deriver, a disclosure by the deriver . . . will not bar the issuance of a patent to the party from which the subject matter was derived.”

Subparagraph (B) Exceptions: Publicly Disclosed Subject Matter

A second pair of exceptions to prior art deal with a special situation in which an inventor of a claimed invention has made a pre-filing public disclosure of the invention that is protected by the subparagraph (A) exceptions, i.e., is within one year or less of the effective filing date for the claimed invention, but a patent would nonetheless be barred on the subject matter otherwise protected under the “grace period” because independent work of an unrelated inventor has been the subject of § 102(a)(1) prior public disclosure or a § 102(a)(2) earlier patent filing.

These new subparagraph (B) exceptions were intended to provide some, but not all, the protections that the inventor of the claimed invention would have realized through making a patent-filing disclosure on the subject matter earlier disclosed, rather than the “grace period” public disclosure. Under subparagraph (B), the commonly disclosed subject matter (i.e., the same subject matter appearing in both the “grace period” disclosure and the intervening disclosure by another that would otherwise represent prior art to the claimed invention) is excepted from prior art.

Again, a side-by-side comparison of the two subparagraph (B) exceptions is instructive as to the manner in which these provisions will operate in practice:

**Exception in § 102(b)(1):**

(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.

**Exception in § 102(b)(2):**

(2) **Disclosures appearing in applications and patents [naming another inventor].**—

A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if— . . .

(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 . . . .

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72. See M.P.E.P. § 2137 (8th ed., Rev. 8) (quoting In re Costello, 717 F.2d 1346, 1349 (Fed. Cir. 1983) in explaining that “‘[a] prior art reference that is not a statutory bar may be overcome by two generally recognized methods’: an affidavit under 37 CFR 1.131, or an affidavit under 37 CFR 1.132 ‘showing that the relevant disclosure is a description of the applicant’s own work.’”).
The following observations are relevant to the respective subparagraph (B) exceptions:

- The two subparagraph (B) exceptions themselves are substantively identical; they differ only in reference to timing. The paragraph (1) exception is triggered based upon a public disclosure of the inventor’s own work made before the date on which a subsequent public disclosure under § 102(a)(1) would otherwise constitute prior art (i.e., because the subsequent disclosure was nonetheless prior to the effective filing date of the inventor’s claimed invention) and the paragraph (2) exception relates to such public disclosures of the inventor made before a patent-filing disclosure under § 102(a)(2) would otherwise constitute prior art.

- Under the subparagraph (B) exceptions, the subject matter disclosed that is to be excluded from prior art arise from what are, in effect, intervening disclosures, namely disclosures that appear before the effective filing date of the inventor’s claimed invention but after the inventor has made a public disclosure of that same subject matter. The intervening disclosure of the person independent of the inventor can be either in the form of a public disclosure otherwise constituting prior art under § 102(a)(1) or a patent-filing disclosure otherwise constituting prior art under § 102(a)(2).

- These exceptions are both drafted to reference only certain subject matter that is to be excepted from prior art and, thus, do not necessarily remove as prior art the entire content constituting a single, discrete disclosure, i.e., they do not except any and all subject matter divulged in the transaction constituting the discrete disclosure. Thus, in the case of a patent-filing disclosure, some of the subject matter in the patent filing may retain its status as prior art while other subject matter in the patent filing may qualify for the § 102(b)(2)(B) exception.

- The scope and content of the subject matter excepted from prior art is limited to the subject matter publicly disclosed by the inventor prior to the relevant “prior art” date of the disclosure whose contents are being excepted as prior art either in whole or in part. Importantly, the limitation on the exception to the same subject matter that was earlier publicly disclosed by the inventor prevents the exception from operating with respect to other subject matter that might also appear in the intervening disclosure, including subject matter that might render obvious a claim to the subject matter that was excepted from the prior art under subparagraph (B).

This last point is of critical importance. The statutory provisions were not drafted to permit an inventor to wiggle out of prior art and recover patentability for an invention once dedicated to the public through publication of the work of an independent, unrelated inventor, even if that work amounts to an obvious variation of what the first-publishing inventor made public. These provisions can be best understood as having been crafted to follow the holding of the Court of Customs and Patent Appeals in Stempel. In Stempel, the effective filing date of the claimed invention was subsequent to a public disclosure that rendered the claimed invention obvious. Stempel was either unwilling or unable to demonstrate a date of invention that preceded the public disclosure date and, thus, did not

qualify for the “prior invention” exception from prior art available (at the time) under pre-AIA § 102(g).

The *Stempel* court nonetheless construed the pre-AIA statute as encompassing a further prior-art exception, namely that so long as the inventor was able to show a prior possession of whatever subject matter had been disclosed in the prior-art disclosure, this prior public disclosure could nonetheless be disregarded as prior art. The subparagraph (B) exception under the AIA works in exactly the same manner as the *Stempel* exception operated under pre-AIA law, except that the AIA substitutes a requirement for a prior public disclosure of the *same subject matter* found in the prior-art disclosure for *Stempel’s* showing of *prior possession of such subject matter* as was previously disclosed.74

The AIA imposes a general requirement for patentability that an inventor be the first inventor to file for a patent on a claimed invention, just as pre-AIA law imposed a general requirement that an inventor be the first to invent a claimed invention to be entitled to patent such an invention. The AIA’s subparagraph (B) exceptions, therefore, can be thought of as being a slight derogation of the general requirement in the special situation where an inventor can demonstrate *prior possession* (precisely as the *Stempel* court required) as manifest through a prior public disclosure of so much subject matter as otherwise would have constituted prior art.

The *Stempel* holding was subsequently clarified in *Tanczyn*75 to require that the prior possession be limited to subject matter within the scope of the claimed invention, that is, the portion of the claimed subject matter that was found in the prior art reference:

We never intended by the language used in *Stempel* to authorize the overcoming of references by affidavits showing that the applicant had invented, prior to the reference date, a part, some parts, or even a combination of parts, used to create an embodiment of his claimed invention, where the part or parts are not within the scope of the claims being sought. . . . It is not sufficient . . . that an invention wholly outside of that being claimed was made prior to the reference date. Such fact is irrelevant.76

The *Tanczyn* holding lies outside of the codification under the AIA and, thus, should not be followed. The sole statutory test of whether a prior art reference is excepted is the core *Stempel* holding of prior possession (via a prior public disclosure) of so much of the subject matter as is set out in the prior public disclosure. Nothing in subparagraph (b) incorporates a limitation that the subject matter excepted from the prior art must additionally be claimed subject matter.

Another variation of *Stempel* arises where the inventor is able to demonstrate prior possession both of a broad invention and an operable embodiment, but the intervening

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74. “We are convinced that under the law all the applicant can be required to show is priority with respect to so much of the claimed invention as the reference happens to show. When he has done that he has disposed of the reference. . . . In the case of a reference, it is fundamental that it is valid only for what it discloses and if the applicant establishes priority with respect to that disclosure, and there is no statutory bar, it is of no effect at all. . . . [T]he rights given to inventors by statute . . . excludes a construction permitting the further use of a reference as a ground of rejection after all pertinent subject matter in it has been antedated to the satisfaction of the Patent Office.” *In re Stempel*, 241 F.2d 755, 759–60 (CCPA 1957).
75. *In re Tanczyn*, 347 F.2d 830 (CCPA 1965).
76. *Id.* at 832–33.
prior-art disclosure is to a separate and distinct embodiment. These facts arose in the
Clarke appeal in which the inventor was able to demonstrate possession of a genus of
chemical compounds and a single species falling within the genus. The intervening disclose-
was to a second species falling within the genus.

The Clarke facts, thus, represent a contrary situation, where the subject matter in the
intervening disclosure (a single embodiment) is not the subject matter of the inventor’s
prior possession (as evidenced via a prior public disclosure) and, therefore, is not subject
matter the subparagraph (B) exceptions will remove as prior art. Thus, the prior-art em-
bodyment is subject matter that remains prior art and will both anticipate any claim to the
inventor’s genus and may render obvious any claim to the species that the inventor can
demonstrate was in its possession prior to the prior-art date of the related species.

The operable statutory language in both subparagraph (B) provisions of § 102(b) is
clear. It is a “subject matter” test that does not admit of adding or subtracting insubstantial
changes or merely obvious or trivial variations. When “subject matter” is used in title 35,
both before and after the AIA, it is used to mean the subject matter itself, not subject
matter more or less. Under the pre-AIA § 103(a), non-obviousness was assessed by look-
ing to the differences between the “subject matter sought to be patented” and the prior art,
requiring the term “subject matter” to exclude “obvious variations” for obvious reasons.
Similarly, under the AIA, the term “claimed invention” in § 100(h) is now defined as the
“subject matter defined by a claim,” which again emphasizes that “subject matter” can
only mean its literal content. Since § 103 now requires a look at the differences between
the “claimed invention” and the “prior art,” the overall statutory scheme reinforces that the
use of the same term, “subject matter,” in § 102(b) must be taken free from wiggle room.

Not only is the statutory language clear, but the intent of Congress in crafting the
subparagraph (B) exceptions is equally so. Congress might have, but did not, equate a public
disclosure, e.g., the publication in the United States of a description of an invention
in a printed publication in the United States would have constituted at
least a provisional patent filing, subject to any formalities that might be later required.

Had Congress taken that route, then the public disclosure date would have had the status
of an effective filing date of a claimed invention in a nonprovisional patent filing, entitled to
priority to the regular national filing accomplished via publication in the United States.

77. In re Clarke, 356 F.2d 987 (CCPA 1966).
78. Indeed, had Congress so acted—or should Congress so act in the future—it would
effectively create a one-year “grace period” under the laws of countries outside the United
States that are members of the Paris Convention. Under Article 4(2) of the Convention, “Any
filing that is equivalent to a regular national filing under the domestic legislation of any
country of the Union or under bilateral or multilateral treaties concluded between countries of
the Union shall be recognized as giving rise to the right of priority.” See Paris Convention for
the Protection of Industrial Property of March 20, 1883, as revised at Brussels on December 14,
1900, at Washington on June 2, 1911, at The Hague on November 6, 1925, at London on June
2, 1934, at Lisbon on October 31, 1958, and at Stockholm on July 14, 1967, and as amended
on September 28, 1979. As long as the United States determines that a disclosure represents a
patent filing in the United States that suffices to create an effective filing date for a claimed
invention, that determination is not subject to challenge as creating the basis for a right of
priority outside the United States. Under Article 4(3) of the Convention, “a regular national
filing is . . . any filing that is adequate to establish the date on which the application was filed
in the country concerned, whatever may be the subsequent fate of the application.”
However, Congress, by electing not to treat a public disclosure as the equivalent of a patent filing able to generate an effective filing date, self-evidently would not have wanted that same public disclosure to provide an inventor more advantages in securing a patent for an invention than had a patent filing on the invention been pursued.

If, in lieu of the subparagraph (B) exception, Congress had deemed a public disclosure as constituting a regular national patent filing, then a patent filing limited to a single embodiment X, by Inventor A, followed by a patent filing representing the independent work of another Inventor B disclosing both embodiment X and a related embodiment Y, would not have permitted a later patent filing by Inventor A directed broadly to both embodiments X and Y. Under the patent-filing scenario alternative to a subparagraph (B) exception, the effective filing date of the broad claim would leave embodiment Y as prior art, sufficient to anticipate the generic claims broadly directed to embodiments X and Y. The most that Inventor A could salvage under a patent-filing scenario would be a claim to embodiment X.

If a subparagraph (B) exception were construed to eliminate as intervening prior art both subject matter disclosed (as the statutory text provides) and variants of subject matter disclosed (such as insubstantial or obvious deviations from the subject matter disclosed), then the intervening patent filing on embodiments X and Y would no longer represent prior art, permitting Inventor A to secure a broad patent on embodiments X and Y. Such a construction of subparagraph (b) would mean that an inventor would be significantly advantaged by publishing on an invention instead of seeking a patent promptly on the same subject matter.

Thus, subparagraph (B) cannot credibly be construed to give an inventor advantages that could not be realized by seeking a patent on subject matter that is publicly disclosed, particularly when Congress clearly could have—but elected not to—afford any form of public disclosure of an invention the status of a regular national filing on the subject matter disclosed. Thus, notwithstanding some commentary suggesting that the subparagraph (B) exceptions should be regarded in subtle, nuanced, or otherwise complicated ways, Congress used simple words to convey a simple exception from prior art—the subject matter of an inventor’s prior public disclosure that appears in an intervening disclosure of another is to be disregarded as prior art, nothing more and nothing less.

Subparagraph (C) Exception: Co-workers and Other Collaborators

The last prior art exception in § 102(b) is the paragraph (2) exception found in subparagraph (C). This is the exception that continues—and improves—the provisions of the AIPA of 1999 and the CREATE Act of 2004 that are found in pre-AIA § 103(c)(1) for the AIPA provisions and § 103(c)(2) and (3) for the CREATE Act provisions.

The AIPA and the CREATE Act both provided exceptions from subject matter that would otherwise have been available as prior art for obviousness determinations. These exceptions in pre-AIA law had no impact on prior art used to assess the novelty of a claimed invention under § 102.

The AIPA provisions excepted certain subject matter from an earlier patent filing that otherwise would be prior art to a claimed invention if the subject matter in an earlier patent filing and the claimed invention were commonly owned at the time the claimed invention was made. The CREATE Act extended what effectively was the AIPA’s co-worker exception from prior art to encompass a wider sphere of collaborators. Provided a
qualifying joint research agreement were in place, the would-have-been prior art subject matter and the claimed invention are given the same treatment as though there had been common ownership under the AIPA.

The provisions of the AIA continuing the CREATE Act are found in new §§ 102(c)(2) and (3). The AIPA provisions are contained in new § 102(c)(1).

Once again, a side-by-side comparison indicates how the pre-AIA provision on co-worker (common assignment) exceptions compares with the new exception in new § 102(b)(2)(C):

**Exception in AIA § 102(b)(2)(C):**

(2) Disclosures appearing in applications and patents.—A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if— . . .

(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.

**Exception in pre-AIA § 103(c):**

(c)(1) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section [103] where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

The side-by-side comparison of exception, found in § 102(c), corresponding to the CREATE Act provision in pre-AIA § 103(c)(2) provisions appear as follows:

**Exception in AIA § 102(c):**

(c) Common Ownership under Joint Research Agreements.—

Subject matter disclosed and a claimed invention shall be deemed to have been owned by the same person or subject to an obligation of assignment to the same person in applying the provisions of subsection (b)(2)(C) if—

(1) the subject matter disclosed was developed and the claimed invention was made by, or on behalf of, 1 or more parties to a joint research agreement that was in effect on or before the effective filing date of the claimed invention;

(2) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and

(3) the application for patent for the claimed invention discloses or is amended to disclose the names of the parties to the joint research agreement.

**Exception in pre-AIA § 103(c):**

(c)(2) For purposes of this subsection, subject matter developed by another person and a claimed invention shall be deemed to have been owned by the same person or subject to an obligation of assignment to the same person if—

(A) the claimed invention was made by or on behalf of parties to a joint research agreement that was in effect on or before the date the claimed invention was made;

(B) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and

(C) the application for patent for the claimed invention discloses or is amended to disclose the names of the parties to the joint research agreement.
Finally, a side-by-side comparison of the respective definitions of “joint research agreements” in new § 100(h) and the pre-AIA § 103(c)(3) indicates no change in substance:

**Definition in AIA § 100(h):**

(h) The term ‘joint research agreement’ means a written contract, grant, or cooperative agreement entered into by 2 or more persons or entities for the performance of experimental, developmental, or research work in the field of the claimed invention.

**Definition in pre-AIA § 103(c)(3):**

(3) For purposes of paragraph (2), the term “joint research agreement” means a written contract, grant, or cooperative agreement entered into by two or more persons or entities for the performance of experimental, developmental, or research work in the field of the claimed invention.

The following observations are of relevance to the subparagraph (C) exceptions, as compared to pre-AIA law:

- The foremost change in the law is that the provisions of these inventor- and collaboration-friendly features of the patent law now apply to both novelty and non-obviousness determinations. Both prior art and all exceptions to prior art apply in equal measure to both novelty and non-obviousness. Under the pre-AIA statute, they were to be found in § 103; they now appear in § 102.
- A near-equally profound change is the timing of the exceptions. Under pre-AIA law, if the common assignment (or joint research agreement) was not in place as of the invention date of the claimed invention, the remedial provisions could not be invoked. Under the AIA, the existence of a common assignment obligation or joint research agreement need only be in place as of the effective filing date of the claimed invention.
- The remaining changes that result in pre-AIA § 103(c)(1) becoming new § 102(b)(2)(C) are largely editorial in nature, reflecting the fact that the pre-AIA statute was directed to private knowledge of the inventor (pre-AIA § 102(f) prior art) and prior-invention prior art (pre-AIA § 102(g) prior art), as well as prior art arising from earlier patent filings naming another inventor.
- Under pre-AIA § 102(c)(2)(A)’s provisions implementing the CREATE Act, there was no explicit requirement that the subject matter to be excepted from prior art need to have been developed by a party to the joint research agreement. Given that this requirement may have been implicit, its explicit rendition in new § 102(c)(1) likely does not represent a contraction of the ability to make use of the exception.
- Like the common assignment obligation, the joint research agreement need only be in effect as of the effective filing date of the claimed invention. This, again, affords a profound enhancement of the potential usefulness of this exception.
- The precise wording of pre-AIA § 103(c)(2)(B) was left unchanged in new § 102(c)(2), both of which require that the claimed invention was “made as a result of activities undertaken within the scope of the joint research agreement.” If this provision were read most narrowly, it might constitute a requirement that the joint research agreement already be in place before the date the claimed invention was made. However, if these provisions were treated as remedial in character...
and broadly construed to accomplish their remedial effect, then any joint research agreement entered into on or before the effective filing date of the claimed invention in question that laid out the scope of the joint research would not disqualify prior art subject matter that had been developed before the agreement’s date of execution so long as the activities undertaken to develop the subject matter fell within the statement of scope.

On the final point above, unless § 102(c)(2)(B) is given a broad, remedial construction, it would create an anomaly in the new statute under which common assignment obligations could be put in place as late as the effective filing date of the claimed invention, notwithstanding that both the subject matter excepted from the prior art and the claimed invention were made long before the common assignment obligation was put into effect, while joint research agreements might require an execution date before the development of the prior art subject matter. This provides a compelling argument that the language in § 102(c)(2) carried over from pre-AIA § 103(c)(2)(B)—whatever its pre-AIA import—now covers the circumstance where a joint research agreement of an appropriate scope of activities, executed as late as the effective filing date of a claimed invention, ought to invoke the subparagraph (C) prior art exception.

In sum, the exceptions from prior art in the subparagraphs (A), (B) and (C) collectively implement a new patent law that retains and then enhances the inventor- and collaboration-friendly features of pre-AIA U.S. patent law. The subparagraph (A) exceptions preserve in its entirety the one-year “grace period” under which the inventor’s (or a joint inventor’s) own work is disqualified as prior art. The subparagraph (B) exceptions provide a new prior art exception that operates when the inventor has made a prior public disclosure before filing for a patent, and an independent disclosure of the same subject matter intervenes. Whether such an intervening disclosure is another public disclosure or a patent-filing disclosure, it is excepted as prior art. Finally, the subparagraph (C) exceptions first preserve and then extend the protection that co-workers and collaborators enjoyed under pre-AIA patent law by requiring that subject matter disclosed in earlier patent filings naming other inventors cannot impair the patentability (novelty or non-obviousness) of an inventor’s claimed invention, provided a common assignment obligation (or joint research agreement) is in place as of the effective filing date of the claimed invention.

Invalidity, Unenforceability and the “Best Mode” Requirement

The requirement in § 112(a), i.e., under the pre-AIA statute, § 112, first paragraph, that a patent filing must include a “best mode” disclosure within the specification of the patent remains in the law, without substantive change. Formerly this requirement read that the patent specification “shall set forth the best mode contemplated by the inventor of carrying out his invention.” The AIA slightly redrafted this requirement to now read that the patent specification “shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.” The intent of the recodification is to continue unchanged this pre-AIA requirement dealing with the specification of a U.S. patent filing.

79. See Pub. L. No. 112-29, 125 Stat. 296, § 4(c)(2). Congress, in the gender-neutral revision of § 112(a) did not indicate that the requirement was to be imposed separately on each joint inventor, but instead allowed the definite article “the” to reference both the word “inventor” and “joint inventor,” potentially suggesting that a patent might name only a single joint inventor.
The “best mode” disclosure requirement, since it remains in the patent law, requires patent applicants to continue all the current practices and procedures that they have put in place for assuring that U.S. patent filings include this required element of disclosure. Put another way, so long as the law formally imposes a requirement on patent applicants, it is not up to the applicant to decide which such requirements of law must be observed and which may be ignored.

Moreover, as a matter of good patent drafting practices, the disclosure of the “best mode” for carrying out a claimed invention ranges from the highly desirable to the effectively unavoidable for very practical reasons. An undisclosed mode cannot be specifically claimed. Inventors typically benefit most from patents containing a specific claim to the most important mode for carrying out an invention. Not infrequently, it may prove to be the only mode that may survive the tests of novelty and non-obviousness. In many situations, to assure a claimed invention is fully enabled, it becomes essential that the best mode of carrying out the invention be laid out in order to bolster that enablement. Finally, in patent infringement litigation, asserting narrow claims that have been infringed is preferable to asserting broader claims for which validity may be more difficult to sustain—again reinforcing the desirability of having a claim tailored to the “best mode,” which is only possible if that mode had been described sufficiently to permit it to be claimed.

While it was not within the realm of the politically possible for Congress to simply repeal the “best mode” requirement, any reading of the AIA confirms that Congress was fully aware of the absurdity otherwise of continuing any vestige of this requirement in the new law. It reached this conclusion for good reasons.

The National Research Council (NRC) of the National Academies of Science had urged abolition of the “best mode” requirement.80 Every major IP bar and trade organization supported outright repeal of the requirement.81 Patent reform bills dating back to the 109th Congress contained provisions to abolish the requirement outright.82 Nonetheless, for reasons that may not be subject to any rational explanation, Congress elected to keep the requirement, at least nominally, but then render the requirement meaningless in any proceeding in which the issue of compliance with the “best mode” requirement might arise.

Thus, while the “best mode” requirement must be observed—for both compliance reasons and practical reasons—the AIA renders it otherwise a dead letter. Congressional savaging of the “best mode” requirement took the following forms.


81. Illustrative of the view of the patent bar is the position of the ABA IPL Section. “A Section White Paper: Agenda for 21st Century Patent Reform (May 1, 2007), at p. 2, http://www.americanbar.org/content/dam/aba/migrated/intelprop/home/PatentReformWP.authcheckdam.pdf (last visited Nov. 1, 2011) (“Repeal the ‘best mode’ requirement, relying instead on the requirements for a complete written description and sufficient enabling details to permit the full scope of the claimed invention to be readily carried out. This represents a part of the aforementioned ‘best practices’ on which a domestic consensus was developed in 2001 among a number of U.S.-based NGOs and which the ABA IPL Section has adopted as policy in the context of a first-inventor-to-file system.”).

82. See H.R. 2795 (109th Cong.), June 8, 2005 at Section 4(d)(1)(B).
First, the express portions of the patent statute that once required a “best mode” disclosure in order to secure priority or benefit from an earlier patent filing have been repealed. In § 119(e)(1) and § 120 of the patent statute, the respective provisions relating to priority from an earlier U.S. provisional patent filing and from an earlier-filed U.S. nonprovisional patent filing have both been amended. Before the amendment, questions of priority-benefit of the earlier filing date of a provisional or nonprovisional patent filing required full compliance with the “written description,” “enablement,” and “best mode” requirements now found in § 112(a). Congress acted in the AIA by striking this reference to “the first paragraph of section 112 of this title” and inserting in its place “section 112(a) (other than the requirement to disclose the best mode).”83 Thus, priority or benefit from an earlier U.S. patent filing no longer will require that the earlier filing contain a “best mode” disclosure.

Second, this change will similarly impact the right to obtain priority from earlier foreign patent filings, for which the issue of priority arises under § 119(a). Congress was aware that § 119(a) has never contained an explicit requirement for a § 112-type disclosure in order for an inventor to be entitled to priority, thus leaving Congress nothing to repeal or revise in order to assure that no “best mode” requirement would continue.

While Congress did not impose a “best mode” condition for priority in § 119(a), the courts have done so, but on the sole ground that the reading-in was being done for “symmetry” purposes—to assure that all § 119 and § 120 priority/benefit issues were to be determined on a level playing field. Thus, by changing the rules for entitlement to benefit of an earlier patent filing in the United States (i.e., the § 119(f) and § 120 amendments), Congress has sub silento accomplished the same result for § 119(a) priority issues.

The leading precedent in the Federal Circuit that clarifies how the new law will operate can be found in the Gostelli appeal.

Section 119 provides that a foreign application “shall have the same effect” as if it had been filed in the United States. 35 U.S.C. § 119. Accordingly, if the effective filing date of what is claimed in a United States application is at issue, to preserve symmetry of treatment between sections 120 and 119, the foreign priority application must be examined to ascertain if it supports, within the meaning of section 112, ¶1, what is claimed in the United States application. [citations omitted.] . . . We conclude, therefore, that [appealed] claims . . . are entitled to the benefit of their foreign priority date under section 119 only if the foreign priority application properly supports them as required by section 112, ¶1. An application relying on the benefit of an earlier filing date in the United States would receive the same treatment under 35 U.S.C. § 120.84

While symmetry, together with the absence of any explicit requirement, presents a compelling explanation for Congress not to have amended § 119(a) in the course of modifying § 119(f) and § 120, the congressional intent is even more convincingly manifest in the manner in which § 282(3) of the patent statute was modified. This leads to the third prong of Congressional action to eviscerate the “best mode” requirement.

The pre-AIA version of § 283(3) provided in relevant part that “[i]nvalidity of the patent or any claim in suit” could be pled on the ground of “failure to comply with any

requirement of sections 112 or 251.” The AIA version continues to reference “any requirement of section 112,” but then goes on to provide “that the failure to disclose the best mode shall not be a basis on which any claim of a patent may be canceled or held invalid or otherwise unenforceable.”

The bars to patent invalidity, patent unenforceability, and patent cancelation mean that § 15 of AIA was crafted to bar consideration of the “best mode” issue in a waterfront of forums. Not only can it not be raised in any validity proceeding, but it cannot be raised when a court is considering the enforceability of the patent, e.g., where a pleading is made that the patent is unenforceable on the ground of fraud or other inequitable conduct. Similarly, in proceedings where the Office might cancel claims of an issued patent, a best-mode deficiency cannot be a ground considered by the Office.

Fourth, these amendments to § 119, § 120 and § 282(3) “shall take effect upon the date of the enactment of this Act and shall apply to proceedings commenced on or after that date.” There is no limiting character to this effective-date language. The amendments have immediate effect. Their applicability to proceedings, including those in which priority or benefit is relevant, begins for those commenced on or after September 16, 2011—the date of AIA enactment.

Thus, for both examination proceedings before a patent examiner (including priority and benefit determinations under § 119 and § 120) and ex parte patent appeal proceedings before the Patent Trial and Appeal Board, as well as post-grant proceedings otherwise before the Office, which of course includes new proceedings such as supplemental examination proceedings, there is virtually no conceivable manner in which a “best mode” issue might arise.

Fifth, since the issue of entitlement to priority or benefit of an earlier-filed application for patent does not require that a “best mode” disclosure be found in the earlier-filed application for patent, there should be no basis during ex parte patent examination to reject a claimed invention on the ground that, as of the effective filing date for the claimed invention, no best mode disclosure was present. This consequence arises from the Federal Circuit’s Transco decision, providing that “the date for evaluating a best mode disclosure in a continuing application is the date of the earlier application with respect to common subject matter.”

In other words, under Transco, there is no need to provide any additional disclosure relating to the “best mode” after the effective filing date of a claimed invention and, under the AIA’s new provisions, the Office is prevented from inquiring as to whether the “best mode” disclosure was made on or before the effective filing date.

As exhaustively treated above, the term “effective filing date” recognizes that, when claims for priority or benefit are absent, the effective filing date for a claimed invention is the actual filing date of the application or patent in which the claims appear. Thus, the sole remaining circumstance in which the issue of an adequate “best mode” disclosure can arise in patent examination is if there is no claim for priority or benefit made.

89. 35 U.S.C. § 100(i)(1).
Situations in which a patent might issue on an application for patent in which no claim for priority or benefit has been made are few. And, of course, the situations in which a patent examiner ever makes a “best mode” rejection, no matter how deficient the patent filing appears to be are few—especially given the traditional non-receptivity of the courts to speculation by patent examiners that a “best mode” was identified by the inventor, but then concealed.

In sum, while electing not to repeal the requirement to disclose the “best mode” overtly, Congress acted affirmatively to make every act of non-disclosure non-consequential, save for the situation where an application for patent containing no claim for priority or benefit is in an ex parte examination proceeding and, thus, is neither subject to the Transco holding nor the statutory revisions to § 119 and § 120. Non-disclosure cannot be raised in any litigation involving the patent. It cannot be raised in any proceeding in which the Office might otherwise have the authority to cancel a claim of the patent. It cannot be raised otherwise in proceedings in the Office involving an application for patent or an issued patent itself. It cannot be relevant to the right of priority or benefit of an earlier-filed application and, once such priority or benefit has been claimed in a subsequent patent filing, it cannot be contested under Transco that the subsequent filing lacked a disclosed “best mode.”

What remains of the “best mode” requirement would (theoretically at least) permit a patent examiner in an ex parte patent examination to accept an admission from the inventor or a joint inventor that the inventor contemplated a particular mode of carrying out the invention as better than others and concealed that mode. Given that this is all that remains of the requirement, it perhaps suggests that Congress might best serve the innovation community by simply eliminating the requirement, especially in light of the array of thoughtful commentary noting that such a contemplation-based, utterly subjective assessment should play no role in a 21st century patent system.

INVENTOR-RELATED PROVISIONS IN THE FIRST-INVENTOR-TO-FILE WORLD

The primacy of the inventor in the patent system is unchanged, in any respect, under the AIA. That said, the process of patenting, as it relates to the inventor’s role, has been made the subject of multiple remedial measures that should enhance the transparency, objectiveness, predictability, and simplicity of the operation of the patent system. Most fundamentally the AIA preserved without amendment the most important provision in the patent statute:

90. Patent applicants could, of course, pay a tiny price to avoid even such rare circumstances by simply filing a provisional application for patent even a day before filing a non-provisional application that is essentially the same as the provisional application. Unless the patent applicant has a sense of urgency in having the application proceed through patent examination, a day-before provisional filing patent strategy is less desirable than delaying the nonprovisional patent filing until the end (or near the end) of the one-year priority period permitted for provisional applications for patent, thus deferring the beginning of the 20-year patent term for the full year and permitting the year-later nonprovisional patent filing to be tuned to reflect intervening development of any claimed invention.

91. An example of the futility of examining for “best mode” compliance by inference that a known, better mode has been concealed appears in In re Bundy, 642 F.2d 430 (CCPA 1981).
Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.92

This provision implements the requirement that patent rights are the inventor’s rights and the identification of the inventor of a claimed invention, absent an assignment of rights, determines the ownership of the patent to the invention.93 As noted earlier, the term “inventor” is now defined as the inventive entity—without changing the underlying substantive law on which inventorship determinations, sole or joint, are made.94 In other words, as the new statute provides, there can be no “joint inventors” absent a “joint invention” under the extant jurisprudence of the Federal Circuit.

Assignee as Patent Applicant: The Real Party in Interest Can Seek the Patent

The 1952 Patent Act was drafted on the basis of the synonymy between the terms “inventor” and “applicant” for patent. As the 1952 law implemented § 100, it generally permitted only an inventor to apply for a patent. As an example of the pre-AIA “inventor=applicant” drafting, in pre-AIA § 102(a), the right to a patent was determined based upon public disclosures “before the invention thereof by the applicant for patent.” In pre-AIA § 111(a)(2)(C), a proper (nonprovisional) patent filing required “an oath by the applicant,” and pre-AIA § 115 required the “applicant” to state that “he believes himself to be the original and first inventor” of the subject matter for which a patent was being sought.

The inventor/applicant synonymy is now gone. All such references to “applicant” that were specific to “inventor” were stricken under the AIA. This paved the way for the AIA amendment to § 118 affording an assignee of the inventor the plenary and unequivocal right to seek a patent for an invention that it owns through an assignment or mere obligation to assign.

The subtle metamorphosis in § 118 can be seen through a side-by-side comparison:

94. “What is clear is that the statutory word ‘jointly’ is not mere surplusage. For persons to be joint inventors under Section 116, there must be some element of joint behavior, such as collaboration or working under common direction, one inventor seeing a relevant report and building upon it or hearing another’s suggestion at a meeting. . . . Individuals cannot be joint inventors if they are completely ignorant of what each other has done until years after their individual independent efforts. They cannot be totally independent of each other and be joint inventors.” Kimberly-Clark Corp. v. Procter & Gamble Distrib. Co., 973 F.2d 911, 917 (Fed. Cir. 1992).
Pre-AIA § 118 Filing by other than inventor

Whenever an inventor refuses to execute an application for patent, or cannot be found or reached after diligent effort, a person to whom the inventor has assigned or agreed in writing to assign the invention or who otherwise shows sufficient proprietary interest in the matter justifying such action, may make application for patent on behalf of and as agent for the inventor on proof of the pertinent facts and a showing that such action is necessary to preserve the rights of the parties or to prevent irreparable damage; and the Director may grant a patent to such inventor upon such notice to him as the Director deems sufficient, and on compliance with such regulations as he prescribes.

As is apparent from the annotated comparison of the new law to the pre-AIA law, § 118 no longer limits the non-inventor patent applicant to the circumstance where an inventor refuses to “execute” an application for patent or cannot be found. Instead, the assignee is afforded a plenary right to make an application for patent in its own right.

Certain non-assignees may also make use of new § 118. Under the relevant provision of pre-AIA law, a non-assignee that could demonstrate a proprietary interest in an invention was permitted to make the application on the inventor’s behalf. That provision remains. However, the pre-AIA requirement for a separate justification for doing so is removed in the AIA, i.e., the statutory text “justifying such action” (of making the patent filing) no longer appears in new § 118.

For any application filed by a person other than the inventor, new § 118 requires the patent to be granted to the real party in interest, which could be the recalcitrant inventor itself or, where an assignment was in place, the assignee. The “real party” provision replaces the more narrow provision in pre-AIA § 118 under which a non-assignee applicant, i.e., one showing only a “sufficient proprietary interest,” could not receive the patent grant itself, but only the inventor.

Having made these changes, the terminal clause in § 118 remains and permits the Office to provide (or require the provision of) notice to the inventor when patents will issue to assignees, as well as to the inventor itself. This provision has no obvious applicability in cases of assignment because the inventor will have authorized the patent filing and the patent grant will be a matter of public record.

The Necessity to Leave Pre-AIA § 102(f) with No AIA Statutory Counterpart

Another salient change in the statutory landscape as it relates to inventor-specific provisions is the repeal of the pre-AIA subsection (f) of § 102. It had provided that “[a] person shall be entitled to a patent unless . . . he himself did not invent the subject matter sought to be
patented.” This putative “loss of right to patent” provision, as such, should have been merely duplicative of the requirement that “[w]hoever invents or discovers” may obtain a patent under § 101. To the extent that this was simply § 101 in different words, there was no reason or purpose for incorporating a counterpart to it in the new law—especially given the imperative of moving to a transparent, objective, predictable and simple patentability law, devoid of “loss of right to patent” provisions.

By the time it had taken up patent reform in 2005, Congress was fully aware, however, that the Federal Circuit had determined, on account of the PLAA of 1984, that the pre-AIA § 102(f) must be read as more than an inventorship or “loss of right to patent” requirement. Indeed, this subsection had become a prior art provision for assessing obviousness. The courts had concluded that it would have made no sense for Congress to have excepted an inventor’s personal knowledge gleaned from another as “prior art” under the PLAA of 1984 unless it otherwise could somehow qualify as prior art. Thus, for almost 35 years after the 1952 Patent Act, there was no belief that § 102(f) was needed as a prior art provision, and the congressional decision in 1984 to (perhaps unintentionally) render it one has no rational explanation, especially in light of the utter dearth of pre-AIA § 102(f) jurisprudence.

Moreover, putting a “prior art” provision such as pre-AIA § 102(f) back into the new law would have undone the transparency/objectivity reforms that its elimination by the AIA worked to perfect. Congress simply rejected the notion that every individual named as an inventor on a patent application should be queried to determine what secret or private information the inventor was already aware of, from the work of someone else, at the time the invention was made by that individual, so that any such non-public information learned from others should then be provided to patent examiners to determine if the inventor’s claimed invention could be nonetheless regarded as “obvious” (perhaps in combination with other prior art).

The AIA’s new derivation provisions under § 135, coupled with ancillary changes to the patent statute, provide alternative remedies for an inventor in the situation where someone has learned of the inventor’s invention (i.e., derived from the inventor the personal knowledge of the type that was at issue in OddzOn) and sought a patent on the derived subject matter or some obvious variant of that derived knowledge. If the inventor—

95. While duplicative, its presence in pre-AIA § 102 was logically dictated by the preamble. The section needed to limit the right to inventors, i.e., “A person shall be entitled to a patent unless . . . he himself did not invent the subject matter sought to be patented.” 35 U.S.C. § 102(f) (1952).

96. The precedent arose in OddzOn Prods., Inc. v. Just Toys, Inc., 122 F.3d 1396 (Fed. Cir. 1997) and is attributable to this unfortunate aspect of the drafting of the PLAA of 1984.

97. In the “obvious variant derived” situation, the later-filing inventor should be able, in many situations, to make a joint inventorship claim, perhaps even a sole inventorship claim, on the obvious variant. This assertion can be advanced on the ground that disclosure of the complete conception of the invention to the deriver made an inventive contribution to the conception of the obvious variant—or was the sole inventive contribution to the obvious variant. In this typical case, if this assertion is established, it will then permit the inventor to use the derivation proceeding as a means for having the inventorship on the earlier-filed application corrected to reflect that the obvious variant was either a joint invention or, in some cases, the inventor’s sole invention. The correct inventor should be positioned in the derivation proceeding to have the naming of the inventor corrected for any involved application or patent. Once
tor succeeds in such a derivation claim, the inventor can decide which patent application, in which it would then have ownership, should issue as a patent. Thus, the AIA affords an inventor not just an alternative to an *OddzOn* defense, which merely destroys valid patent rights, but a superior option that was clearly engineered by Congress as a means to spare patentability.

**Naming the Inventor of the Application for Patent: The Fundamental Requirement**

The AIA contains, for the first time in the history of U.S. patent law, a simple, explicit requirement that “[a]n application for patent that is filed under section 111(a) [i.e., a nonprovisional U.S. patent filing] or commences the national stage under section 371 shall include, or be amended to include, the name of the inventor for any invention claimed in the application.” The provision of current law in § 111(b)(1) remains unchanged for provisional applications, i.e., a “provisional application for patent shall be made or authorized to be made by the inventor. . . .” These two provisions are linked together by § 118, which (as discussed above) has been amended by the AIA to provide that “[a] person to whom the inventor has assigned or is under an obligation to assign the invention may make an application for patent.”

These new provisions in the AIA thus operate together, such that the proper and correct naming of the inventor permits the legal chain of title to be established from the inventor to the assignee-applicant for patent. This switch from essentially 100 percent inventor-applicants to a system that is preponderantly non-inventor owner-applicants, afforded Congress the further opportunity to streamline the patenting process in the United States. It accomplished this streamlining to a remarkable degree. As discussed in more detail below, this includes diminishing to the point of near abolition the traditionally required “inventor’s oath” and affording a *bona fide* patent owner the opportunity to correct all errors and omissions in the inventor naming process.

**The New and Trivialized “Inventor’s Oath” Requirements**

*Simplified Inventor Documentation Needed before Allowance*

As just noted, new § 115(a) sets out the most fundamental requirement for any patent filing—an “application for patent that is filed under section 111(a) or commences the national stage under section 371 shall include, or be amended to include, the name of the inventor for any invention claimed in the application.” As § 100 dictates, the named inventor becomes the owner of the patent application, absent an assignment to another person.
Given that this inventor-centric framework continues under the new law, how did Congress proceed to ease the lot of patent applicants, whether inventors or their assigns?

First, patent applicants, potentially at least, may get some relief in the timing of the inventor identification. Nothing in § 115 requires that the Office mandate inventor identification at the time an application for patent is filed.98 As to the latest timing for naming an inventor, § 115(f) clarifies that the documentation from the inventor is required prior to the receipt of the notice of allowance—once substantive examination of an application for patent has concluded.99 Thus, it appears the Office may afford some flexibility in permitting inventor identification after filing, but in advance of the statutory deadline for submitting inventor documentation.

The importance of a timely identification of the inventor by the patent applicant can arise, for example, from the need to take advantage of the provisions of new § 102(b). This subsection permits a claimed invention to avoid a prior public disclosure or an earlier patent-filing disclosure that would otherwise constitute prior art to a claimed invention. Thus, use of new § 102(b)’s provisions inherently require that the inventor be identified. Typically, therefore, patent applicants will want to provide both inventor identification and inventor documentation early in the patent process, particularly given the “no-fault” approach to inventorship correction that the AIA now permits.

Second, the “oath” formality is greatly relaxed. New § 115(a) both continues the requirement that an oath be filed by the inventor or each joint inventor and, as under the pre-AIA law, maintains the “impossibility” exceptions under which the inventor or a joint inventor may be excused from filing an oath with the Office.100 However, beyond these continued provisions in the statute, there is an important exception that applies to any application where the inventor has assigned the invention to the assignee/patent appli-

98. The Office will administer the new provisions of the AIA by promulgating regulations that will set different timing requirements for the naming of the inventor (inventor identification) and for filing any required oath or alternative statement from the inventor (inventor documentation). Efficient examination dictates inventor identification information be supplied by the applicant for patent in advance of examination and nothing in the new statute would be inconsistent with the Office interpreting § 115 as requiring an initial identification of the inventor upon filing, with a right to amend continuing throughout the pendency of the application for patent.

99. “(f) Time for Filing.—A notice of allowance under section 151 may be provided to an applicant for patent only if the applicant for patent has filed each required oath or declaration under subsection (a) or has filed a substitute statement under subsection (d) or recorded an assignment meeting the requirements of subsection (e).” 35 U.S.C. § 115(f).

100. Under 35 U.S.C. § 115(d)(2), the “permitted circumstances” are set forth, namely that the inventor or a joint inventor:

(A) is unable to file the oath or declaration under subsection (a) because the individual—

(i) is deceased;  
(ii) is under legal incapacity; or  
(iii) cannot be found or reached after diligent effort; or

(B) is under an obligation to assign the invention but has refused to make the oath or declaration required under subsection (a).
Under this new exception, the option exists to avoid the filing of a separate oath or declaration. The required inventor documentation can be included in the inventor’s assignment of the invention.

Thus, the new statutory scheme affords a patent applicant optimal flexibility as to the requirement that the patent applicant identify the inventor and provide the required documentation. These options, however, merely scratch the surface of the reforms in the AIA—assuming that the Office’s implementation of the new law takes the fullest possible advantage of its remedial provisions.

Inventor Documentation: Required Authorization/Confirmation Statements

Assuming the Office implements § 115 in the same remedial spirit in which Congress crafted the new section, then the sole required averment from the inventor—through an inventor’s oath or the alternative documentation now permitted by statute—will be found in new § 115(b). The new statutory requirement consists of nothing more than two simple, formal statements, an authorization and a confirmation, namely that:

(1) the application was made or was authorized to be made by the affiant or declarant; and
(2) such individual believes himself or herself to be the original inventor or an original joint inventor of a claimed invention in the application.102

The Office retains the authority to require additional inventor documentation. However, the self-evident intent of § 115 is that such authority remain unused or be implemented sparingly.103

The only other formality that has survived the AIA’s reforms is the “Title 18 Warning Statement” that applies should the form in which the required statements are made to the Office be other than through an oath.104 This warning requirement had not been present in earlier iterations of new § 115, e.g., H.R. 2795 (109th Cong.), but was added to the end of new § 115 under the AIA.105

101. “Except as otherwise provided in this section, each individual who is the inventor or a joint inventor of a claimed invention in an application for patent shall execute an oath or declaration in connection with the application.” 35 U.S.C. § 115.
103. “(c) ADDITIONAL REQUIREMENTS.—The Director may specify additional information relating to the inventor and the invention that is required to be included in an oath or declaration under subsection (a).” 35 U.S.C. § 115(c).
104. “(i) ACKNOWLEDGMENT OF PENALTIES.—Any declaration or statement filed pursuant to this section shall contain an acknowledgment that any willful false statement made in such declaration or statement is punishable under section 1001 of title 18 by fine or imprisonment of not more than 5 years, or both.” 35 U.S.C. § 115(i).
105. Such a warning statement would appear to be no more warranted in connection with § 115 submissions than in connection with any of the submissions that are typically made in connection with a patent application. Specifically, Congress could not have intended (by negative implication) to suggest that the 18 U.S.C. § 1001(a) requirements for candor and forthrightness do not attach to all other submissions made to the Office in connection with patent applications. Thus, this requirement should be a candidate for elimination as Congress contemplates technical improvements to the AIA.
Alternative to the Submission of an Oath or Declaration in the Assignment

As noted above, Congress ended the requirement for a separate inventor’s oath or declaration to be part of a complete patent filing by allowing the authorization-confirmation statements to be included in an assignment executed by the inventor or a joint inventor. This option is likely to be routinely exercised by patent applicants that are assignees, especially given the simplicity and economy of including the authorization to file the patent application and the confirmation of inventorship status that is inherent in the § 115(b) required statements.

This economy, of course, is somewhat dependent upon the appropriate implementation by the Office. Given, however, the prospect that no additional formal requirements will be dictated by the Office, the vast majority of assignee-owned U.S. patent filings should contain no separate “oath or declaration” as was mandated by pre-AIA § 115, but have only an assignment filed by the inventor or each joint inventor that authorizes the patent filing and confirms the right to authorize as the inventor or a joint inventor.

The Two-Statement/One-Time Nature of Required Inventor Documentation

The current practice of making the inventor’s oath or declaration consists of a potpourri of statements and obligations, all required for a proper nonprovisional patent filing, many of which become compelling candidates for retirement under the AIA. The AIA, thus, holds the prospect that the two statements to be required will both appear in the assignment and that the requirement will—in all patent procurement contexts—be a one-time event.

The one-time opportunity arises because new § 115 contains further remedial features:

- If the required statements of the inventor or a joint inventor have been properly filed in connection with a parent patent application, then no continuing application for patent, including a continuation-in-part application that contains newly claimed subject matter, needs to include any required statement from that inventor or joint inventor. The authorization to file the parent application, by statute, encompasses

106. “(e) MAKING REQUIRED STATEMENTS IN ASSIGNMENT OF RECORD.—An individual who is under an obligation of assignment of an application for patent may include the required statements under subsections (b) and (c) in the assignment executed by the individual, in lieu of filing such statements separately.” 35 U.S.C. § 115(e).

107. See 37 C.F.R. § 1.63. Two of these required averments can be found in § 1.63(b)(2) (“State that the person making the oath or declaration has reviewed and understands the contents of the application, including the claims, as amended by any amendment specifically referred to in the oath or declaration.”) and § 1.63(b)(3) (“State that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in § 1.56.”).

108. Under 35 U.S.C. § 115(g)(1), the one-time nature of the requirements is fully addressed:

(1) EXCEPTIONS.—The requirements under this section shall not apply to an individual with respect to an application for patent in which the individual is named as the inventor or a joint inventor and who claims the benefit under section 120, 121, or 365(c) of the filing of an earlier-filed application, if—

(A) an oath or declaration meeting the requirements of subsection (a) was executed by the individual and was filed in connection with the earlier-filed application;
the right to file any such continuing applications and expand the scope of protection
being sought therein, without further inventor authorization.109

- The AIA ends the practice of requiring supplemental oaths or declarations from
inventors.110 The Office had not only required such supplemental filings to cor-
rect mistakes in the originally filed oath, but mandated such supplementation
“when a claim is presented for matter originally shown or described but not
substantially embraced in the statement of invention or claims originally pre-
sent or when an oath or declaration submitted in accordance with [37 C.F.R.]
§ 1.53(f) after the filing of the specification and any required drawings specifi-
cally and improperly refers to an amendment which includes new matter.”111 This
change in the statute operates in tandem with the bar to requiring a new oath or
declaration in connection with any continuing application for patent.

- The AIA ends the practice of requiring an oath or declaration if a reissue patent is
sought, including a broadening reissue. The prohibition on “filing additional state-
ments” specifically applies not only to applications in which the Office might
impose such a requirement but to “any patent issuing” on a patent filing, which
necessarily includes patents for which reissue is being sought.

- Although the Office’s practice of permitting correction of a defective oath through
a “supplemental oath” has been ended, it has been replaced with a far more sweeping
statutory right of inventors to “withdraw, replace, or otherwise correct the
[inventor’s required] statement at any time.”112

This plenary opportunity to fix any statement made in an oath or declaration—or, if
the assignment option is elected, in the inventor’s assignment—is accompanied by an
equally expansive savings clause:

(B) a substitute statement meeting the requirements of subsection (d) was
filed in connection with the earlier filed application with respect to the indi-
vidual; or

(C) an assignment meeting the requirements of subsection (e) was executed
with respect to the earlier-filed application by the individual and was recorded in
connection with the earlier-filed application.

109. Note should be taken that, as part of the legislative process, the Office did insist
upon the right to have copies of the required statements provided in any continuing applica-
tion. This requirement appears in 35 U.S.C. § 115(g)(2): “(2) COPIES OF OATHS, DECLARATIONS,
STATEMENTS, OR ASSIGNMENTS.—Notwithstanding paragraph (1), the Director may require that a
copy of the executed oath or declaration, the substitute statement, or the assignment filed in
connection with the earlier-filed application be included in the later-filed application.” This,
again, represents an opportunity for the Office not to increase the formalities burden on patent
applicants and not insist on any further requirement via rulemaking.

110. “(2) SUPPLEMENTAL STATEMENTS NOT REQUIRED.—If an individual has executed an oath or
declaration meeting the requirements of subsection (a) or an assignment meeting the require-
ments of subsection (e) with respect to an application for patent, the Director may not thereaf-
ter require that individual to make any additional oath, declaration, or other statement
equivalent to those required by this section in connection with the application for patent or

111. See 37 C.F.R. § 1.67—Supplemental Oath or Declaration.

(3) Savings Clause.—A patent shall not be invalid or unenforceable based upon the failure to comply with a requirement under this section if the failure is remedied as provided under paragraph (1).

The aggregate of the statutory framework in § 115 becomes clear only when this savings clause is considered with the other remedial provisions. While it was not politically possible to strip a provision from Title 35 relating to the inventor’s oath or declaration altogether, Congress worked assiduously to accomplish the functional elimination of the requirement and any consequences flowing from any deficiency in the compliance with this formality.

The oath or declaration need not be supplied at all until the patent is ready to issue. The Office was encouraged to reduce the requirement to nothing more than the inventor’s authorization to file the patent application and to confirm the inventor’s status as the properly named inventor. Once filed, the filing applied no matter its ultimate fate—whether disclosed, but unclaimed, subject matter was to be made the subject of a claimed invention, or a continuing application was to add new disclosure and newly claimed subject matter. And, for the vast majority of patent filings, the separate oath can be dispensed with altogether; the required statements can be simply included in an assignment document. Thus, although not rendering § 115 a dead-letter, it comes very close to being a non-letter.

Correction of Inventorship: New Opportunities for Patent Applicants

The manner in which Congress approached inventorship correction issues in the AIA was, as noted earlier, multifaceted. It began with the new statutory inventor-naming requirement in § 115(a). This requirement states that an application for patent “shall include, or be amended to include, the name of the inventor for any invention claimed in the application.” It not only provides for an amended naming of the inventor, but for an unrestricted ability to do so. Moreover, it sets no time limitation on when the application must be amended to comply with the naming requirement. As noted earlier, the sole timing requirement is set out in § 115(f). Congress allowed the amendment and any required documentation to be made as late as the time the Office is preparing to provide a “notice of allowance”

Other provisions of the patent statute likewise afford the prospect for flexibility in the naming of—or modifying the naming of—the inventor. In the AIA’s new “derivation” proceeding, “[i]n appropriate circumstances, the Patent Trial and Appeal Board may correct the naming of the inventor in any application or patent at issue.” In § 116(c), the phrase “and such error arose without any deceptive intention on his part” was stricken so that the statute now provides: “Whenever through error a person is named in an application for patent as the inventor, or through error an inventor is not named in an application, the Director may permit the application to be amended accordingly, under such terms as

114. “If it appears that applicant is entitled to a patent under the law, a written notice of allowance of the application shall be given or mailed to the applicant.” 35 U.S.C. § 151.
he prescribes.” The same result was achieved in § 256(a), which now reads: “Whenever through error a person is named in an issued patent as the inventor, or through error an inventor is not named in an issued patent, the Director may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issue a certificate correcting such error.”

The aggregate impact of these changes to the law should allow—in virtually every imaginable situation—for the inventorship of an application or patent to be correctly named and, once correctly named, for a patent that otherwise would be invalid to be restored to validity—and a patent that otherwise might be unenforceable to be restored to full enforceability. The consequence, of course, of this facility to correctly name inventors is that ownership of a patent will likewise be rightful, which would not be the case in any situation where a change in the naming of the inventor would render the assignment of the patent ineffective to confer title or properly vest title in a new inventor-owner.

SUPPLEMENTAL EXAMINATION: THE ULTIMATE BOON FOR THE HONEST PATENT APPLICANT

As remarkable as many of the reforms in the AIA are, none stands taller than the decision by Congress to permit timely correction to be made of any errors and omissions in the original proceedings before the Office that led to the decision to issue a patent. The new congressional vehicle for accomplishing this end is found in a new statutory section, § 257, and was christened by its congressional champion as “supplemental examination.”

For a patent that successfully navigates the new procedure, an unenforceability defense to patent infringement, based on missing or incorrect information in the original examination, is barred. Importantly, such a defense is barred even in a situation where the earlier error or omission might otherwise constitute so-called “inequitable conduct,” i.e., was the product of a deceptive intention.

Creating supplemental examination implements, at least partially, the National Academies’ recommendation to end the oft-cited “plague” of “inequitable conduct” allegations in patent litigation.

119. This provision becomes effective on September 16, 2012, and applies to all patents, whenever issued. “The amendments made by this section shall take effect upon the expiration of the 1-year period beginning on the date of the enactment of this Act and shall apply to any patent issued before, on, or after that effective date.” Pub. L. No. 112-29, § 12(c), 125 Stat. 327.
120. Recommendation 6 in the National Academies’ report (p. 7) laid out the problem the “inequitable conduct” defense presents in patent litigation: 6. Modify or remove the subjective elements of litigation. Among the factors that increase the cost and decrease the predictability of patent infringement litigation are issues unique to U.S. patent jurisprudence that depend on the assessment of a party’s state of mind at the time of the alleged infringement or the time of patent application. These include whether someone “willfully” infringed a patent, whether a patent application included the “best mode” for implementing an invention, and whether an inventor or patent attorney engaged in “inequitable conduct” by intentionally failing to disclose all prior art when applying for a patent. Investigating these questions requires time-consuming, expensive, and ultimately subjective pretrial discovery, a
address concerns over the manner in which most important patent infringement litigation of the pre-AIA era was infected with “inequitable conduct” allegations. The Federal Circuit has developed a similar antipathy to the promiscuous use of the defense. If there is any possibility for regret over the new provision on supplemental examination, it is not that it went too far as a reform but rather that it did not go far enough in preempting the “inequitable conduct” plague.

In part, the inability of Congress to eliminate the defense altogether through the AIA was more political than rational policy. Most regrettably, some of the proponents for keeping an “inequitable conduct” defense viable were leading patent litigators within the patent bar itself.

The affinity of some in the patent bar for maintaining an “inequitable conduct” doctrine arose from an expressed concern over the possibility of securing what are termed “scarecrow” patents, i.e., patents with narrow claims that are valid and broader claims procured by intentionally withholding or misstating critical information that, had the patent examiner been aware of the information, would have prevented a valid patent from being granted on the broader claims. It was in part the “scarecrow” patent concern that ultimately led the ABA IPL Section to abandon its position that the “inequitable conduct” defense should be removed from all patent litigation.

principal source of soaring litigation costs. The committee believes that significantly modifying or eliminating these rules would increase the predictability of patent dispute outcomes without substantially affecting the principles that these aspects of the enforcement system were meant to promote.

121. See generally Therasense, Inc. v. Becton, Dickinson & Co., 649 F.3d 1276 (Fed. Cir. 2011) (en banc).

122. See S. 3600 (110th Cong.), § 11(a), which provided under a new 35 U.S.C. § 298 that the defense would be entirely preempted as a defense to the enforceability of a patent.

123. While this hypothetical may appear strained in the extreme, it actually was offered in debates within the organized patent bar in the course of taking positions in opposition to legislative proposals that would have ended altogether the “inequitable conduct” defense. While the “scarecrow” patent scenario is limited to partially valid, partially invalid patents where the invalid claims represent broader claims that could not have been secured but for “inequitable conduct,” no actual example of such a patent has ever been identified in any of the discourse on this subject. Self-evidently, wholly valid patents, fully meeting all the requirements for patentability, cannot be characterized as frauds. Likewise, securing a wholly invalid patent through a fraud cannot be deterred through a deterrent that operates by declaring something already unenforceable on account of its invalidity additionally unenforceable on account of misconduct. Hence, the highly constrained hypothetical was offered in order to identify a situation where maintaining an “inequitable conduct” doctrine had the potential for a policy justification, however improbable the underlying hypothetical.

124. The ABA IPL Section adopted a position in March 2008 that a patent could not “be held invalid or unenforceable based upon misconduct before the United States Patent and Trademark Office” if the owner of a patent in which possible misconduct was suspected agreed to seek reissue of the patent to consider information that had been omitted or misstated in the original examination record. Patent Law Reform Task Force TF-08-02 (March 2008). The unfortunate step backward by the Section took place several months later: “Section opposes, in principle, legislation eliminating the defense of unenforceability of a patent based on inequitable conduct in the United States Patent and Trademark Office (“PTO”) in favor of proceedings in the PTO; and, NOW THEREFORE, the Section rescinds its approval of Resolution TF-08-02 that was adopted by Council in March, 2008.” Patent Law Reform Task Force ICWG-5 (January 13, 2009).
Because of the manner in which the AIA has rebalanced the operation of the patent system, any real prospect of a true “scarecrow” patent wrongfully frightening competitors away from a particular field of invention has disappeared. Perhaps the demise of the “scarecrow” patenting may encourage further reform efforts, should Congress take up the issue of a fuller implementation of the National Academies’ recommendation to abolish the unenforceability defense altogether. This may now be politically possible given that the “scarecrow” issue has been discredited, and distinguished proponents of further reforms are among the abolitionists.

125. The arguments that “scarecrow” patents actually existed and, once obtained, could frighten potential competitors from a field of invention, largely rested on features of the patent system in the pre-AIA era of patenting. As noted earlier, it was an era when patent applicants could hide important information, much of which was unavailable to the public, and the public itself had no role in the patenting process—either before the patent issued or afterwards. Unlike patents of the pre-AIA era, the information that determines whether a valid patent under the AIA can issue with broad versus narrow claims is essentially confined to information available to the public, and Congress afforded the public the opportunity to expose such information to the patent examiner before a decision can be made to issue a broad patent. And then, once the patent issues, the public can again return to the Office and seek cancelation of any overly broad claims. This can be done based upon publicly available information that might not have been theretofore considered by the Office or a violation of one of the objective standards for patentability. Thus, AIA patents that are invalid—whether secured based on some type of misconduct or not—will not function as “scarecrows” because of the facility with which publicly accessible sources of information will reveal that their overly broad claims cannot be sustained.

126. To reiterate, a competitor in the AIA era, seeking to understand whether the patent standing in the field of the invention was a real obstacle or a mere scarecrow would vet the patent filing, reference publicly accessible sources of information—and make a determination of whether the patent deserved respect. There is nothing particularly scary about an overly broad patent in the AIA era when a skilled person, accessing only publicly accessible sources of information, is able to determine the validity of a patent—whether the patent owner withheld or misstated information in the course of securing the patent and whether that omission or misstatement was intentional or accidental.

127. Subsequent to the issuance of the National Academies’ report, one of the co-chairs of the National Academies’ study, Dr. Richard Levin, President, Yale University, put a finer point on the Academies’ recommendation to end subjective elements in patent litigation, namely willful infringement allegations and allegations of fraud or other inequitable conduct as a grounds for patent unenforceability. Dr. Levin attributed any desire for keeping any vestige of these doctrines to patent professionals, noting the unanimous preference of all but the organized patent bar for seeking their outright abolition:

[O]n our committee every single economist and business person was convinced that we should eliminate both the willful infringement and inequitable conduct doctrines, period. Get rid of them. They don’t really serve an important purpose. I still believe that personally.

The New Mechanism for Supplemental Examination

Procedurally, supplemental examination has a simple structure.128 A patent owner may seek supplemental examination in order to allow the Office to consider, reconsider or correct information that is—or may be—relevant to the patent.129 Supplemental examination must be conducted by the Office within a three-month window after the patent owner has made the supplemental examination request. A supplemental examination automatically concludes on or before the three-month statutory deadline. Upon termination, the Office must provide a certificate in which the Office indicates whether any information provided during the supplemental examination raises a “substantial new question of patentability,” the standard under Chapter 30 for the Office to institute an ex parte reexamination of a patent.130

If no substantial new question of patentability is found, the entire procedure is completed. If one or more substantial new questions of patentability are set out in the § 257(a) certificate, then the supplemental examination, although formally completed, triggers a new type of ex parte reexamination of the patent. This new type of reexamination is instituted to address each substantial new question of patentability uncovered during the supplemental examination.131 Otherwise, the provisions in chapter 30 of title 35 largely apply, such that the reexamination must end with a certificate of patentability issuing, under which the patent claims may be confirmed as valid, amended, or canceled, all based upon the determinations made in reexamination.132

128. The Office is given authority to levy fees on the request and promulgate more detailed rules for its conduct. See 35 U.S.C. § 257(d):

(d) FEES AND REGULATIONS.—

(1) FEES.—The Director shall, by regulation, establish fees for the submission of a request for supplemental examination of a patent, and to consider each item of information submitted in the request. If reexamination is ordered under subsection (b), fees established and applicable to ex parte reexamination proceedings under chapter 30 shall be paid, in addition to fees applicable to supplemental examination.

(2) REGULATIONS.—The Director shall issue regulations governing the form, content, and other requirements of requests for supplemental examination, and establishing procedures for reviewing information submitted in such requests.

129. “A patent owner may request supplemental examination of a patent in the Office to consider, reconsider, or correct information believed to be relevant to the patent, in accordance with such requirements as the Director may establish.” 35 U.S.C. § 257(a).

130. “Within 3 months after the date a request for supplemental examination meeting the requirements of this section is received, the Director shall conduct the supplemental examination and shall conclude such examination by issuing a certificate indicating whether the information presented in the request raises a substantial new question of patentability” Id.

131. “If the certificate issued under subsection (a) indicates that a substantial new question of patentability is raised by 1 or more items of information in the request, the Director shall order reexamination of the patent. . . . During the reexamination, the Director shall address each substantial new question of patentability identified during the supplemental examination, notwithstanding the limitations in chapter 30 relating to patents and printed publication or any other provision of such chapter.” 35 U.S.C. § 257(b).

132. 35 U.S.C. § 307 remains applicable, requiring the Office to issue a “certificate canceling any claim of the patent finally determined to be unpatentable, confirming any claim of the patent determined to be patentable, and incorporating in the patent any proposed amended or new claim determined to be patentable.”
Consequences on Enforceability of a Patent Following Supplemental Examination

A patent owner that elects supplemental examination, and owns a patent that survives the procedure, with the remaining patent claims reconfirmed as being valid over new or corrected information, is rewarded with a heightened prospect that the patent will be enforceable:

A patent shall not be held unenforceable on the basis of conduct relating to information that had not been considered, was inadequately considered, or was incorrect in a prior examination of the patent if the information was considered, reconsidered, or corrected during a supplemental examination of the patent. The making of a request under subsection (a), or the absence thereof, shall not be relevant to enforceability of the patent under section 282. 133

The procedure provides an incentive for patent owners that determine errors or omissions may have existed in the patent procurement record before the Office to take action to remedy any potential deficiencies. It equally assures the public that the full patent examination record, as supplemented under new § 257, will be more complete and more accurate, and further assures that the resulting patent will be limited only to claimed inventions that have been twice determined to be fully patentable, the second time based upon the enhanced examination record. Moreover, it permits any material fraud in connection with the procurement of the patent to be addressed, as appropriate, 134 and assures that no conflict can exist between the remedy under supplemental examination and other consequences flowing from actual misconduct before the Office. 135

133. 35 U.S.C. § 257(c)(1).
134. The Director is given authority to make referrals to the Attorney General in situations where a material fraud has been detected. See 35 U.S.C. § 257(e):
(e) FRAUD.—If the Director becomes aware, during the course of a supplemental examination or reexamination proceeding ordered under this section, that a material fraud on the Office may have been committed in connection with the patent that is the subject of the supplemental examination, then in addition to any other actions the Director is authorized to take, including the cancellation of any claims found to be invalid under section 307 as a result of a reexamination ordered under this section, the Director shall also refer the matter to the Attorney General for such further action as the Attorney General may deem appropriate. Any such referral shall be treated as confidential, shall not be included in the file of the patent, and shall not be disclosed to the public unless the United States charges a person with a criminal offense in connection with such referral.
135. Under 35 U.S.C. § 257(f), the following interface is created between supplemental examination’s remedies and other consequences flowing from misconduct before the Office:

Nothing in this section shall be construed—
(1) to preclude the imposition of sanctions based upon criminal or antitrust laws (including section 1001(a) of title 18, the first section of the Clayton Act, and section 5 of the Federal Trade Commission Act to the extent that section relates to unfair methods of competition);
(2) to limit the authority of the Director to investigate issues of possible misconduct and impose sanctions for misconduct in connection with matters or proceedings before the Office; or
(3) to limit the authority of the Director to issue regulations under chapter 3 relating to sanctions for misconduct by representatives practicing before the Office.”
The other key feature of the supplemental examination is that it encourages prompt action by patent owners to complete or correct the patent examination record. This encouragement comes in the form of two exceptions to the bar on unenforceability.

The first exception relates to conduct by persons other than the patent owner. It creates an exception to the unenforceability bar for allegations of misconduct made with particularity before the supplemental examination is requested. It includes, for example, such allegations appearing in a pleading seeking a declaratory judgment of patent unenforceability. Alternatively, such allegations may arise in litigation under the Drug Price Competition and Patent Term Restoration Act of 1984 in situations where such allegations have been made in a so-called “Paragraph IV Notice” by a person seeking approval to mark a generic version of a new drug through an abbreviated approval process, e.g., an abbreviated New Drug Application.

The second exception relates to conduct by the patent owner. It applies to situations in which the patent owner enforcing the patent and requires that the supplemental examination—and any reexamination ordered—be entirely complete before the patent is enforced. Thus, both exceptions effectively require that supplemental examination be sought to correct errors and omissions in the original examination of a patent with alacrity once they become manifest.

Use of Supplemental Examination by Patent Owners: The Public Benefit

New § 257 ought to encourage greater candor on the part of patent applicants dealing with patent examiners by lessening the imperative to provide massive quantities of prior art of relatively marginal relevance. It should additionally temper the phobia that exists with respect to offering any characterization of the importance or relevance of any of the prior

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138. “Abbreviated New Drug Applications” are authorized under 21 U.S.C. 355(j) and require a statement by the applicant to be made with respect to each patent listed with the FDA in connection with the corresponding New Drug Application (21 U.S.C. 355(b)) referenced in the ANDA. If a patent is believed to be invalid or not infringed, the notice required is the so-called Paragraph IV Notice that may contain allegations of unenforceability.
139. The text of the two exceptions, 35 U.S.C. § 257(c)(2), follows:

(2) Exceptions.—

(A) PRIOR ALLEGATIONS.—Paragraph (1) shall not apply to an allegation pled with particularity in a civil action, or set forth with particularity in a notice received by the patent owner under section 505(j)(2)(B)(iv)(II) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 355(j)(2)(B)(iv)(II)), before the date of a supplemental examination request under subsection (a) to consider, reconsider, or correct information forming the basis for the allegation.

(B) PATENT ENFORCEMENT ACTIONS.—In an action brought under section 337(a) of the Tariff Act of 1930 (19 U.S.C. 1337(a)), or section 281 of this title, paragraph (1) shall not apply to any defense raised in the action that is based upon information that was considered, reconsidered, or corrected pursuant to a supplemental examination request under subsection (a), unless the supplemental examination, and any reexamination ordered pursuant to the request, are concluded before the date on which the action is brought.
By the same token, once a patent has issued, new § 257 should be particularly helpful for patent owners seeking to license patent rights to a party willing to invest to develop a patented invention for commercial use, as well as a patent owner seeking itself to bring an invention to commercial life, but needing outside investors to supply the necessary capital for doing so. In either situation, where a due diligence process yields potential issues of validity or even enforceability based on apparent errors or omissions in the original examination of the patent, § 257 provides a complete remedy for the potential investor. A patent emerging from the supplemental examination process will be more reliably valid and enforceable and, thus, a more secure investment vehicle.

In a similar vein, for a patent that may be enforced against a competitor, pre-litigation due diligence may uncover potential deficiencies in the original examination of the patent. These can be fully addressed in a supplemental examination. The patent claims that survive supplemental examination ought to be more readily enforceable.

For the most commercially significant patents, supplemental examination was designed by Congress to be a compelling opportunity. However, equally compelling are the benefits for the public. For the relatively important patents that might return to the Office for a supplemental examination, the Office will be afforded a second opportunity to eliminate claims of the patent that should not have issued. It is certain that such patents will receive a careful scrutiny. The net consequence of such scrutiny is that the public can have greater confidence that the fuller and more accurate record before the Office has produced very carefully examined patents that deserve respect.

**New and Creative Patent Prosecution Options Making Use of Supplemental Examination**

The broad availability of supplemental examination, coupled with its rapid time to conclusion, affords the Office the ability to offer applicants new and creative patent prosecution options that make use of the availability of supplemental examination. One such option merits consideration.

For a patent applicant desiring that the Office consider a substantial number of potentially relevant items that might qualify as prior art, the Office could provide by regulation that such items could be submitted under a two-tiered approach. The tier one items could be a limited number of the most pertinent disclosures, to which the actual examination of the patent would be confined. Tier two items would be remaining items that potentially qualify as prior art. For tier two prior art, before enforcing the patent, the patent applicant may wish to assure that they have been considered by the Office and affirmed as being of no relevance to patentability.

Rulemaking might provide that patent applicants be permitted to defer submission to the Office of all tier two items until either after the notice of allowance of the patent has been secured or the patent has issued. In order to do so, the patent applicant would be permitted to make an election to submit only items deemed by the applicant to be of the most relevance to patentability. A patent applicant making such election would be re-
quired to submit a concise description of the relevance or significance of each tier one item as part of the election. By electing to provide to the Office any tier two items only after allowance or issuance, the applicant would be deemed by the Office to have additionally requested supplemental examination with respect to such tier two items immediately upon grant of the patent.

Again by regulation, the Office could provide that all fees for the supplemental examination would be waived, except in the situation where the supplemental examination triggered a reexamination of the patent and the reexamination required some modification of the claims of the patent. In such a case, all required fees for supplemental examination would fully apply.

The impact of such a procedure, in the vast majority of circumstances, would be that the Office could conduct a more efficient initial examination of the application for patent, based on the more focused and complete assessment of the possible prior art provided by the patent applicant. The examined application could issue more promptly. Once issued, the supplemental examination, which would commence immediately upon issuance, would then assess the significance of the tier two items. In most situations, the secondary items should not uncover any substantial new question of patentability. Thus, typically, the supplemental examination could conclude within three months after the patent issued.

If a follow-on reexamination were needed because a question of patentability had been detected, it presumably would be limited to one or more relatively narrow issues, and be relatively quickly and efficiently resolved. If any material prior art were identified in tier two, such that the patent claims required modification, then the patent applicant could not be later subject to unenforceability for misconduct, but would pay the full-freight fees for the supplemental examination/reexamination.

While the Office may or may not be prepared to affirmatively encourage a two-tier approach to submission of information that might qualify as prior art, applicants might make de facto use of such a strategy. Doing so outside the umbrella of regulations would mean, of course, that the applicant would not have the benefit of the fee waiver, and the Office would not have the benefit of the required characterization of the significance of the tier one items.

DECEPTIVE INTENTION LIMITATIONS ON REMEDIAL ACTION: CONGRESSIONAL REPEAL

During the 175 years following enactment of the Patent Act of 1836,140 Congress provided that “deceptive intention” on the part of the patent applicants and patent owners be taken

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140. 5 Stat. 117 (July 4, 1836); see id. § 13 (providing, in what is an analog to the reissue provision in 35 U.S.C. § 251, that “whenever any patent which has heretofore been granted, shall be inoperative, or invalid, by reason of a defective or insufficient description or specification, or by reason of the patentee claiming in his specification as his own invention, more than he had or shall have a right to claim as new; if the error has, or shall have arisen by inadvertency, accident, or mistake, and without any fraudulent or deceptive intention, it shall be lawful for the Commissioner, upon the surrender to him of such patent, and the payment of the further duty of fifteen dollars, to cause a new patent to be issued to the said inventor, for the same invention, for the residue of the period then unexpired for which the original patent was granted, in accordance with the patentee’s corrected description and specification”) (emphasis added).
into account in order to determine whether or not certain remedies would be available or remedial actions might be taken. Until the 1952 Patent Act, the statutory language was double-barreled, specifically referencing “fraudulent or other deceptive intention.”\footnote{No congressional fanfare accompanied the deletion of the specific reference to “fraudulent” activities. See Federico at 204. “First, the phrase ‘if the error has arisen by inadvertence, accident or mistake, and without any fraudulent or deceptive intention’ has been replaced by ‘through error without any deceptive intention.’ There is no indication in the printed record that this change in language was intended to effect any change in substance and, since the old phrase was usually rather liberally construed, except when the reissue sought to recapture claims cancelled during the prosecution of the original patent, this question would be of minor significance except in connection with the situation mentioned.”} The provisions appeared in the statute in a hit-or-miss fashion.\footnote{As an example, the Patent Act of 1870 provided the ability to disclaim parts of a patent that were overly broad, but the right to disclaim was limited. See 16 Stat. 198, § 54 (July 8, 1970) (“[W]enever, through inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, a patentee has claimed more than that of which he was the original or first inventor or discoverer, his patent shall be valid for all that part which is truly and justly his own, provided the same is a material or substantial part of the thing patented; and any such patentee, his heirs or assigns, whether of the whole or any sectional interest therein, may, on payment of the duty required by law, make disclaimer of such parts of the thing patented as he shall not choose to claim or to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent.”) (emphasis added).} It was difficult to justify their appearance in some, but not other, specific sections of the patent statute.

A prime example of an apparent misplacement of a “deceptive intention” bar to a remedial action was the 1952 addition to the patent code’s so-called “foreign filing license” provisions. Such licenses must be granted before international patent protection can be sought for an invention. Under the 1952 statute, the ability of the Office to grant such licenses retroactively existed only in situations “where an application has been filed abroad through error and without deceptive intent and the application does not disclose an invention within the scope of section 181.”\footnote{35 U.S.C. § 184 (1952) (emphasis added).} Under § 181, no licenses are available if secrecy is required for national security reasons. A companion statutory provision provided that a “patent issued to [a patent applicant failing to obtain such a license] shall be invalid, unless the failure to procure such license was through error and without deceptive intent, and the patent does not disclose subject matter within the scope of section 181 of this title.”\footnote{35 U.S.C. § 185 (1952) (emphasis added).}

It appears that during the 60 years that these §§ 184 and 185 “deception intention” provisions have been a part of the patent statute they have never been the subject of contention (much less litigation). More to the point, were they ever to be a point of contention, they would almost certainly be a redundancy. It is difficult to imagine a scenario under which a patent applicant whose invention raised no national security concerns would be motivated to engage in deceptive intent to avoid seeking a license that would be freely available and freely granted. The only plausible scenario that would apply is where the patent applicant, through deception, sought to evade the licensing process because of national security implications—where retroactive licenses are statutorily barred and the patent is automatically invalid under the statute, irrespective of deceptive intentions.
The AIA afforded an opportunity that Congress seized to rethink the need for such “deceptive intention” provisions from the ground up. Removing them from §§ 184 and 185 was perhaps an easy choice. The same might be said for ejecting “deceptive intention” limitations from the inventor-naming provisions of §§ 116 and 256.

As noted above, specific policy objectives were well served with the abolition of the “deceptive intention” limitations that applied to frustrate the ability to change the naming of the inventor in connection with an application for patent. Because the limitations applied categorically to any source of the deceptive intent, they stymied remedial action even where it made no policy sense whatsoever to deny a patent owner a simple remedy.145

However, the wholesale removal from all provisions of the statute reciting “deceptive intention” would have been less readily accomplished absent the consistent push for a more objectively based patent law, free from all subjective issues grounded on intent. Fortunately, credible reform voices led the way on the issue of wholesale repeal of all “deceptive intention” provisions.

The most significant push came from two primary sources. As noted earlier, the National Academies, in its 2004 report, had assailed the “subjective elements” in the patent law and called for their elimination. Although later recanting its views on the subject, the American Bar Association’s Intellectual Property Law Section was adamant that all of the “deception intention” provisions in Title 35 merited repeals and its bold position was instrumental in the efforts that resulted in this reform being revived in the legislative text.146

Under the AIA, all such provisions are now repealed.147 In addition to the provisions discussed above, the AIA’s changes to the patent law will favorably impact patent owners seeking reissue, as well as those seeking to enforce partially valid (and partially invalid) patents.

145. For example, if the patent owner had no involvement whatsoever in the failure to correctly name inventors—essentially was a victim of the deceptive intent—the otherwise fully valid and fully enforceable patent was destroyed simply because the corrected names of the inventor or joint inventors could not be put on the patent. Congress not only remedied this defect in the pre-AIA patent law, but afforded inventors other remedial pathways for better securing validity and enforceability of their patents.

146. See ABA IPL Section, A Section White Paper: Agenda for 21st Century Patent Reform (May 1, 2007), at p. 23 (“The Section favors, in the context of implementing a first-inventor-to-file system, legislation removing the provisions in the patent statute requiring an assessment of ‘deceptive intent’ on the part of the inventor or others in order to undertake certain remedial actions or to seek certain types of relief.”). At page 24, the ABA IPL Section noted that its proposed reform, “takes the recommendation of the NRC [National Research Council of the National Academies of Science] on the elimination of ‘subjective elements’ from the patent laws to the next level by removing from the patent laws the issues of ‘deceptive intent’ that must be addressed in order for an inventor to take some remedial action or to seek certain types of relief.”). See http://www.americanbar.org/content/dam/aba/migrated/intelprop/home/PatentReformWP.authcheckdam.pdf (last visited Dec. 1, 2011).

147. The repeal is effected under the “technical amendments” section of the AIA, § 20. Under subsection (l), the effect and effective date are set out: “The amendments made by this section shall take effect upon the expiration of the 1-year period beginning on the date of the enactment of this Act and shall apply to proceedings commenced on or after that effective date.” This repeal, thus, applies to all supplemental examinations, appeals, ex parte examinations and reexaminations, and non-Office proceedings commencing on or after September 16, 2012.
Reissue Available in Situations Where Deceptive Intent May Have Been Present

Congress, since 1836, has provided that defective patents can be surrendered and a replacement patent or patents issued in place of the surrendered patent. Under the AIA, the reissue provision will now read:

Whenever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Director shall, on the surrender of such patent and the payment of the fee required by law, reissue the patent for the invention disclosed in the original patent, and in accordance with a new and amended application, for the unexpired part of the term of the original patent.\(^{148}\)

The amended reissue statute, with the “deceptive intention” provision stripped away, will complement the new opportunity for supplemental examination. Unlike supplemental examination, the new reissue procedure will permit a patent owner to enlarge the scope of the claims contained in the original patent, subject to the pre-AIA limitation that such a “broadening reissue” must be sought within the two-year window after the original patent issues.\(^{149}\)

Like other “deceptive intention” provisions, this one operated to preclude a patent owner from seeking a remedy even in circumstances where the best characterization of the role of the patent owner was as the victim, rather than the perpetrator, of the deception. With the removal of the “deceptive intention” provision, patent owners will be able to correct defects of any type in which reissue would otherwise have been proper, with the result that the public will have the benefit—as with supplemental examination—of a patent twice examined for patentability, the second time with the benefit of a supplemented examination record that ought to provide the public enhanced assurance that the patent merits respect.

Moreover, it should be possible, therefore, to make simultaneous use of both reissue and supplemental examination. Nothing in the AIA would appear to prevent the USPTO from taking coordinated action in situations where both reissue and supplemental examination were simultaneously being sought.\(^{150}\) Indeed, it is foreseeable that the Office, once a substantial new question of patentability has been found at the termination of the supplemental examination of a patent for which a reissue application is pending, would de facto

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\(^{149}\) See 35 U.S.C. § 251(d) (“No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent.”).

\(^{150}\) Congress clearly contemplated that consolidation of proceedings involving issued patents might be appropriate. In an inter partes review, Congress provided: “(d) MULTIPLE PROCEEDINGS.—Notwithstanding sections 135(a), 251, and 252, and chapter 30, during the pendency of an inter partes review, if another proceeding or matter involving the patent is before the Office, the Director may determine the manner in which the inter partes review or other proceeding or matter may proceed, including providing for stay, transfer, consolidation, or termination of any such matter or proceeding.” 35 U.S.C. § 315(d). To the identical effect is 35 U.S.C. § 325(d).
treat the reissue/reexamination as a single proceeding so that they could be concurrently conducted and concurrently concluded.

In a more general sense, the combination of assignee filing and removal of the “deceptive intention” provision should make reissue applications more readily available with fewer required formalities. In particular, the new reissue statute no longer limits application for reissue by assignees to situations where the claims of the patent are not broadened:

(c) APPLICABILITY OF THIS TITLE.—The provisions of this title relating to applications for patent shall be applicable to applications for reissue of a patent, except that application for reissue may be made and sworn to by the assignee of the entire interest if . . . the application for the original patent was filed by the assignee of the entire interest.151

This simplification of the filing of a reissue is consistent with the AIA provisions that limit this formality to a one-time authorization/affirmation by the inventor or each joint inventor.152 For patent owners, reissue will be available, therefore, provided only the two-year broadening limit is observed and the existing “error” requirement is met, under which the patent owner can contend that the patent is at least in part invalid or inoperative or the patent claims more or less than the patent owner had a right to claim.

Impact of Invalid Claims and the Patent Owner’s Right to Disclaim and Enforce

The final deletions of the “deceptive intention” provisions from the patent statute are of potentially monumental importance. The deletions occur in key provisions relating to the ability to enforce patents issued with one or more invalid claims. Under the AIA, the reformed provisions will now read as follows:

Whenever, without any deceptive intention, a claim of a patent is invalid the remaining claims shall not thereby be rendered invalid.153

Whenever, without deceptive intention, a claim of a patent is invalid, an action may be maintained for the infringement of a claim of the patent which may be valid.154

The first of these two provisions, at last, wholly overrules an ancient common law rule that a patent must be regarded as either wholly valid or wholly invalid. In reforming “disclaimer” provisions that had been in the patent law since 1837, thereby permitting the enforcement of a partially valid patent, Federico noted that the 1952 Patent Act introduced what he characterized as “radical changes” to accomplish this result, i.e., in part by removing a requirement relating to unreasonable neglect or delay in pursuit of a disclaimer.155 However, Federico noted en passant that Congress had maintained the bar

151. 35 U.S.C. § 251(c).
152. 35 U.S.C. § 115(g).

SEC. 54. AND BE IT FURTHER ENACTED, That whenever, through inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, a patentee has
against enforcement of a partially valid patent in the situation where “deceptive intention” was at play:

The theory of disclaimers under the old statute was based upon an implied common law rule that if a patent was invalid in part it was invalid in whole, that is, if any one claim of a patent was invalid the entire patent fell. In order to save the patent then, the disclaimer statute (first enacted in 1837) provided in effect that if the invalid part (claim) were disclaimed without unreasonable neglect or delay, suit could be maintained upon any other part (claim) which might be valid. This led to such confusion and uncertainty in the past in certain situations, that the new statute has simply eliminated the question. The common law rule that if a patent is invalid in part it is completely invalid has been abolished (except when deception or fraud is involved) by the opening sentence of section 253 . . . .\textsuperscript{156}

The “deceptive intention” limitation is now gone, both from the ancient provisions relating to “disclaimer” and the sister provision relating to enforcement of a patent where no disclaimer has been pursued. While these changes eliminate the possibility of automatic invalidity of remaining otherwise valid claims, they do not eliminate the possibility of unenforceability of those valid claims, i.e., in the specific case where the patent was granted with an invalid claim because deceptive intent was involved in the grant.

Congress, in barring the unenforceability of a patent once supplemental examination has corrected errors and omissions in the original examination and jettisoning all references to “deceptive intention” from the patent statute to afford additional remedial opportunities for patent applicants and patent owners to assure that their patents are limited to valid claims, has done nothing to limit the ability of the courts to hold a patent unenforceable for litigation misconduct, including misconduct that is carried forward into the courtroom based on conduct during patent procurement.

Indeed, nothing in the AIA should be regarded as inconsistent with Supreme Court precedent that has permitted misconduct-based pleadings of unenforceability in circumstances of fraud or other inequitable conduct by an unclean litigant, provided, of course, the conduct before the Office contaminated the litigation itself.\textsuperscript{157} Otherwise, Congress

\begin{itemize}
  \item claimed more than that of which he was the original or first inventor or discoverer, his patent shall be valid for all that part which is truly and justly his own, provided the same is a material or substantial part of the thing patented; and any such patentee . . . may, on payment of the duty required by law, make disclaimer of such parts of the thing patented as he shall not choose to claim or to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent. . . . But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing it.
\end{itemize}

\textsuperscript{16} Stat. 198 (July 8, 1870) (emphasis added).

\textsuperscript{156} Federico at 208 (emphasis added).

\textsuperscript{157} See Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co., 324 U.S. 806 (1945), which should represent the residuum of the unenforceability doctrine for fraud or other inequitable conduct. The Supreme Court based its finding of unenforceability in \textit{Precision Instrument} on the “equity court’s use of discretion in refusing to aid the unclean litigant.” \textit{Precision}, 324 U.S. at 815 (emphasis added). Thus, a threshold requirement is that there must be fraud perpetrated by the litigant itself, namely the plaintiff-patent owner committing or affirmatively
has directed that, irrespective of issues of possible “deceptive intent,” a partially valid patent is to be treated as an enforceable patent to the extent of its claims found to be valid.

OPTIMIZING THE OPPORTUNITIES AFFORDED BY THE AMERICA INVENTS ACT

With the patenting process now being a public process, with public participation in the patenting process now pervasive (both before a patent issues and once a patent is granted), and with publicly accessible information now becoming the touchstone for assessing a patent’s validity, the 21st century U.S. patent law will bear little relationship to its 19th and 20th century counterparts. Gone forever is a patent system grounded on bizarrely complex and opaque considerations that for nearly two centuries applied to determine if a patent might be valid.

The Office, thus, has the opportunity to optimize its operations by seizing all the advantages of simplicity that the new law affords. It can drop the pretense of examining for “best mode” compliance. It can pare to the bone formalities and make it simple for assignee-applicants to supply the inventor’s authorization/affirmation. It can open its procedures for correcting inventor naming to assure that proper ownership of patents is beyond question.

Perhaps most importantly, the Office can and should rethink from the ground up the duty of disclosure placed upon patent applicants, particularly with respect to information available to the public. While supplemental examination holds the opportunity of opening patent applications to a more candid and forthcoming dialogue between applicant and examiner, a proper reworking of the Office’s own rules on disclosure is needed to end the era in which the patent examination paradigm that best protects the applicant’s interests is over-loading the examiner and under-analyzing this information overload as to possible relevance to the patent examination.

How might this be done? The Office should consider six coordinated reforms:

- Imposing no incremental duty or responsibility on anyone appearing before the Office other than compliance with 18 U.S.C. § 1001(a).
- Assuming full responsibility for identifying and applying information available to the public that is material to the examination of any application for patent.
- Requiring that, should patent applicants wish to cite publicly available information to the Office, such information must meet requirements for particular significance and its relevance identified.

directing the fraudulent conduct. Moreover, the fraud must involve otherwise some form of litigation fraud, that is alleged fraud or other inequitable conduct likewise must play out in contentions or other conduct before the court. This was clearly the situation the Supreme Court found in Precision Instruments: “Automotive [the plaintiff-patent owner] knew of and suspected the perjury and failed to act so as to uproot it and destroy its effects. Instead, Automotive acted affirmatively to magnify and increase those effects. Such inequitable conduct impregnated Automotive’s entire cause of action and justified dismissal by resort to the unclean hands doctrine.” Id. at 819 (emphasis added).
• Providing that any individual’s duty or responsibility to supply information to the Office in a matter or proceeding is satisfied by providing the information to a registered practitioner retained to represent the individual in the matter or proceeding.

• Limiting any responsibility to provide to the Office non-public information solely to the extent required to reach an accurate determination of the issue before the Office.

• Stating by rule that information available to the public, but not cited by the Office, is to be deemed to have been considered by the Office but found to be of no relevance.

Such would be a pathway to far greater candor and cogency in patent prosecution, as well as improve the quality and completeness of patent examination. Just as Congress has taken bold steps to accomplish historic reforms to the patent laws, the Office is positioned to use the new law as a springboard for new and more creative approaches to further improve the patenting process.

CONCLUSIONS

The America Invents Act has made many significant changes to the patenting landscape in the United States. It is a giant step forward to a more transparent patent system, where a person skilled in the technology of a particular patent and knowledgeable in patent law can review a patent, reference only publicly accessible sources of information, and make a complete and accurate assessment of the validity of the patent. At its core, the AIA seeks a more objective patent law, where subjective issues of an inventor’s contemplations or a patent applicant’s intent bear no relevance to any issue of validity or enforceability of the patent. It is a patent law that, in many situations, may require no discovery of the inventor to determine if a claimed invention is patentable.

Congress took bold steps to reach these goals. The “loss of right to patent” provisions were all repealed. The “best mode” requirement was made a functional dead letter. All references to “deceptive intention” were stripped from the patent law. A new “supplemental examination” procedure was instituted to address any error or omission in the original examination of a patent and bar the defense of patent unenforceability once the procedure ran to completion. Finally and most dramatically, it concisely limited “prior art” on which the novelty and non-obviousness of a claimed invention was to be assessed. Nothing can qualify as prior art absent representing a prior public disclosure or an earlier patent filing naming another inventor that subsequently became publicly accessible—casting aside 175 years of a more complicated, subjective, and uncertain standard for patenting.

Thus, without question, transparent, objective, predictable and simple are four words that should come to describe the hallmarks of the new patent law arising from this historic legislative achievement. Those four words suggest a fifth that appears to be equally apt. Remarkable.