

**UNDERSTANDING THE AMERICA INVENTS ACT AND ITS  
IMPLICATIONS FOR PATENTING**

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

On September 16, 2011, Public Law 112-29,<sup>1</sup> the Leahy-Smith America Invents Act (“AIA”) became law. Congress acted “[t]o amend title 35, United States Code, to provide for patent reform.”<sup>2</sup> 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, patent applicants, patent owners, and 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 Congress’ mission to reform 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.<sup>3</sup> 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.

### A. *Problems with the Pre-1980 U.S. Patent System*

The old patenting process in the United States was a secret one, hidden from public view. From 1836 until the start of this century, determining the patentability of an invention consisted exclusively of a secret, non-public

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<sup>1</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

<sup>2</sup> *Id.*

<sup>3</sup> See generally Robert A. Armitage, *Reform of the Law on Interference: A New Role for an Ancient Institution in the Context of a First-to-File System*, 64 J. PAT. OFF. SOC’Y 663 (1982) (making the case for creating a comprehensive and coordinated set of reforms to U.S. patent law, centered on adoption of the first-inventor-to-file principle, mandatory publication of patent applications at 18 months from initial filing, and a patent term that provided patents would expire 20 years from the initial patent filing). This paper was based on the author’s work to secure support from the American Intellectual Property Law Association for these reforms and was initially drafted during his tenure as chair of its Patent Interference Committee. *Id.* at 663.

dialogue between the patent applicant and the patent examiner.<sup>4</sup> 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.<sup>5</sup>

In addition, prior to the AIA, critical information that might be necessary for a patent examiner to analyze to determine the patentability of an invention could include secret information, unavailable to the public.<sup>6</sup> 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 proactively provide to the patent examiner, at the outset of the patent examination process, sufficient information to assure that the examination could be accurate and complete in assessing patentability.<sup>7</sup>

Some of this essential information had an absurdly subjective character, encouraging second-guessing as to whether the inventor had been fully candid with the patent examiner.<sup>8</sup> The ultimate in such subjectivity was a requirement

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<sup>4</sup> See Patent Act of 1836, §§ 7-8, 5 Stat. 117, 119-21 (describing the patent examination process).

<sup>5</sup> Congress acted in 1999 to make pending patent applications open to public inspection. See Act of Nov. 29, 1999, Pub. L. No. 106-113, § 4001, 113 Stat. 1501, 1501A-552.

<sup>6</sup> See 35 U.S.C. §§ 102(b) and (g) (2006), under which the inventor's secret commercial uses (even offers for sale) and secret inventions, made by other inventors not yet made public, can bar the ability to secure a valid patent. See, e.g., *Evans Cooling Systems, Inc. v. General Motors Corp.*, 125 F.3d 1448, 1454 (Fed. Cir. 1997) (holding that a secret contract between a third party who misappropriated the invention and the inventor to sell one year before filing patent application triggered the "on-sale bar" and thus the patent was anticipated, and as such, invalid).

<sup>7</sup> See 37 C.F.R. §§ 1.97-98 (2011), providing for "information disclosure statements" to be submitted by patent applicants, and 37 C.F.R. § 1.56, otherwise setting out an affirmative requirement to provide information "material" to the patent examination.

<sup>8</sup> See Robert A. Armitage, *Leahy-Smith America Invents Act: Will It Be The Nation's Most Significant Patent Act Since 1790?*, LEGAL BACKGROUNDER (Sept. 23, 2011), [http://www.wlf.org/Upload/legalstudies/legalbackgrounder/09-23-11Armitage\\_LegalBackgrounder.pdf](http://www.wlf.org/Upload/legalstudies/legalbackgrounder/09-23-11Armitage_LegalBackgrounder.pdf) (discussing "best mode" as an example

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.<sup>9</sup>

The validity of any issued patent could, in addition, 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.<sup>10</sup>

For members of the public, another price of the pervasive patent secrecy was the absence of any meaningful opportunity for a member of the public to participate in the decision of the United States Patent and Trademark Office (“USPTO”) to issue a U.S. patent. Moreover, except in recent decades, even if a patent issued by the USPTO was manifestly invalid, there was no post-issuance opportunity to contest a patent examiner’s clearly incorrect determination of patentability.<sup>11</sup>

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of a subjective standard that historically has been considered in assessing whether a patent should be granted).

<sup>9</sup> Compare Patent Act of 1952, Pub. L. No. 593, § 112, 66 Stat. 792, 798 (“The specification shall . . . set forth the best mode contemplated by the inventor of carrying out his invention.”), with Patent Act of 1870, ch. 230, § 26, 16 Stat. 198, 201 (providing “in 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.*” (emphasis added)). Prior to 1870, there was no requirement whatsoever in the patent laws relating to a “best mode.” From this quite limited requirement in 1870, on its face intended to allow a new machine to be distinguished in its operation from other inventions, Congress appears to have derived the “best mode” requirement in the Patent Act of 1952, which remained a requirement for a valid patent until the AIA. See Patent Act of 1952 § 112.

<sup>10</sup> See, e.g., *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987) (“Section 102(g) . . . is one type of ‘anticipation,’ i.e., prior invention by another of the same invention.”).

<sup>11</sup> Ex parte patent reexamination, which allowed any person at any time after patent issuance to request patent claims be canceled based on patents and printed publications was introduced in an amendment to the Patent Act in

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*.<sup>12</sup> If a patent applicant were eager to issue a patent, it was possible 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.<sup>13</sup>

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 would need to wait for the issued patent to eventually expire. Not uncommon were patents that expired 30 or 40 or even 50 years after the invention was made and the patent for it initially sought.<sup>14</sup>

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

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1980. See Act of Dec. 12, 1980, Pub. L. No. 96-517, §§ 301 *et seq.*, 94 Stat. 3015, 3015.

<sup>12</sup> As part of the transition to the new filing-based patent term, Congress provided a best-of-both-worlds transitional provision that extended the 17-year patent terms from issuance for previously issued patents to not less than 20-years from the original patent filing date. See U.S. DEP'T OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE § 2701 (8th ed. 2001) (Latest Revision, Jul. 2010) [hereinafter MPEP] ("All patents (other than design patents) that were in force on June 8, 1995, or that issued on an application that was filed before June 8, 1995, have a term that is the greater of the 'twenty-year term' or seventeen years from the patent grant.").

<sup>13</sup> Under the Patent Act of 1952, a patent expired seventeen years from the date of issue, thus if a patent issued within a year of filing, the expiration of the patent would be less than 18 years from initial patent filing. See *generally* Patent Act of 1952 § 154 ("Every patent shall . . . grant to the patentee . . . for the term of seventeen years . . .").

<sup>14</sup> See, e.g., *In re Hogan*, 559 F.2d 595, 597 (C.C.P.A. 1977) (finding the patentability of the patent application in dispute depended on the earliest priority date in 1953, thus the patent once issued would expire 17 years from the issue date, which was after 1977—more than 24 years after the date of original filing date).

was entirely valid, it could be nonetheless declared unenforceable due to a supposed fraud arising from the patent applicant's conduct before the USPTO.

### B. *Rationales Behind the Pre-1980 U.S. Patent System*

The criticality of non-public information in the hands of the patent applicant—and the abundant sources of possible mischief arising from withheld information or falsified information—led the USPTO to impose an affirmative duty to disclose information to patent examiners.<sup>15</sup> The courts contemporaneously issued holdings indicating that the patent applicant bore an *uncompromising duty* of candor and good faith.<sup>16</sup> An error or omission in the communications from patent applicant to patent examiner could result in a statutorily valid patent that was permanently unenforceable because of the patent procurement misstep.

As an aggregated result of these features, the U.S. patent system operated non-transparently, with great subjectivity, and with distressing unpredictability. It could only be characterized, especially in comparison to the most advanced foreign counterparts, as a patent system of mindless complexity. Unpredictable patent life, unpredictable sources of invalidity, and unpredictable enforceability could trump patent exclusivity—the primary incentive for making the investments necessary to bring patented innovations to commercialization.

With the AIA, Congress completed a statutory patent revolution, 30 years in the making. Each of the foregoing foundational aspects of U.S. patent laws has now been turned on its head.

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<sup>15</sup> See generally 57 Fed. Reg. 2007, 2034 (Jan. 17, 1992) (codified at 37 C.F.R. § 1.56 (2011)).

<sup>16</sup> See *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 818 (1944) (“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.”) (internal citations omitted).

The much-needed reforms to the patent system commenced, timidly at first, with the Patent Act of 1980,<sup>17</sup> creating a new “*ex parte* reexamination” procedure. It afforded members of the public a highly limited opportunity to raise an issue of patentability before the USPTO in connection with an issued U.S. patent.<sup>18</sup> However, the limited nature of the public involvement in this *ex parte* proceeding has meant that, even today, it is of little use to members of the public concerned over an apparently invalid patent.

The next significant reforms to U.S. patent law arrived with the Uruguay Round Agreements Act of 1994 (“URAA of 1994”),<sup>19</sup> and the American Inventors Protection Act of 1999 (“AIPA of 1999”).<sup>20</sup> Together, these two Acts made three significant improvements to the operation of the U.S. patent system by: (1) requiring publication of most pending patent applications at 18 months after the initial patent filing;<sup>21</sup> (2) limiting most issued patents to a term expiring 20 years after the formal (nonprovisional) patent filing in the United States;<sup>22</sup> and (3) broadening the opportunity to challenge an issued U.S. patent through a new *inter partes* mechanism—albeit a mechanism still highly limited in its reach (i.e., to very narrow patentability issues arising from patents and printed publications).

Only with the enactment of the AIA did Congress finally abandon altogether relative timidity in its approach to patent reform. Through a 130-page bill<sup>23</sup> and over a six-year legislative process,<sup>24</sup> Congress transformed 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 in the principles that govern patentability and patent validity.

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<sup>17</sup> Act of Dec. 12, 1980, Pub. L. No. 96-517, 94 Stat. 3015.

<sup>18</sup> *Id.* § 302.

<sup>19</sup> Uruguay Round Agreements Act, Pub. L. No. 103-465, § 101, 108 Stat. 4809 (1994).

<sup>20</sup> Act of Nov. 29, 1999, Pub. L. No. 106-113, § 4001, 113 Stat. 1501, 1501A-552.

<sup>21</sup> *Id.* § 4502.

<sup>22</sup> Uruguay Round Agreements Act § 532.

<sup>23</sup> *See* America Invents Act, H.R. 1249, 112th Cong. (2011).

<sup>24</sup> *See* H.R. 2795, 109th Cong. (2005) (originally introduced on June 5, 2005, this bill began the active congressional consideration of the key patent reforms that ultimately became part of the Leahy-Smith America Invents Act).

### C. *Changes in the U.S. Patent System Resulting From the AIA*

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.<sup>25</sup> After a patent has been issued, members of the public will have the opportunity to return to the USPTO and challenge a patent on *any validity issue that could be raised as a defense to patent infringement in the courts*.<sup>26</sup> Indeed, this new opportunity to challenge patent validity back in the USPTO will be conducted before technically and legally trained administrative patent judges and must run to completion within a year (at most 18 months) from commencement.<sup>27</sup> A right to appeal to the Court of Appeals for the Federal Circuit assures that these proceedings can involve a full vetting of patentability issues.<sup>28</sup>

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 patents and validity of patents once issued. Simply, 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 what are essentially questions of law, with limited factual underpinnings needed to make those essentially 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 has changed in fundamental ways.<sup>29</sup> The constituents of the “prior art” are now assessed on the basis of disclosed subject matter that qualifies as either *available to*

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<sup>25</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 8, § 122, 125 Stat. 315-16 (2011) (amending § 122 to add a new subsection (e)).

<sup>26</sup> *Id.* sec. 6, § 321.

<sup>27</sup> *Id.* sec. 6, § 326.

<sup>28</sup> *See generally id.* sec. 6 (amending title 35, United States Code, to add a new Chapter 32 (35 U.S.C. §§ 321-329) providing a new post-grant review proceeding).

<sup>29</sup> *Id.* sec. 8, § 102(a).

the public prior to the inventor's patent filing or having been described in an earlier-filed patent application that subsequently became available to the public.<sup>30</sup>

This new, transparent definition for what qualifies as "prior art," which is then used to determine the novelty and non-obviousness of a claimed invention,<sup>31</sup> sits alongside the three remaining core legal issues of patent validity: (1) 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;<sup>32</sup> (2) are the claims of the patent *sufficiently definite* to reasonably differentiate the subject matter being patented from subject matter that is not;<sup>33</sup> and (3) 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?<sup>34</sup>

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<sup>30</sup> *Id.* sec. 3, § 102(a)-(b) (defining scope and content of prior art through an overarching requirement for disclosures to be publically available to qualify as prior art).

<sup>31</sup> An established patent law rubric is that "anticipation is the epitome of obviousness." *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983).

<sup>32</sup> *See* 35 U.S.C. § 112 (2006). The section 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 *de novo*, which may involve subsidiary questions of fact reviewed for clear error." *In re Epstein*, 32 F.3d 1559, 1568 (Fed. Cir. 1994). The "written description" requirement, 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 Ellsworth v. Moore*, 61 U.S.P.Q.2d 1499, 1506 (B.P.A.I. Nov. 20, 2001) (noting "conception" is an issue of law).

<sup>33</sup> *See* 35 U.S.C. § 112.

<sup>34</sup> *Id.* §§ 101, 112. The section 101 requirement for subject-matter eligibility is a question of law. *See 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

Given that further reforms under the AIA mean that the naming of an 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 should have no impact on a patent’s validity in any forum where the validity of the patent is being contested.<sup>35</sup> 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.<sup>36</sup>

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 the inventor’s oath or declaration to nothing more than a one-time obligation to make two required statements,<sup>37</sup> which the patent applicant can simply incorporate into an inventor’s assignment of the invention, but a new statutory “savings clause” now expressly permits correction of any such oath at any time.<sup>38</sup> 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.<sup>39</sup> This insulation extended to prohibit consideration of the “best mode” issue in any post-issuance proceeding before the USPTO.<sup>40</sup>

A final effort at curbing unenforceability and opening remedial measures in the patent statute is found in Congress’ decision to eliminate all provisions containing restrictions or limitations based upon “deceptive intention.”<sup>41</sup> Indeed,

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that “determination of this question may require findings of underlying facts specific to the particular subject matter and its mode of claiming”).

<sup>35</sup> See *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352 (Fed. Cir. 1998) (finding “[i]nventorship is a question of law, applied to relevant facts”).

<sup>36</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 12, § 257(a), 125 Stat. 284, 325 (2011).

<sup>37</sup> *Id.* sec. 4, § 115(b).

<sup>38</sup> *Id.* sec. 4, § 115(h)(3).

<sup>39</sup> *Id.* sec. 15.

<sup>40</sup> *Id.*

<sup>41</sup> See *id.* sec. 20.

for the first time since the 1836 Patent Act, the words “deceptive intention” appear nowhere in the U.S. patent code.<sup>42</sup>

In the aggregate, therefore, it is virtually unimaginable that the USPTO, 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.<sup>43</sup> The patent owner is required under this provision to seek (and conclude) the supplemental examination procedure before attempting to enforce the patent.<sup>44</sup>

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.<sup>45</sup> In reforming the patent law so that *publicly available* information alone drives most patentability determinations and the patenting process itself is largely open to the public—in that the public has a right to participate in the patenting process both before and after the patent has issued—Congress intended to place on an equal footing the *equitable conduct expectations* of both patent applicants and public participants in the patenting process.<sup>46</sup>

Whatever the role of an individual appearing in proceedings before the USPTO, the participants ought to be subject to the same conduct rules and bear the same consequences for misconduct. In a broader sense, the expectations for

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<sup>42</sup> Compare 35 U.S.C. §§ 116, 251, 253, 256, 288 (2006) (all including the phrase “without deceptive intention”), with Leahy-Smith America Invents Act, sec. 20 (striking “deceptive intention” from listed sections in Title 35).

<sup>43</sup> Leahy-Smith America Invents Act, sec. 12, § 257.

<sup>44</sup> *Id.* sec. 12, § 257(c)(2)(B).

<sup>45</sup> The most comprehensive understanding of congressional intent in enacting the key provisions of the AIA that are treated in this article is found in Joseph D. Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435 (forthcoming March 2012). Nothing in the present analysis departs, knowingly at least, from the guide provided therein.

<sup>46</sup> *See id.*

proper conduct before the USPTO in a public proceeding, largely considering the import of information available to the public, should be no different from conduct expectations of participants in all other proceedings before any other administrative agency.

**D. *Consequences of the Changes in the U.S. Patent System Resulting From the AIA***

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 Article attempts to set out how these changes to the patent statute can be best understood and best applied by those affected by the patenting process.

**II. THE VOCABULARY OF THE NEW PATENT LAW: UNDERSTANDING THE NEW NOMENCLATURE**

Congress placed important new definitions in the patent statute. Newly defined terms are used in the most critical passages of the revised code, setting forth the substantive patent law.<sup>47</sup> 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

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<sup>47</sup> 35 U.S.C. § 100 sets out explicit statutory definitions. However, other provisions of the patent statute now contain similarly explicit definitions. *See, e.g.*, Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 10, § 123, 125 Stat. 284, 318 (2011).

claimed invention—are explicitly defined in the patent statute.<sup>48</sup> Those new definitions appear with a new precision in § 100.<sup>49</sup>

The term “claimed invention” was first introduced into the patent statute in the pre-AIA § 103(c),<sup>50</sup> 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.”<sup>51</sup> Hence, *each* of the claims in a patent or an application for patent constitutes its own “claimed invention” with respect to the bounds of the *subject matter* encompassed therein.

The newly defined term is then employed to define a second term, the “effective filing date” for a claimed invention.<sup>52</sup> 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*.<sup>53</sup> 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 patentability. 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.<sup>54</sup> Under this 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

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<sup>48</sup> *Id.* sec. 3, §§ 100(f), (i), (j).

<sup>49</sup> For convenience, all statutory references in the text, not otherwise attributed, constitute references to title 35, United States Code.

<sup>50</sup> Patent Law Amendments Act of 1984, Pub. L. No. 98–622, § 103, 98 Stat. 3383, 3384.

<sup>51</sup> Leahy-Smith American Invents Act, sec. 3, § 100(j) (emphasis added).

<sup>52</sup> *Id.* sec. 3, § 100(i)(1).

<sup>53</sup> 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.

<sup>54</sup> Leahy-Smith America Invents Act, sec. 3, § 102(a)(2) (emphasis added).

application.<sup>55</sup> 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.<sup>56</sup>

The only circumstance in which this default date will not be the effective filing date is when the claimed invention in the patent or application for patent is *entitled to priority or benefit* of an earlier patent filing.<sup>57</sup> 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.<sup>58</sup> 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.<sup>59</sup>

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.<sup>60</sup> Thus, understanding the term “effective filing date” becomes a critical aspect of the AIA’s transition provisions<sup>61</sup> under which the new provisions defining prior art and novelty

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<sup>55</sup> *Id.* sec. 3, § 100(i)(1).

<sup>56</sup> *Id.*

<sup>57</sup> *Id.* sec. 3, § 100(i)(1)(B).

<sup>58</sup> *See id.*; *see also* 35 U.S.C. § 365 (2006).

<sup>59</sup> 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 the future 35 U.S.C. § 100(h)(2), “[t]he 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.” Leahy-Smith America Invents Act, sec. 3.

<sup>60</sup> *Id.* sec. 3, § 102(a)(2).

<sup>61</sup> The transition provisions of the AIA reference the term “effective filing date” for a *claim to a claimed invention* in each of paragraphs (1) and (2):

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(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—

(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.

under the AIA (i.e., new § 102) replace the corresponding provisions of pre-AIA law (i.e., pre-AIA § 102).<sup>62</sup>

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.<sup>63</sup> Similarly, a “joint inventor” is defined as one of the members of the inventive entity for a joint invention.<sup>64</sup> This provides a higher degree of readability and precision in the new law by allowing either a 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.

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<sup>62</sup> The transition provisions 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 March 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 on or 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 March 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 March 16, 2013 transition date divide.

<sup>63</sup> Leahy-Smith America Invents Act, sec. 3, § 100(f).

<sup>64</sup> As amended, §§ 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.” *Id.* sec. 3, §§ 100(f)-(g).

Elsewhere in the new statute, other terms that are essential to understanding the new patent law are given explicit, but more contextual, definitions. Among the commonplace patent terms 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.<sup>65</sup> This term now has a definition appearing in new § 102(a).<sup>66</sup> 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.<sup>67</sup>

A new term in patent parlance, likewise fundamental to the understanding of the AIA, is provided in the new § 102(d), “PATENTS AND PUBLISHED APPLICATIONS EFFECTIVE AS PRIOR ART.”<sup>68</sup> New § 102(d) contains a contextual definition of the term “effectively filed.”<sup>69</sup> This new term, as the title of the subsection indicates, provides that a patent filing can represent prior art as of the date when *filed*, not just the date when *published or patented*. It fixes the date on which *subject matter* that is described in certain publicly available patent filings can qualify as prior art, including by taking into account claims for the priority or benefit of earlier patent filings.<sup>70</sup>

The definition for “effectively filed” differs from the similar term “effective filing date” for a claimed invention—and does so in subtle but important respects in the priority/benefit context that are discussed later.<sup>71</sup> Thus, understanding the definitional differences between *effective filing date* and *effectively filed* are critical to appreciating the elegant simplicity of the phrase in the new statute contained in new § 102(a)(2), which speaks of subject matter in

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<sup>65</sup> *Id.* sec. 3, § 102(a).

<sup>66</sup> *Id.*

<sup>67</sup> *Id.* sec. 3, § 102.

<sup>68</sup> *Id.* sec. 3, § 102(d)

<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

<sup>71</sup> As a preview, the term “effectively filed” does not employ the two-part priority/benefit test referenced above for the term “effective filing date” but uses instead only the first of the two parts. As set out in § 102(d)(2), where there is *entitlement to claim* priority or benefit of an earlier-filed application for patent (even if there is no entitlement in fact to such priority/benefit), then the common subject matter described in both the earlier-filed and later-filed applications is effectively filed as of the earlier patent filing date.

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*.<sup>72</sup>

Three other nomenclature-related issues are worth noting as a preliminary matter because they may assist the careful reader of the new statute in appreciating its full import:<sup>73</sup>

- The patent “applicant” under pre-AIA law was, absent exceptional circumstances, the inventor of the subject matter claimed in the patent application.<sup>74</sup> Under the AIA, the patent applicant need not be the inventor—and, most typically, will not be the inventor.<sup>75</sup> 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.<sup>76</sup> The possibility for an assignee-as-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)),<sup>77</sup> the AIA provisions now reference such applications as “*naming another inventor*”—affording greater precision and clarity.<sup>78</sup> 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.

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<sup>72</sup> Leahy-Smith America Invents Act, sec. 3, § 102(a).

<sup>73</sup> In addition to these three items, new 35 U.S.C. § 100(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). Leahy-Smith America Invents Act, sec. 3, § 100(h); *see also* 35 U.S.C. § 103(c)(3) (2006). Other than the new section number, the substance of the definition was not modified under the AIA.

<sup>74</sup> 35 U.S.C. § 102(a).

<sup>75</sup> Leahy-Smith America Invents Act, sec. 3, § 100(f).

<sup>76</sup> *Id.*

<sup>77</sup> 35 U.S.C. § 102(e).

<sup>78</sup> Leahy-Smith America Invents Act, sec. 3, § 102(a)(2).

- The term “available to the public,” although long used in several places in the pre-AIA patent statute,<sup>79</sup> now plays a new (and central) role in the new patent statute. The term appears in the new definition of “prior art.”<sup>80</sup> It establishes an overarching requirement for availability to the public before any subject matter (other than that in a patent filing naming another inventor) can qualify as prior art to a claimed invention.<sup>81</sup> 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.
- 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,<sup>82</sup> including through the operation of the inventor’s “grace period.”<sup>83</sup> 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.<sup>84</sup> Similarly, the terms “describes” and “description” are now used to specifically reference a *disclosure*

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<sup>79</sup> Under the AIA, this term now appears in 35 U.S.C. § 102(a)(1). *Id.* sec. 3, § 102(a)(1). Under pre-AIA law, it appears in several sections. Specifically, under § 9, the USPTO can provide copies of “records *available . . . to the public*,” under § 122 the USPTO 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*.” 35 U.S.C. §§ 9, 122, and 201(f) (emphasis added). Additionally, § 297(d)(1) requires that certain records of complaints be “publicly available.” *Id.* § 297(d)(1).

<sup>80</sup> Leahy-Smith America Invents Act, sec. 3, § 102(a).

<sup>81</sup> *Id.*

<sup>82</sup> *Id.* sec. 3, § 102.

<sup>83</sup> *See id.* sec. 11, § 41(a)(8)(b)(2).

<sup>84</sup> *Id.* sec. 3, § 103.

appearing in a documentary form, e.g., a patent or other form of printed publication.<sup>85</sup>

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

### III. 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

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<sup>85</sup> See *id.* sec. 3, § 102(a)(1), “described in a printed publication,” § 102(a)(2), “described in a patent,” and § 102(d), “described in a patent or application” and “such application *describes* the subject matter.”

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*).

The use of prior art is subject to exceptions protecting inventors, their co-workers, and other collaborators from having certain types 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 new law 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 must be discussed to 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.<sup>86</sup> Thus, the best 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.

**A. *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 in the 1952 Patent Act.<sup>87</sup> The Patent Law Amendments Acts of 1984 (PLAA of 1984) amended pre-AIA § 103 by adding an exception to subject matter that would constitute "prior art" to be used in § 103.<sup>88</sup> The PLAA provision was placed into § 103 and, thus, applied only to § 103 non-obviousness determinations, not § 102 novelty assessments.<sup>89</sup>

Subsequently, the Biotechnology Process Patent Act of 1995<sup>90</sup> further amended § 103. The Act was intended to guarantee non-obviousness for certain process inventions.<sup>91</sup> 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.<sup>92</sup> Finally, the Cooperative Research and Technology Enhancement (CREATE) Act of 2004<sup>93</sup> completed pre-AIA § 103. It sought to extend "co-worker" benefits of the AIPA to research collaborators by

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<sup>86</sup> *See id.* sec. 3, § 103.

<sup>87</sup> Patent Act of 1952, Pub. L. No. 593, § 103, 66 Stat. 792, 798.

<sup>88</sup> Patent Law Amendments Act of 1984, Pub. L. No. 98-622, § 103, 98 Stat. 3383, 3384.

<sup>89</sup> *Id.*

<sup>90</sup> Biotechnology Process Patent Act of 1995, Pub. L. No. 104-41, § 1, 109 Stat. 351, 351.

<sup>91</sup> *Id.*

<sup>92</sup> Act of Nov. 29, 1999, Pub. L. No. 106-113, § 4807, 113 Stat. 1501, 1501A-591. In the context of this Article, the term "co-worker" is used to describe another individual named as the inventor or a joint inventor in an earlier patent filing that would qualify as prior art absent some exception, and that can be excepted from the prior art because of ownership by, or obligations of assignment to, a common entity. Such individuals may not in fact be—and need not be—true co-workers in any other sense or context.

<sup>93</sup> Cooperative Research and Technology Enhancement (CREATE) Act of 2004, Pub. L. No. 108-453, sec. 2, § 103(c)(2), 118 Stat. 3596.

treating patent filings under joint research agreements as though they had been commonly assigned.<sup>94</sup>

The aggregate result of the pre-AIA amendments to § 103 was that the original 1952 codification of the non-obviousness requirement became re-designated as § 103(a),<sup>95</sup> the biotechnology provisions became a new § 103(b),<sup>96</sup>

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<sup>94</sup> *Id.*

<sup>95</sup> *See* 35 U.S.C. § 103(a) (2006).

<sup>96</sup> 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 multi-celled organism to –

(i) express an exogenous nucleotide sequence,

and the AIPA/CREATE Act changes followed as a new § 103(c).<sup>97</sup> The AIA now takes the pre-AIA § 103 provisions and expands the co-worker prior art and the

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(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).

*Id.* § 103(b)

<sup>97</sup> 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.

(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.

collaboration prior art exclusions of the pre-AIA law in numerous respects.<sup>98</sup> As just one example, under the pre-AIA law, these exclusions only applied to non-obviousness,<sup>99</sup> but now the exclusions include novelty issues.<sup>100</sup>

The AIA modifies § 103(a), the core requirement of non-obviousness from the 1952 Patent Act, to once again create a single undesignated paragraph.<sup>101</sup> The undesignated paragraph is all that will remain in the AIA's new § 103, thereby largely restoring the original 1952 elegance of this provision of the patent code.

The differences between the pre-AIA § 103(a) and the new undesignated paragraph appear below:

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(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.

*Id.* § 103(c).

<sup>98</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 3, § 102, 125 Stat. 284, 285-86 (2011).

<sup>99</sup> 35 U.S.C. § 103(c) (2006).

<sup>100</sup> Leahy-Smith America Invents Act, sec. 3, § 102(b).

<sup>101</sup> *Id.* sec. 3, § 103.

**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.<sup>102</sup>

**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 negated by the manner in which the invention was made.<sup>103</sup>

Comparing the AIA and pre-AIA provisions side-by-side reveals the following subtle, but important, differences introduced in the new law:

- Some terminology in new § 103 has changed from its pre-AIA counterpart so that the new section is able to utilize newly defined terms. The defined terms now appearing in § 103 include “*claimed invention*” and “*effective filing date.*”<sup>104</sup> In addition, the term “*prior art*” appearing in new § 103 is now defined in § 102(a) of the statute.<sup>105</sup> Indeed, the new heading of § 102(a) includes the term “*prior art*” and clarifies that only disclosures under § 102(a) can qualify as prior art to a claimed invention.<sup>106</sup>

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<sup>102</sup> *Id.* sec. 3, § 103 (emphasis added).

<sup>103</sup> 35 U.S.C. § 103(a) (emphasis added).

<sup>104</sup> Leahy-Smith America Invents Act, sec. 3, § 103.

<sup>105</sup> *Id.* sec. 3, § 102(a).

<sup>106</sup> *Id.*

- The pre-AIA § 103(a) reference to the “time the invention was made” has disappeared from the new § 103.<sup>107</sup> Thus, the date of invention has no relevance to the determination of obviousness. Obviousness under the AIA is determined as of the effective filing date for the claimed invention.<sup>108</sup>
- Although of no conceivable substantive significance, a more formal and standard phrase “notwithstanding that”<sup>109</sup> replaces the more colloquial word “though.”<sup>110</sup>
- Finally, the pre-AIA terminology found in § 103 for characterizing the test for novelty under § 102, “identically disclosed *or described*,”<sup>111</sup> has now been truncated to “identically disclosed.”<sup>112</sup> There is no longer any reference to subject matter that has been “described” as destroying § 102 novelty for a claimed invention.<sup>113</sup> This change necessarily indicates that the term “disclosed” is now a generic one, for which being “described” is merely one species of being “disclosed.” Congress did not intend that “descriptions” would no longer constitute prior art, but instead determined that a single term, “disclosed,” could encompass any means or method of disclosure for subject matter qualifying as prior art under § 102(a)’s definition for the term.

Combining the new § 103 with the subsequent reference to the new § 102’s definition of “prior art” is an indication from Congress that *all forms of prior art* arise from subject matter *disclosures*. This means that a “disclosure” is now the sole route by which subject matter qualifies as prior art under the new § 102(a). As discussed later, the new § 102(b) dictates what *disclosures* and *subject matter disclosed* (or publicly disclosed) can be disqualified as prior art under the AIA’s newly crafted statutory exceptions.<sup>114</sup> Hence, an appreciation for this new § 103 subtlety is essential to a clear understanding of the new § 102, which (as

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<sup>107</sup> *Id.* sec. 3, § 103.

<sup>108</sup> *Id.* sec. 3, § 100(i)(1).

<sup>109</sup> *Id.* sec. 3, § 103.

<sup>110</sup> 35 U.S.C. § 103(a).

<sup>111</sup> 35 U.S.C. § 103(a) (emphasis added).

<sup>112</sup> Leahy-Smith America Invents Act, sec. 3, § 103.

<sup>113</sup> *Id.*

<sup>114</sup> *See infra* Part III.C.

just noted) makes extensive use of the terms “disclosed,” “disclosure,” “publicly disclosed,” and “subject matter disclosed.”<sup>115</sup> The meaning of each of these terms must be consistent with—indeed, dictated by—the use of the term “disclosed” in § 103.

Therefore, the new § 103 does not change the legal standard for non-obviousness except for the changes to what is 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 the new § 102, it is necessary to gain a perfect understanding of the new-to-the-statute term “effectively filed.”<sup>116</sup> As outlined earlier, this understanding requires an appreciation of the differences between two seemingly similar terms—“effective filing date” and “effectively filed.” As will become clear below, the new statute does not define or apply either of these terms in a way that modifies well-established, commonly understood, and consistently applied principles of pre-AIA patent law.

**B. *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 patent filing can qualify as prior art as of when the subject matter was “effectively filed.”<sup>117</sup> 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.<sup>118</sup>

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):

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<sup>115</sup> Leahy-Smith America Invents Act, sec. 3, § 102.

<sup>116</sup> *Id.* sec. 3, § 102(a)(2).

<sup>117</sup> *Id.* sec. 3, § 102.

<sup>118</sup> *Id.*

## 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).<sup>119</sup>

## 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*.<sup>120</sup>

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 filing date for a related patent application can override this default date. This is possible in the situation where a *claim* (that is, an assertion) has been made in a patent filing to a right of priority or benefit

<sup>119</sup> *Id.* sec. 3, § 100(i)(1) (emphasis added).

<sup>120</sup> *Id.* sec. 3, § 102(d) (emphasis added).

of an earlier patent filing, and *an entitlement to claim* (that is, *an entitlement to assert*) that priority or benefit exists.<sup>121</sup>

- The two definitions, as mentioned earlier, 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 (i.e., enabling) 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, related patent filing.
- In order for subject matter in an earlier patent filing to qualify as being effectively filed based on its earlier patent filing date, the only requirements are that a claim for priority/benefit has been made and entitlement to claim (that is, an entitlement to assert) priority/benefit exists.<sup>122</sup> The further requirement for *entitlement in fact* to priority/benefit does not appear in the new § 102(d) definition.<sup>123</sup> While not explicitly set out in the new statute, entitlement merely *to claim* or assert priority or benefit demands that *certain of the requirements* set out in §§ 119 or 120, as appropriate, are met, but not all. One requirement is clearly inapplicable because the term “effectively filed” (unlike the term “effective filing date”) is defined solely in terms of *subject matter* in a patent-filing being “effectively filed,” and not in terms of a *claimed invention* being “effectively filed.” This means, therefore, that the specific §§ 119 and 120 requirement applying solely to *claimed inventions* can have no applicability to the determination of what subject matter has been “effectively filed” in an earlier patent filing. Hence, an adequate (i.e.,

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<sup>121</sup> 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, in which a *claim* for priority or benefit has been made, in fact *entitled to claim* such priority or benefit? Is the application or patent, in which *entitlement to claim* priority or benefit has been established, *in fact entitled to priority or benefit* with respect to one or more claimed inventions in that application or patent?

<sup>122</sup> Leahy-Smith America Invents Act, sec. 3, § 102(d).

<sup>123</sup> *See id.*

enabling) disclosure is not required in an earlier patent filing in order for the “entitled to claim” standard in the “effectively filed” definition to be met with respect to the description contained in the earlier patent filing.<sup>124</sup> This, of course, is not a change in the substance of the pre-AIA patent law. The patent law has long provided that subject matter, once described in any manner, may qualify as prior art for whatever it teaches a person of ordinary skill in the art. The definition for “effectively filed” was carefully drafted, therefore, not to change the patent law in this respect.

- 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 an actual claim to the claimed invention.<sup>125</sup> 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).<sup>126</sup> Therefore, the sole requirement for an actual claim or claimed invention to be present exists only with respect to the application or patent whose patentability or validity is being assessed.<sup>127</sup>
- The sources for being able to make a claim of 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,<sup>128</sup> U.S. nonprovisional patent filings,<sup>129</sup> foreign national (or regional) priority

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<sup>124</sup> *Id.*

<sup>125</sup> *Id.* sec. 3, § 102(d).

<sup>126</sup> Compare *id.* sec. 3, § 100(i)(1)(A), with sec. 3, § 100(i)(1)(B).

<sup>127</sup> The intent of this Article 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 patent filing must contain a claim to the claimed invention for which priority or benefit is sought would be a marked departure from existing law, lack consistency with the clear intent of Congress, and lack any conceivable support in the new statute as drafted.

<sup>128</sup> 35 U.S.C. § 119(e)(1) (2006).

<sup>129</sup> *Id.* § 120.

patent filings,<sup>130</sup> and international patent filings under the Patent Cooperation Treaty.<sup>131</sup>

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, in the earlier patent filing, both identifying the embodiments of the claimed invention and enabling them to be put to a specific, substantial and practical use.<sup>132</sup>

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.<sup>133</sup> 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.<sup>134</sup> 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.<sup>135</sup>

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

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<sup>130</sup> *Id.* § 119(a).

<sup>131</sup> *Id.* § 365.

<sup>132</sup> *Id.* § 120.

<sup>133</sup> *Id.*

<sup>134</sup> *Id.*

<sup>135</sup> *Id.* § 119.

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 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.<sup>136</sup>
- 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.<sup>137</sup> 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 the earliest such filing that contains the *same description* that is found in the published application.<sup>138</sup> The *commonality of description* with that found in the earlier application, for which the claim of priority or benefit was a legitimate one, is all that is needed for the subject matter to have been effectively filed as of the date of such earlier patent filing.<sup>139</sup> In this sense, a *commonality of description* test replaces the *sufficiency of disclosure* test that

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<sup>136</sup> *Id.* §§ 111(a), 119 and 120.

<sup>137</sup> 35 U.S.C. § 111(a).

<sup>138</sup> *Id.* §§ 119, 120.

<sup>139</sup> 35 U.S.C. §§ 119, 120.

applies to a specifically claimed invention to determine its effective filing date.

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 its 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 Congress the opportunity to provide both a crisp codification and dispositive legislative history.

The potentially problematic precedent was the Federal Circuit’s 1981 decision in *In re Wertheim* (“*Wertheim*”).<sup>140</sup> 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.<sup>141</sup> 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 must be enabled before the effective filing date of the application or patent under review, but this enablement need not be disclosed

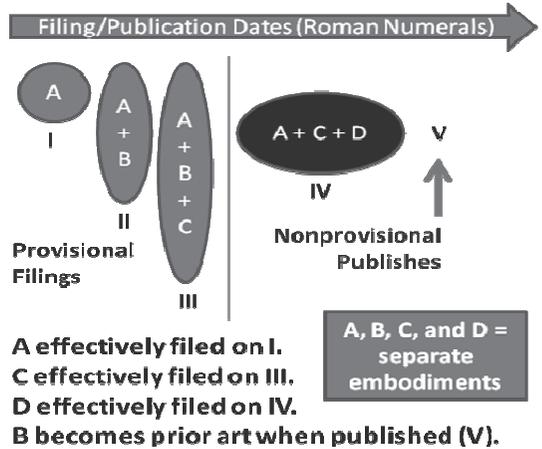
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<sup>140</sup> See generally *In re Wertheim*, 647 F.2d. 527 (C.C.P.A. 1981).

<sup>141</sup> *Id.* at 537, 539.

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.<sup>142</sup>

The application of these principles is readily apparent from a relatively simple example. Consider the situation where a non-provisional application was actually filed as of the 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. 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 non-provisional 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).<sup>143</sup>

<sup>142</sup> 157 CONG. REC. S1369 (daily ed. Mar. 8, 2011) (statement of Sen. Jon Kyl).

<sup>143</sup> See *Bruckelmyer v. Ground Heaters Inc.*, 445 F.3d 1374, 1377, 1379 (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, precluding an earlier date on which this embodiment was effectively filed.
- This leaves only embodiments A and C that become prior art on earlier date than the publication date of the non-provisional application (dates I and III, respectively), given that the same disclosure appears both in the published patent filing and an earlier patent filing for which a right 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;<sup>144</sup>

2) the “effective filing date” for a claimed invention is now defined as the filing date of the earliest application for which *entitlement* to (not just *entitlement to claim*) 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);<sup>145</sup>

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 *that are common* as between a published patent application and any earlier priority/benefit patent filing as though the earlier patent filing had been published as of the date of its filing;<sup>146</sup>

4) the term “prior art” is now actually defined in the patent statute (as the heading of § 102(a) now indicates);<sup>147</sup> 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 under § 102;<sup>148</sup>

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<sup>144</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 3, § 100(j), 125 Stat. 284 (2011).

<sup>145</sup> *Id.* sec. 3, § 100(i).

<sup>146</sup> *Id.* sec. 3, § 102(d).

<sup>147</sup> *Id.* sec. 3, § 102(a).

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

### C. *Building New § 102(a)—The Step-By-Step Construction*

#### 1. **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.<sup>149</sup> 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.<sup>150</sup>

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,”

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<sup>148</sup> *Id.* sec. 3, § 103.

<sup>149</sup> H.R. REP. NO. 82-1923, at 5 (1952).

<sup>150</sup> See P.J. Federico, *Commentary on the New Patent Act*, 75 J. PAT. & TM. OFF. SOC'Y 161, 178 (1993). “The remainder of old R.S. 4886, which stated some of the conditions for patentability, is incorporated in section 102, in which section are also assembled some further conditions. Paragraphs (a), (b) and (c) are restatements of the conditions in R.S. 4886 with no changes other than in language due to their being placed in a separate section and in separate lettered paragraphs.” *Id.* (emphasis added).

these subsections were not distinct from one another but contained overlap such that an item of prior art could simultaneously fall under multiple subsections.<sup>151</sup>

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 both conscious and knowing.<sup>152</sup> 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).

Until the AIA, Congress 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 this may sound like 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 *incontrovertible judicial construction of the law*:

**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—

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

A person shall be entitled to a patent unless—

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<sup>151</sup> Pre-AIA § 102(e) made certain earlier-filed applications of other prior art to a claimed invention in a later patent filing. 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. 35 U.S.C. § 102(e), (g).

<sup>152</sup> “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, *supra* note 150, at 179.

<p>(a) the invention was known or used by others in this country <u>in a manner rendering it available to the public</u>, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or</p> <p>(b) the invention was patented or described in a printed publication in this or a foreign country or</p> <p>(1) in <u>public commercial use or on commercially offered for sale, other than for experimental purposes</u>, in this country <u>by such person or its privies</u> or</p> <p>(2) in public use or on sale <u>or otherwise available to the public</u> in this country, more than one year prior to the date of the application for patent in the United States . . . .</p>	<p>(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</p> <p>(b) the invention was patented or described in a printed publication in this or a foreign country or</p> <p>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 . . . .<sup>153</sup></p>
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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.<sup>154</sup> This problem with pre-AIA § 102(a)’s codification was contemporaneously recognized in the Revision Notes to the 1952 Patent Act, where the reviser expressed apparent frustration with the failure of Congress to make an accurate, plain-English codification of congressional intent for interpreting pre-AIA § 102(a):

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<sup>153</sup> 35 U.S.C. § 102 (2006).

<sup>154</sup> See S. Rep. No. 82-1979 at 17 (1952), *reprinted in* 1952 U.S.C.C.A.N. 2394, 2410 (emphasis added).

“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*.”<sup>155</sup>

- 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.<sup>156</sup> *As written, 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.<sup>157</sup> 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.<sup>158</sup>
- 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

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<sup>155</sup> *Id.*

<sup>156</sup> *Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 519-20 (2d Cir. 1946) (holding secret use by the inventor barred patentability, but secret use by an unrelated third party did not).

<sup>157</sup> *See, e.g., Hall v. Macneale*, 107 U.S. 90, 97 (U.S. 1883) (finding public use where an invention was not visible to the public); *see also Application of Blaisdell*, 242 F.2d 779, 783 (C.C.P.A. 1957) (finding public use when the presence of an invention was not known to the purchaser).

<sup>158</sup> *See* 35 U.S.C. § 102(a) (2006); *see also Carella v. Starlight Archery & Pro Line Co.*, 804 F.2d 135, 139 (Fed. Cir. 1986) (“The statutory language, ‘known or used by others in this country’ (35 U.S.C. § 102(a)), means knowledge or use which is accessible to the public.”).

for purchase by members of the public.<sup>159</sup> 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*.<sup>160</sup> 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).<sup>161</sup> 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*.<sup>162</sup> 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.<sup>163</sup>

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<sup>159</sup> See, e.g., *Netscape Commc’ns Corp. v. Konrad*, 295 F.3d 1315, 1323 (Fed. Cir. 2002).

<sup>160</sup> See *Hobbs v. U.S.*, Atomic Energy Comm’n, 451 F.2d 849, 860 (5th Cir. 1971).

<sup>161</sup> *Netscape Commc’ns*, 295 F.3d at 1320 (“[p]ublic use includes ‘any use of [the claimed] invention by a person other than the inventor who is under no limitation, restriction or obligation of secrecy to the inventor.’”) (alteration in original).

<sup>162</sup> See *Gen. Elec. Co. v. United States*, 654 F.2d 55, 61 (Cl. Ct. 1981) (“A third policy is to prevent the inventor from commercially exploiting the exclusivity of his invention substantially beyond the statutorily authorized 17-year period.”); see also *Netscape Commc’ns*, 295 F.3d at 1323 (“The overriding concern of the on-sale bar is an inventor’s attempt to commercialize his invention beyond the statutory term.”).

<sup>163</sup> This interpretation of § 102(b) arises from the continued application by the courts of the doctrine in *Metallizing Eng’g 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.” *Id.* at 520. 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.* 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

- 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.<sup>164</sup> At a minimum, therefore, pre-AIA § 102(b) omits a huge body of nuanced patent law as applied by the courts.<sup>165</sup>
- Lastly, as noted above, § 102(b) creates prior art, irrespective of whether the acts and actions are by the inventor or by another.<sup>166</sup> For acts or actions by unrelated persons—those independent from the inventor or its privies—no experimental use doctrine is applicable.<sup>167</sup> 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.<sup>168</sup> 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).<sup>169</sup> *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*

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secretly and sold the product openly . . . there was therefore no question either of abandonment or forfeiture by the inventor.” *Id.* at 519.

<sup>164</sup> See *Elizabeth v. Pavement Co.*, 97 U.S. 126, 135 (1878).

<sup>165</sup> See, e.g., *id.*

<sup>166</sup> See 35 U.S.C. § 102(b) (2006).

<sup>167</sup> *Magnetics, Inc. v. Arnold Eng’g Co.*, 438 F.2d 72, 74 (7th Cir. 1971) (“[T]he experimental use doctrine only lifts the one-year statutory bar where the experimental use is by the inventor or persons under his control.”).

<sup>168</sup> See, e.g., *In re Caveney*, 761 F.2d 671, 675-76 (Fed. Cir. 1985).

<sup>169</sup> *Id.* at 675-76 (holding that the sale by a third party of an unpatented product which was created using a secret, patented method does not create an on-sale bar).

*overarching requirement for availability to the public that the courts read into pre-AIA § 102(a).*<sup>170</sup>

Thus, in crafting a new § 102, Congress, was obliged to deal with an amazingly inscrutable provision at the heart of the old 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?

## 2. 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 the law to acts and actions “by others” under pre-AIA §§ 102(a) and (b); and

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<sup>170</sup> See *Metallizing Eng'g*, 153 F.2d at 519-20 (2d Cir. 1946) (holding secret use by an unrelated third party did not bar patentability).

4) leave as much settled law as possible untouched in the course of working the various reforms.<sup>171</sup>

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 thorough 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 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~~

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<sup>171</sup> 157 Cong. Rec. S1335, 1369, 1380 (daily ed. Mar. 8, 2011) (statement of Sen. Jon Kyl).

~~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.~~<sup>172</sup>

With the strikethroughs removed, the backbone of pre-AIA § 102 from which the new § 102 arose is the following:<sup>173</sup>

### **§ 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* . . . .<sup>174</sup>

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<sup>172</sup> 35 U.S.C. § 102 (2006).

<sup>173</sup> In terms of verbiage, pre-AIA § 102 contained 424 words, with all but 117 of them erased with no counterpart replacement in new § 102(a). *Compare id. with Leahy-Smith America Invents Act, sec. 3, § 102(a)*. In quantitative terms, the AIA elimination begins with the conscious subtraction of 73% of the original statutory text.

<sup>174</sup> 35 U.S.C. § 102 (emphasis added).

Under the AIA, thus, the new § 102(a)(1) can be viewed as having pre-AIA § 102(b) as its statutory origin.<sup>175</sup> Similarly, new § 102(a)(2) can be viewed as having pre-AIA § 102(e) as its genesis.<sup>176</sup> 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. A comparison of prior “public disclosures” that represent prior art under § 102(a)(1) is followed by a comparison of the earlier “patent-filing disclosures” that represent prior art under § 102(a)(2). But before tackling the word-by-word comparisons, 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).

### 3. 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, to 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 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.<sup>177</sup>

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.<sup>178</sup>

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

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<sup>175</sup> Compare 35 U.S.C. § 102(b), with Leahy-Smith America Invents Act, sec. 3, § 102(a)(1).

<sup>176</sup> Compare 35 U.S.C. § 102(e), with Leahy-Smith America Invents Act, sec. 3, § 102(a)(2).

<sup>177</sup> See *supra* Part III.C.1.

<sup>178</sup> 35 U.S.C. § 102(a).

provisions, literally, at least, to apply in equal measure to inventors and their privies as well as unrelated persons.<sup>179</sup> 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<sup>180</sup>—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 encompassed 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. Architecturally, 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” doctrine 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.<sup>181</sup> 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.<sup>182</sup>

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 required

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<sup>179</sup> *Id.* § 102(b).

<sup>180</sup> *Id.* §§ 102(a), (b).

<sup>181</sup> *See supra* Part III.C.1.

<sup>182</sup> *See* 35 U.S.C. § 102(b).

clear statutory language, confirmed in the relevant legislative history, that the provision on forfeiture based upon commercial uses not available to the public would no longer exist.<sup>183</sup>

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

Since pre-AIA § 102(b) is the congressional starting point for the new provision qualifying prior public disclosures as prior art, a full and nuanced understanding 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;<sup>184</sup>

##### 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*,<sup>185</sup>

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

<sup>183</sup> 157 Cong. Rec. S1335, 1370 (daily ed. Mar. 8, 2011) (statement of Sen. Jon Kyl).

<sup>184</sup> Leahy-Smith America Invents Act, sec. 3, § 102(a)(1).

<sup>185</sup> 35 U.S.C. § 102(b).

“prior art” is now used in § 102 multiple times.<sup>186</sup> 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.”<sup>187</sup> 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.<sup>188</sup> 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.”<sup>189</sup>

- The term “claimed invention,” now defined in the patent statute, is used in place of the term “invention.”<sup>190</sup> 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.<sup>191</sup> While the pre-AIA § 102 explicitly references “loss of right to patent” in its heading for the section,<sup>192</sup> that reference is now gone from new § 102.<sup>193</sup> New § 102 relates only to “novelty” as a “condition for patentability.”<sup>194</sup> Congress thus 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.<sup>195</sup> Gone

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<sup>186</sup> See Leahy-Smith America Invents Act, sec. 3, § 102(a), (b)(1), (b)(2), (d).

<sup>187</sup> See Leahy-Smith America Invents Act, sec. 3, § 102(b).

<sup>188</sup> See *id.* sec. 3, § 102(b)(1).

<sup>189</sup> See *id.* sec. 3, § 102(d).

<sup>190</sup> See *id.* sec. 3, § 100(j).

<sup>191</sup> See *id.* sec. 3, § 102.

<sup>192</sup> See 35 U.S.C. § 102 (2006).

<sup>193</sup> Leahy-Smith America Invents Act, sec. 3, § 102.

<sup>194</sup> See *id.*

<sup>195</sup> See *id.*

are references to “in this country,” “in the United States,” and “in this or a foreign country.”<sup>196</sup>

- 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.<sup>197</sup>
- The terms “patented”<sup>198</sup> and “described in a printed publication” both remain unchanged.<sup>199</sup> They continue to define sources of pre-filing disclosures that may qualify as prior art.<sup>200</sup> 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.”<sup>201</sup> 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.*<sup>202</sup>

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

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<sup>196</sup> *See id.*

<sup>197</sup> *Id.* sec. 3, § 100(j), (i)(1).

<sup>198</sup> *See generally In re Ekenstam*, 256 F.2d 321 (C.C.P.A. 1958). Also of note are the provisions of the MPEP § 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.” MPEP, *supra* note 12, § 2126.

<sup>199</sup> Leahy-Smith America Invents Act, sec. 3, § 102(a)(1).

<sup>200</sup> *Id.*

<sup>201</sup> *Id.*

<sup>202</sup> *See* 35 U.S.C. § 102(a) (2006).

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*.”<sup>203</sup> 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 of what the new language plainly requires—such 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, 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. The statute 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

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<sup>203</sup> Leahy-Smith America Invents Act, sec. 3, § 102(a)(1).

under new § 102(a)(1). The 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, the 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.<sup>204</sup> It is no longer limited to use in the United States, but use anywhere in the world.<sup>205</sup> Thus, it appears unlikely 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, to destroy an inventor’s right to patent an invention.

Such contentions would additionally need to confront the confirmatory legislative history directly on point:<sup>206</sup>

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<sup>204</sup> See *id.*

<sup>205</sup> See *id.*

<sup>206</sup> The antipathy of the leading congressional sponsors of the AIA to the forfeiture doctrine, all “loss of right to patent” provisions, can be seen from patent reform bills introduced prior to H.R. 1249, 111th Cong. (2011). In earlier legislative efforts, Congress not only removed such forfeiture 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, S. 3600, 110th Cong. (2008) 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.” S. 3600, 110th Cong., § 2(b) (2008) (emphasis added). This amended version of § 102 applied to all claimed inventions that were to be subject to the new law. Evidence that “available to the public” was to preclude any forfeiture doctrine can be found in further provisions of the bill, providing that for any patent that was

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

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not to be subject to the new § 102 provisions, the following limitations would apply (repealing invalidity based upon any otherwise applicable loss of right to patent provision, including the "forfeiture" doctrine of *Metallizing Engineering* (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;

(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.*

S. 3600, 110th Cong. § 16(b)(3) (2008). 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." America Invents Act, H.R. 1249, 112th Cong. § 2(b) (2011). Similarly, in H.R. 2795, 109th Cong., § 11(g) (2005), 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[.]" H.R. 2795, 109th Cong., § 11(g) (2005). While the House and Senate ultimately did not adopt these amendments removing "loss of right to patent" provisions, including the *Metallizing Engineering* forfeiture doctrine, from patents subject to pre-AIA law, 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, especially the forfeiture doctrine of *Metallizing Engineering*. With the AIA now the law, Congress may revisit the possibility that pre-AIA patents might be made subject to the remedial measures as laid out in S. 3600.

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 prior 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:

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 "primarily 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 statutory 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.<sup>207</sup>

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 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).

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<sup>207</sup> 157 CONG. REC. S1335, 1370-71 (daily ed. Mar. 8, 2011) (statement of Sen. Jon Kyl).

## 5. Step Four: Clarifying the “Available to the Public” Standard

In order for the AIA to contain no substantively new patent law concepts, the 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 precedent.

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 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 one year of filing.<sup>208</sup> Prior art also will no longer have any geographic limitations.<sup>209</sup> Thus, the § 102 “in this country” limitation is removed as applied to “public use” and “on sale,” 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.<sup>210</sup>

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.

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<sup>208</sup> *Id.* at 1370.

<sup>209</sup> *Id.*

<sup>210</sup> *Id.*

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 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.<sup>211</sup>

The Federal Circuit’s *In re Lister* (“*Lister*”) decision provides, in essence, the guidepost for understanding § 102(a)(1) prior art.<sup>212</sup> *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 assess 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.*” . . . 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.*” . . . 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.*”<sup>213</sup>

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<sup>211</sup> *Id.* at 1370.

<sup>212</sup> See *In re Lister*, 583 F.3d 1307, 1311 (Fed. Cir. 2009).

<sup>213</sup> *Id.* (emphasis added) (citations omitted).

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.

**6. 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) once the patent filing becomes publicly accessible.<sup>214</sup> This happens when a patent issues or when a pending patent application is published before patent grant.<sup>215</sup> New § 102(a)(2) provides that in certain situations subject matter described in a patent filing can have effect as prior art not only on the date when the filing becomes publicly accessible, but at an earlier point in time as well, namely as of the time of the patent filing itself.<sup>216</sup>

For subject matter to qualify as prior art as of the patent filing date, the patent filing must represent either a nonprovisional patent filing in the United States or an international patent filing under the Patent Cooperation Treaty designating the United States.<sup>217</sup> As discussed extensively above, such a patent filing creates prior art for the subject matter it describes as of the date it was effectively filed.<sup>218</sup>

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:

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<sup>214</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 3, § 102(a)(1), 125 Stat. 284, 285-86 (2011).

<sup>215</sup> *Id.*

<sup>216</sup> *Id.* sec. 3, § 102(a)(2).

<sup>217</sup> *Id.*

<sup>218</sup> *See id.*

**AIA § 102(a)(2):**

(2) the claimed invention was described in [2] a patent issued under section 151, or in [1] 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.<sup>219</sup>

**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,*<sup>220</sup>

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 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” and “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*.<sup>221</sup>

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<sup>219</sup> *Id.*

<sup>220</sup> 35 U.S.C. § 102(e) (2006).

<sup>221</sup> *In re Land*, 368 F.2d 866, 878 (C.C.P.A. 1966).

- The reference to patent applications filed earlier now precedes the reference to issued patents. Additionally, 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).<sup>222</sup>
- 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 restricts the date when subject matter in a patent was “effectively filed” to a U.S. patent filing.<sup>223</sup>
- The term “deemed published” is added to account for patent filings under the Patent Cooperation Treaty. The term “deemed published” arises in 35 U.S.C. § 374, as amended by the AIA.<sup>224</sup> This provision establishes that every patent filing under 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.<sup>225</sup> 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.<sup>226</sup>

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<sup>222</sup> Leahy-Smith America Invents Act, sec. 3, § 102(a); 35 U.S.C. §§ 122, 151.

<sup>223</sup> See Leahy-Smith America Invents Act, sec. 3, § 102(a).

<sup>224</sup> “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).

<sup>225</sup> Leahy-Smith America Invents Act, sec. 3, § 102(a).

<sup>226</sup> 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 . . .” Patent Cooperation Treaty, Rule 4.9(a), June 19, 1970, U.S.T. 7645, 1160 U.N.T.S. 231 [hereinafter Patent Cooperation Treaty]. Thus, under current PCT practice, all published patent filings under the PCT

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.

#### D. *The Hilmer Doctrine Becomes Moot*

Under the holding of the Court of Customs and Patent Appeals in the *In re Hilmer* (“*Hilmer*”) appeal,<sup>227</sup> 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(e) 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.<sup>228</sup>

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 pre-AIA § 102(g).<sup>229</sup>

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 as the relevant patentability-defeating date. Indeed, such trumping was routine in patent interference contests.<sup>230</sup>

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are encompassed under § 102(a)(2). See MPEP, *supra* note 12, § 1801 (“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.”).

<sup>227</sup> *In re Hilmer*, 359 F.2d 859, 863, 879 (C.C.P.A. 1966).

<sup>228</sup> 35 U.S.C. § 102(e) (2006).

<sup>229</sup> *See id.* § 102(g).

<sup>230</sup> 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

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 issued validly. 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.<sup>231</sup>

Under the AIA, the sole provision that bars identical patents from issuing to rival inventors is new § 102(a)(2).<sup>232</sup> 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—even 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-

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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,” e.g., as a “prior invention of another.” In the context of such a patent interference, the foreign patent filing of subject matter operated to destroy the right to patent a claimed invention of a rival inventor with a later effective filing date, at least absent demonstration by the rival inventor of an even earlier date of invention for the claimed subject matter. This rule was not followed outside the patent interference context.

<sup>231</sup> 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.”

<sup>232</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 3, § 102(a)(2), 125 Stat. 284, 285-86 (2011).

AIA § 102(g) effectively accomplished. The *Hilmer* doctrine, therefore, was neither abandoned nor forsaken; it merely succumbed to its own irrelevance.

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

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) and 102(c).

The structure of new § 102(b) shadows that of new § 102(a). Both subsections contain two paragraphs.<sup>233</sup> Paragraph (1) of subsection (b) provides exceptions from prior art arising under paragraph (1) of subsection (a).<sup>234</sup> Similarly, paragraph (2) of subsection (b) provides corresponding exceptions relating to paragraph (2) of subsection (a).<sup>235</sup>

The specific exceptions to prior art in each of the paragraphs (1) and (2) are found in separate subparagraphs.<sup>236</sup> Paragraph (1) contains two subparagraphs and each of these subparagraphs has a counterpart in paragraph (2).<sup>237</sup> However, paragraph (2), relating to earlier patent-filing prior art exceptions, has a third subparagraph that has no counterpart in paragraph (2).<sup>238</sup> The table that follows summarizes these provisions:

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<sup>233</sup> *Id.* sec. 3, § 102(a), (b).

<sup>234</sup> Leahy-Smith America Invents Act, sec. 3, § 102(b).

<sup>235</sup> *Id.*

<sup>236</sup> *Id.*

<sup>237</sup> *Id.*

<sup>238</sup> *Id.* sec. 3, § 102(b)(2)(c).

Prior Art Exceptions	Prior Public Disclosure Prior Art Exceptions Under § 102(b)(1)	Earlier Patent Filing Prior Art Exceptions Under § 102(b)(2)
Subparagraph (A)	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. <sup>239</sup>	Same as for § 102(b)(1). <sup>240</sup>
Subparagraph (B)	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. <sup>241</sup>	Same as for § 102(b)(1). <sup>242</sup>
Subparagraph (C)	[No relevant exception.]	Subject matter covered under a common assignment (or deemed so by virtue of a joint research agreement, under § 102(c)) as of the effective filing date is excepted. <sup>243</sup>

This introduction to the framework of new §§ 102(b)'s and 102(c)'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.

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<sup>239</sup> *Id.* sec. 3, § 102(b)(1)(A).

<sup>240</sup> *Id.* sec. 3, § 102(b)(2)(A).

<sup>241</sup> *Id.* sec. 3, § 102(b)(1)(B).

<sup>242</sup> *Id.* sec. 3, § 102(b)(2)(B).

<sup>243</sup> *Id.* sec. 3, § 102(b)(2)(C).

### 1. 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 § 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.”<sup>244</sup>

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 insisting 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*.<sup>245</sup>

The concept of “enabling disclosure” and “original disclosure” in the context of a patent filing are referenced in § 113.<sup>246</sup> 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.<sup>247</sup> A parallel provision is to be found in § 120.<sup>248</sup>

From the amendment to § 103 replacing the term “disclosed or described” with the single descriptor “disclosed,” Congress was indicating that a *description* is merely one means for producing a *disclosure*. The word “described” 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.<sup>249</sup> 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

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<sup>244</sup> See 35 U.S.C. § 102 (2006).

<sup>245</sup> Leahy-Smith America Invents Act, sec. 3, § 103 (emphasis added).

<sup>246</sup> 35 U.S.C. § 113.

<sup>247</sup> See *id.* § 119.

<sup>248</sup> See *id.* § 120.

<sup>249</sup> See Leahy-Smith America Invents Act, sec. 3, § 102(a).

documents), while—in a similar manner—§ 102(a)(1) prior art characterizes only printed publications as disclosures in which subject matter is described.<sup>250</sup>

What emerges 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).<sup>251</sup>
- The terms “described” and “description” reference disclosures in the form of writings, documents, or like means for communicating subject matter in an intelligible manner.<sup>252</sup> Providing a *description* is one form of making a *disclosure*.<sup>253</sup>
- 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*.<sup>254</sup> 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.<sup>255</sup>
- All prior art, thus, results from *disclosures*. AIA § 102(a), titled “NOVELTY, PRIOR ART,” provides both the definition for prior art and the novelty condition required for patentability.<sup>256</sup> AIA § 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

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<sup>250</sup> *Id.*

<sup>251</sup> *See id.* sec. 3, § 102(a)(1).

<sup>252</sup> *See id.* sec. 3, § 102(a).

<sup>253</sup> *See id.*

<sup>254</sup> *See Leahy-Smith America Invents Act*, sec. 3, § 102.

<sup>255</sup> *See id.* sec. 3, § 102(a)(2).

<sup>256</sup> *Id.* sec. 3, § 102(a).

art,<sup>257</sup> 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.<sup>258</sup>

- AIA § 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*.<sup>259</sup> 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*.<sup>260</sup> 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.<sup>261</sup>

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

## 2. 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:

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<sup>257</sup> *Id.* sec. 3, § 103.

<sup>258</sup> *Id.*

<sup>259</sup> *Id.* sec. 3, § 102(a)(1).

<sup>260</sup> *See id.* sec. 3, § 102(a)(2).

<sup>261</sup> *Compare id.* sec. 3, § 102(a)(1), *with id.* sec. 3, § 102(a)(2).

**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 . . .*<sup>262</sup>

**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 . . .*<sup>263</sup>

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).<sup>264</sup> Thus, for prior art under § 102(a)(1), nothing in § 102(b)(2) applies as an exception to the § 102(a)(1) prior art.<sup>265</sup> The same is true for § 102(a)(2) prior art not being excepted under any of the provisions of § 102(b)(1).<sup>266</sup>
- 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.<sup>267</sup> Thus, § 102(b)(1) exceptions provide a one-year “grace period.”<sup>268</sup> For § 102(b)(2), no similar time limitation on its reach is either present or

<sup>262</sup> *Id.* sec. 3, § 102(b)(1).

<sup>263</sup> *Id.* sec. 3, § 102(b)(2).

<sup>264</sup> *See id.* sec. 3, § 102(b)(1), (2).

<sup>265</sup> *See* Leahy-Smith America Invents Act, sec. 3, § 102(b)(2).

<sup>266</sup> *See id.* sec. 3, § 102(b)(1).

<sup>267</sup> *See id.* sec. 3, § 102(b)(1), (2).

<sup>268</sup> *See* Leahy-Smith America Invents Act, sec. 3, § 102(b)(1).

required.<sup>269</sup> This paragraph merely addresses when a patent filing will constitute prior art as of when its subject matter contents were effectively filed.<sup>270</sup>

- 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.<sup>271</sup> 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.<sup>272</sup>
- 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, both provisions exempt from prior art subject matter disclosed, if obtained directly or indirectly from the inventor or a joint inventor.<sup>273</sup> However, the actual structure of the two subparagraphs differs.<sup>274</sup>
- Paragraph (1) governs the *persons* making the disclosure, but does so in two parts. The first part is a categorical exception for an inventor’s own disclosures.<sup>275</sup> The second is an exception for any subject matter disclosed by others, provided what was disclosed was the inventor’s own work.<sup>276</sup> Paragraph (2) deals solely with the origin of the subject matter disclosed rather than the person making the disclosure itself, i.e., whether or not the disclosure was of the inventor’s own work. Paragraph (2) does not require recitation of the first part found in paragraph (1)—

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<sup>269</sup> *Id.* sec. 3, § 102(b)(2).

<sup>270</sup> *Id.*

<sup>271</sup> *See id.* sec. 3, § 102(a),(b).

<sup>272</sup> *See Leahy-Smith America Invents Act*, sec. 3, § 103.

<sup>273</sup> *See id.* sec. 3, § 102(b)(1)(A), (b)(2)(A).

<sup>274</sup> *Compare Leahy-Smith America Invents Act*, sec. 3, § 102(b)(1)(A) *with Leahy-Smith America Invents Act*, sec. 3, § 102(b)(2)(A).

<sup>275</sup> *Leahy-Smith America Invents Act*, sec. 3, § 102(b)(1)(A).

<sup>276</sup> *Id.* sec. 3, § 102(b)(1)(B).

disclosures made by the inventor itself.<sup>277</sup> The self-evident reason for this difference is that § 102(a)(1) applies broadly to public disclosures by *any person* (thus, being amenable to 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).<sup>278</sup> 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 made by 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),<sup>279</sup> 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.<sup>280</sup>

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.<sup>281</sup> Under subparagraph (A), therefore, nothing changes from existing law, particularly as understood by the USPTO and as applied by the courts.

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<sup>277</sup> Compare Leahy-Smith America Invents Act, sec. 3, § 102(b)(1) with Leahy-Smith America Invents Act, sec. 3, § 102(b)(2).

<sup>278</sup> Compare Leahy-Smith America Invents Act, sec. 3, § 102(a)(1) with Leahy-Smith America Invents Act, sec. 3, § 102(a)(2).

<sup>279</sup> 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, the term "obtained . . . directly or indirectly from the inventor" means that the inventor must be the intellectual originator of the subject matter. This is further apparent from the quotation to follow from the *Facius* appeal. See *In re Facius*, 408 F.2d 1396, 1407 (C.C.P.A. 1969).

<sup>280</sup> Leahy-Smith America Invents Act, sec. 3, § 102(b)(1)(A), (b)(2)(A).

<sup>281</sup> Leahy-Smith America Invents Act, sec. 3, § 102(b)(1)(A), (b)(2)(A).

The *In re Facius* (“*Facius*”) appeal, under pre-AIA law, addressed a situation 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.<sup>282</sup> Subject matter disclosed in the earlier patent that was derived from *the work of the inventor* and relevant to the later claimed invention (i.e., in contrast to subject matter derived from the inventor, but representing merely *the inventor’s knowledge of other prior art*), was therefore 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.<sup>283</sup>

While the *Facius* appeal dealt specifically with a prior patent filing, relevant to paragraph (2) prior art, the principle has and will continue to apply to public-disclosure prior art under paragraph (1).<sup>284</sup> 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.”<sup>285</sup>

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<sup>282</sup> *In re Facius*, 408 F.2d at 1402-03.

<sup>283</sup> *Id.* at 1407.

<sup>284</sup> Leahy-Smith America Invents Act, sec. 3, § 102(b)(1); see also *In re Facius*, 408 F.2d at 1407.

<sup>285</sup> See MPEP, *supra* note 12, § 2137, (quoting *In re Costello*, 717 F.2d 1346, 1349 (Fed. Cir. 1983) in explaining that “[a] prior art reference that is not a

### 3. 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., the inventor made the disclosure within one year or less of the effective filing date for the claimed invention.<sup>286</sup> A patent could nonetheless be barred on the subject matter otherwise protected under the “grace period” if independent work of an unrelated inventor had been the subject of § 102(a)(1) prior public disclosure or a § 102(a)(2) earlier patent filing.<sup>287</sup>

These new subparagraph (B) exceptions were intended to provide some, *but not all*, of 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.<sup>288</sup>

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

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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.’”).

<sup>286</sup> Leahy-Smith America Invents Act, sec. 3, § 102(b)(1)(A).

<sup>287</sup> *See id.* sec. 3, § 102(b)(1)(B), (b)(2)(B).

<sup>288</sup> *See id.*

**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.<sup>289</sup>

**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 . . .<sup>290</sup>

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

- The two subparagraph (B) exceptions themselves are substantively identical; they differ only in the reference to the 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)* which would otherwise constitute prior art.<sup>291</sup>

<sup>289</sup> *Id.* sec. 3, § 102(b)(1).

<sup>290</sup> *Id.* sec. 3, § 102(b)(2).

<sup>291</sup> Compare Leahy-Smith America Invents Act, sec. 3, § 102(b)(1)(B) with Leahy-Smith America Invents Act, sec. 3, § 102(b)(2)(B).

- Under the subparagraph (B) exceptions, the subject matter disclosed that is to be excluded from prior art arises 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*.<sup>292</sup> 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).<sup>293</sup>
- 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).<sup>294</sup> 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 may qualify for the § 102(b)(2)(B) exception.<sup>295</sup>
- 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.<sup>296</sup> Importantly, the limitation on the exception to the same subject matter that was publicly disclosed earlier 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).<sup>297</sup>

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

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<sup>292</sup> See *id.* sec. 3, § 102(b)(1)(B), (b)(2)(B).

<sup>293</sup> See *id.* sec. 3, § 102(b)(1)(B), (b)(2)(B).

<sup>294</sup> See *id.* sec 3, § 102(b).

<sup>295</sup> See *id.* sec 3, § 102(b)(2)(B).

<sup>296</sup> See *id.* sec 3, § 102(b)(1)(B), 102(b)(2)(B).

<sup>297</sup> See *id.* sec 3, § 102(b)(1)(B), 102(b)(2)(B).

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 *In re Stempel* (“*Stempel*”).<sup>298</sup> In *Stempel*, the effective filing date of the claimed invention was subsequent to a public disclosure that rendered the claimed invention obvious.<sup>299</sup> *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).<sup>300</sup>

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.<sup>301</sup> 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.<sup>302</sup>

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<sup>298</sup> *In re Stempel*, 241 F.2d 755 (C.C.P.A. 1957).

<sup>299</sup> *See id.* at 756-57.

<sup>300</sup> *See id.* at 759-760; *see also* Application of Clarke, 356 F.2d 987, 991 (C.C.P.A. 1966) (“Under the rule in *Stempel* an applicant has the burden of proving priority with respect to so much of the claimed invention as the reference happens to show.”).

<sup>301</sup> *See In re Stempel*, 241 F.2d at 759.

<sup>302</sup> “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 . . . exclude[] a construction permitting the further use of a reference as a ground of rejection after *all*

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.<sup>303</sup> 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 *In re Tanczyn* ("*Tanczyn*")<sup>304</sup> 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.<sup>305</sup>

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 of *Stempel*—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.<sup>306</sup>

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*pertinent subject matter* in it has been antedated to the satisfaction of the Patent Office."

*In re Stempel*, 241 F.2d at 759-60.

<sup>303</sup> See Leahy-Smith America Invents Act, sec. 3, § 102(a)(1).

<sup>304</sup> *In re Tanczyn*, 347 F.2d 830 (C.C.P.A. 1965).

<sup>305</sup> *Id.* at 833.

<sup>306</sup> See Leahy-Smith America Invents Act, sec. 3, § 102(b).

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 prior-art disclosure is to a separate and distinct embodiment. These facts arose in the *In re Clarke* (“*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.<sup>307</sup> The intervening disclosure was to a second species falling within the genus.<sup>308</sup>

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 the subject matter that the subparagraph (B) exceptions will remove as prior art.<sup>309</sup> Thus, the prior-art embodiment 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 to adding or subtracting insubstantial changes or merely obvious or trivial variations.<sup>310</sup> 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 looking 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 readily apparent reasons.<sup>311</sup> 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.<sup>312</sup> Since § 103 now requires a look at the differences between the “claimed invention” and the “prior art,” the overall statutory scheme reinforces that the

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<sup>307</sup> *In re Clarke*, 356 F.2d 987 (C.C.P.A. 1966).

<sup>308</sup> *See id.* at 988-90.

<sup>309</sup> *See* Leahy-Smith America Invents Act, sec. 3, § 102(b)(1)(B), (b)(2)(B).

<sup>310</sup> *Id.* sec. 3, § 102(b).

<sup>311</sup> 35 U.S.C. § 103(a) (2006).

<sup>312</sup> Leahy-Smith America Invents Act, sec. 3, § 100(h).

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, with a regular national patent filing. It could have done so, such that an enabling disclosure of a claimed 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 non-provisional patent filing, entitled to priority to the regular national filing accomplished via publication in the United States.<sup>313</sup> However, Congress—by electing not to treat a public disclosure as the equivalent of a patent filing able to generate an effective filing date—obviously 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

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<sup>313</sup> 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(A)(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 [Art. 4(A)(2)], Mar. 20, 1883, 21 U.S.T. 1583, 828 U.N.T.S. 305 [hereinafter Paris Convention]. 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(A)(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.” Paris Convention, *supra* note 313, at Art. 4(A)(3).

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. This would permit Inventor A to secure a broad patent on embodiments X and Y. Such a construction of subparagraph (b) would mean that an inventor would gain a significant advantage by publishing an invention instead of promptly seeking a patent on the same subject matter.

Thus, subparagraph (B) cannot be credibly 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.

#### **4. Subparagraph (C) Exception: Co-Workers and (Under § 102(c) Other Collaborators**

The last prior art exception in § 102(b) is the paragraph (2) exception found in subparagraph (C).<sup>314</sup> This is the exception that continues—and improves—the provisions of the AIPA of 1999 and (by virtue of new § 102(c)) the CREATE Act of 2004. Under the pre-AIA law, these prior art exceptions were found in pre-AIA § 103(c)(1) for the AIPA provisions and pre-AIA §§ 103(c)(2) and 103(c)(3) for the CREATE Act provisions.

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<sup>314</sup> Leahy-Smith America Invents Act, sec. 3, § 102(b)(2)(C).

The AIPA and the CREATE Act both provided exceptions from subject matter that would otherwise have been available as prior art solely for *obviousness* determinations.<sup>315</sup> Thus, 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.<sup>316</sup> The CREATE Act extended what effectively was the AIPA's co-worker exception from prior art to encompass a wider sphere of collaborators.<sup>317</sup> 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 that are specific to continuing the CREATE Act are found in new § 102(c)(1)-(3).<sup>318</sup> The AIPA provisions are reincarnated in new § 102(b)(2)(C).<sup>319</sup>

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):

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<sup>315</sup> Act of Nov. 29, 1999, Pub. L. No. 106-113, § 4807(a), 113 Stat. 1501, 1501A-591; Cooperative Research and Technology Enhancement (CREATE) Act of 2004, Pub. L. No. 108-453, sec. 2, § 103(c)(2), 118 Stat. 3596.

<sup>316</sup> Act of Nov. 29, 1999, § 4807(a).

<sup>317</sup> Cooperative Research and Technology Enhancement (CREATE) Act of 2004, § 2.

<sup>318</sup> Leahy-Smith America Invents Act, sec. 3, §§ 102(c)(1)-(c)(3).

<sup>319</sup> *Id.* sec. 3, § 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.<sup>320</sup>

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*;

**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.<sup>321</sup>

**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*;

<sup>320</sup> *Id.* sec. 3, § 102(b)(2)(C).

<sup>321</sup> 35 U.S.C. § 103(c)(1) (2006).

(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.<sup>322</sup>

(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.<sup>323</sup>

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):**

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

(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.<sup>324</sup>

(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.<sup>325</sup>

The following observations are relevant 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-

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<sup>322</sup> Leahy-Smith America Invents Act, sec. 3, § 102(c).

<sup>323</sup> 35 U.S.C. § 103(c)(2).

<sup>324</sup> Leahy-Smith America Invents Act, sec. 3, § 100(h).

<sup>325</sup> 35 U.S.C. § 103(c)(3) (2006).

obviousness.<sup>326</sup> Under the pre-AIA statute, they were to be found in § 103; they now appear in § 102.<sup>327</sup>

- A near equally profound change is the timing of the exceptions. Under pre-AIA law if the common assignment obligation or joint research agreement was not in place as of the invention date of the claimed invention, the patent applicant could not invoke the remedial provisions.<sup>328</sup> Under the AIA, the common assignment obligation or joint research agreement need only be in place as of the effective filing date of the claimed invention.<sup>329</sup>
- The remaining changes that result in pre-AIA § 103(c)(1) becoming new § 102(b)(2)(C) are largely editorial in nature, reflecting the pre-AIA statute's now defunct provisions dealing with 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.
- The pre-AIA § 103(c)(2)(A) provisions implementing the CREATE Act did not explicitly require the subject matter to have been developed by a party to the joint research agreement to be excepted from prior art.<sup>330</sup> 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.<sup>331</sup> 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 require that the claimed invention was "made as a result of activities undertaken within the scope of the joint research

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<sup>326</sup> Leahy-Smith America Invents Act, sec. 3, § 102(b)-(c).

<sup>327</sup> 35 U.S.C. § 103; Leahy-Smith America Invents Act, sec. 3, § 102.

<sup>328</sup> 35 U.S.C. § 103(c)(1), (c)(2)(A).

<sup>329</sup> Leahy-Smith America Invents Act, sec. 3, § 102(c).

<sup>330</sup> 35 U.S.C. § 103(c)(2)(A).

<sup>331</sup> Leahy-Smith America Invents Act, sec. 3, § 102(c).

agreement.”<sup>332</sup> Read narrowly, this provision might require that the joint research agreement be in place *before the date that the claimed invention was made*. However, if it were treated as remedial in character and broadly construed to accomplish its 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 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 new § 102(c)(2) 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 allows a joint research agreement of an appropriate scope of activities, executed as late as the effective filing date of a claimed invention, to trigger 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 features of pre-AIA U.S. patent law that were friendly towards inventors and collaboration. 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.<sup>333</sup> 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.<sup>334</sup> Whether such an intervening disclosure is another public disclosure or a patent-filing disclosure, it is excepted as prior art.<sup>335</sup> Finally, the subparagraph (C) exceptions first preserve and then extend the protection that co-workers and collaborators enjoyed under pre-AIA patent law

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<sup>332</sup> *Id.* sec. 3, § 102(c)(2); 35 U.S.C. § 103(c)(2)(B).

<sup>333</sup> Leahy-Smith America Invents Act, sec. 3, § 102(b)(2)(A).

<sup>334</sup> *Id.* sec 3, § 102(b)(2)(B).

<sup>335</sup> *Id.*

by declaring 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.<sup>336</sup>

#### IV. INVALIDITY, UNENFORCEABILITY AND THE "BEST MODE" REQUIREMENT

The requirement in § 112, first paragraph, i.e., the pre-AIA statute, 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."<sup>337</sup> 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."<sup>338</sup> The intent of the re-codification is to continue unchanged this pre-AIA requirement dealing with the specification of a U.S. patent filing.

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.<sup>339</sup> 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.<sup>340</sup>

Moreover, as a matter of good patent drafting practices, the disclosure of the "best mode" for carrying out a claimed invention ranges from highly desirable to effectively unavoidable for very practical reasons. An undisclosed

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<sup>336</sup> *Id.* sec. 3, § 102(b)(2)(C) and § 102(c).

<sup>337</sup> 35 U.S.C. § 112 (2006) (emphasis added).

<sup>338</sup> 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.

<sup>339</sup> *See* 35 U.S.C. § 112 (2006) ("The specification . . . shall set forth the best mode contemplated . . .").

<sup>340</sup> *Id.*

mode cannot be specifically claimed.<sup>341</sup> Inventors typically benefit most from patents containing a specific claim to the most important mode for carrying out an invention. Frequently, it may prove to be the only mode that survives the tests for 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 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 of retaining any vestige of this requirement in the new law. It reached this conclusion for good reasons.

The National Research Council of the National Academies of Science had urged abolition of the “best mode” requirement.<sup>342</sup> Every major IP bar and trade organization supported outright repeal of the requirement.<sup>343</sup> Patent reform bills dating back to the 109th Congress contained provisions to abolish the requirement.<sup>344</sup> Nonetheless, for reasons that may not be subject to 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

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<sup>341</sup> *See id.* (“The specification shall contain a written description of the invention . . .”).

<sup>342</sup> COMMITTEE ON INTELLECTUAL PROPERTY RIGHTS IN THE KNOWLEDGE-BASED ECONOMY, BOARD ON SCIENCE, TECHNOLOGY, AND ECONOMIC POLICY, POLICY AND GLOBAL AFFAIRS DIVISION, A PATENT SYSTEM FOR THE 21ST CENTURY 7, 121 (Stephen A. Merrill, Richard C. Levin & Mark B. Myers, eds., 2004) [hereinafter A PATENT SYSTEM FOR THE 21ST CENTURY].

<sup>343</sup> American Bar Association Section of Intellectual Property Law, A Section White Paper: Agenda for 21st Century Patent Reform 2 (Working Paper, 2009) [hereinafter Agenda for 21st Century Patent Reform].

<sup>344</sup> H.R. 2795, 109th Cong. § 4(d)(1)(B) (2005).

letter. Congressional savaging of the “best mode” requirement took the following forms.

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.<sup>345</sup> 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 benefit from an earlier-filed U.S. nonprovisional patent filing have both been amended.<sup>346</sup> 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*).”<sup>347</sup> Thus, priority or benefit from an earlier U.S. patent filing will no longer 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 Congress had nothing to repeal or revise in order to ensure 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 of such a requirement was for “symmetry”—to ensure that all § 119 and § 120 priority/benefit issues would be determined on a level playing field.<sup>348</sup> 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 silentio* accomplished the same result for § 119(a) priority issues.

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<sup>345</sup> *Id.*

<sup>346</sup> *Id.*

<sup>347</sup> *Id.* § 15(b).

<sup>348</sup> *See In re Gosteli*, 872 F.2d 1008, 1011 (Fed. Cir. 1989).

The leading precedent in the Federal Circuit that clarifies how the new law will operate can be found in the *In re Gosteli* (“*Gosteli*”) appeal.<sup>349</sup>

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.*<sup>350</sup>

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 § 282(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.”<sup>351</sup> 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.*”<sup>352</sup>

The bars to patent invalidity, patent unenforceability, and patent cancellation mean that section 15 of the AIA was crafted to bar consideration of

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<sup>349</sup> *See id.*

<sup>350</sup> *Id.* (emphasis added).

<sup>351</sup> 35 U.S.C. § 282(3) (2006).

<sup>352</sup> Leahy-Smith America Invents Act, sec. 15.

the “best mode” issue in a variety of forums. Not only can best mode 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 USPTO might cancel claims of an issued patent, a best-mode deficiency cannot be a ground considered by the USPTO.

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.”<sup>353</sup> 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.<sup>354</sup>

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 USPTO, which of course includes new proceedings such as supplemental examination,<sup>355</sup> 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 Productions, Inc. v. Performance Contracting, Inc.* (“*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.”<sup>356</sup>

In other words, in examining any continuing application for patent where entitlement in fact to priority or benefit exists, there is no need to provide

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<sup>353</sup> *Id.*

<sup>354</sup> *Id.*

<sup>355</sup> *Id.* sec. 12, § 257.

<sup>356</sup> *Transco Prods., Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 557 (Fed. Cir. 1994).

any additional disclosure relating to the “best mode” after the effective filing date of a claimed invention under *Transco* and, under the AIA’s new provisions, the USPTO 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.<sup>357</sup> 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.

Situations in which a patent might issue on an application for patent where no claim for priority or benefit has been made are few.<sup>358</sup> 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.<sup>359</sup>

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, neither subject to the *Transco* holding nor the statutory revisions to § 119 and § 120. Non-disclosure cannot be raised in any litigation

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<sup>357</sup> Leahy-Smith America Invents Act, sec. 3, § 100(i)(1).

<sup>358</sup> Patent applicants could, of course, pay a tiny price to avoid even such a rare circumstance by simply filing the provisional application for a patent, even a day before filing the non-provisional application for the patent. 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 non-provisional 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, non-provisional patent filing to be tuned to reflect intervening development of any claimed invention.

<sup>359</sup> 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 (C.C.P.A. 1981).

involving the patent. It cannot be raised in any proceeding in which the USPTO might otherwise have the authority to cancel a claim of the patent. It cannot be raised otherwise in proceedings in the USPTO 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.

## V. 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:

*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.*<sup>360</sup>

This provision implements the requirement that the 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 invention

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<sup>360</sup> 35 U.S.C. § 101 (2006) (emphasis added).

sought to be patented.<sup>361</sup> 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.<sup>362</sup> 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.<sup>363</sup>

**A. *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 § 101, it generally permitted only an inventor to apply for a patent.<sup>364</sup> 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* . . .”<sup>365</sup> In pre-AIA § 111(a)(2)(C), a proper (nonprovisional) patent filing required “an oath by the *applicant*,”<sup>366</sup> 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.<sup>367</sup>

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<sup>361</sup> Bd. of Trustees of the Leland Stanford Junior Univ. v. Roche Molecular Sys. Inc., 131 S. Ct. 2188, 2195 (2011) (“Our precedents confirm the general rule that rights in an invention belong to the inventor.”).

<sup>362</sup> See *Kimberly-Clark Corp. v. Procter & Gamble Distrib. Co.*, 973 F.2d 911, 917 (Fed. Cir. 1992) (“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.”).

<sup>363</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 3, 125 Stat. 284, 285-93 (2011).

<sup>364</sup> Patent Act of 1952, Pub. L. No. 593, § 101, 66 Stat. 792, 797.

<sup>365</sup> 35 U.S.C. § 102(a) (2006) (emphasis added).

<sup>366</sup> *Id.* § 111(a)(2)(C).

<sup>367</sup> *Id.* § 115 (emphasis added).

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.<sup>368</sup>

The subtle metamorphosis in § 118 is more visible using a side-by-side comparison:

### **New § 118 Filing by other than inventor**

*A person to whom the inventor has assigned or is under an obligation to assign the invention may make an application for patent. A person who otherwise shows sufficient proprietary interest in the matter may make an 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 appropriate to preserve the rights of the parties. If the Director grants a patent on an application filed under this section by a person other than the inventor, the patent shall be granted to the real party in interest and upon such notice to the inventor as the Director considers to be sufficient.<sup>369</sup>*

### **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.<sup>370</sup>*

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

<sup>368</sup> Leahy-Smith America Invents Act, sec. 4, § 118.

<sup>369</sup> Leahy-Smith America Invents Act, sec. 4, § 118 (emphasis added).

<sup>370</sup> 35 U.S.C. § 118 (emphasis added).

cannot be found.<sup>371</sup> Instead, the assignee is afforded a plenary right to make an application for a patent in its own right.<sup>372</sup>

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.<sup>373</sup> That provision remains.<sup>374</sup> 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.<sup>375</sup>

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, or, where an assignment was in place, the assignee.<sup>376</sup> 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.<sup>377</sup>

Having made these changes, the terminal clause in § 118 remains and permits the USPTO to provide (or require the provision of) notice to the inventor when patents will issue to assignees, as well as to the inventor itself.<sup>378</sup> 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.

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<sup>371</sup> *Id.*

<sup>372</sup> *See id.*

<sup>373</sup> 35 U.S.C. § 118.

<sup>374</sup> Leahy-Smith America Invents Act, sec. 4, § 118.

<sup>375</sup> Compare 35 U.S.C. § 118 (2006), with Leahy-Smith America Invents Act, sec. 4, § 118.

<sup>376</sup> *See* Leahy-Smith America Invents Act, sec. 4, § 118.

<sup>377</sup> *See* 35 U.S.C. § 118 (2006).

<sup>378</sup> *See* Leahy-Smith America Invents Act, sec. 4, § 118.

**B.     *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 did not himself invent the subject matter sought to be patented.”<sup>379</sup> Thus, this putative “loss of right to patent” provision *should have been* merely duplicative of the requirement that “[w]hoever invents or discovers” may obtain a patent under § 101.<sup>380</sup> To the extent it 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.

However, when Congress took up patent reform in 2005, it was fully aware—on account of the PLAA of 1984—that the Federal Circuit had determined that the pre-AIA § 102(f) must be read as more than an inventorship or “loss of right to patent” requirement.<sup>381</sup> Indeed, this subsection had become, as far as the courts were concerned, a *prior art* provision for assessing obviousness.<sup>382</sup> The Federal Circuit concluded that it would have made no sense for Congress to have acted to exclude an inventor’s personal knowledge gleaned from another as “prior art” under the PLAA unless it otherwise could somehow qualify as prior art.<sup>383</sup> Thus, for thirty-two years after enactment of 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 of pre-AIA § 102(f) ilk into the new law would have undone the transparency/objectivity reforms that its

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<sup>379</sup> 35 U.S.C. § 102(f).

<sup>380</sup> While duplicative, its presence in pre-AIA § 102 was logically dictated by the preamble. The section needed to limit the right to inventors. *See id.* §§ 101, 102(f).

<sup>381</sup> 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.

<sup>382</sup> *See OddzOn*, 122 F.3d at 1402.

<sup>383</sup> *See id.*

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. Congress rejected the notion that the inventor's private knowledge learned from others should then be provided to patent examiners to determine whether 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 a true inventor in the situation where someone has learned of the inventor's invention (i.e., derived from the inventor non-public knowledge of the type that was at issue in *OddzOn*) and the deriver sought a patent on the derived subject matter or some obvious variant of that derived knowledge.<sup>384</sup> If an inventor succeeds in such a derivation claim, the inventor can decide which patent application, in which it would then

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<sup>384</sup> 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 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 correctly named as the inventor or a joint inventor, not only is ownership impacted, but patentability can be protected through the right to benefit under § 120 of the deriver's original patent filing date. Because, as will be discussed in detail: (a) deceptive intention is no longer a limitation on correction of inventorship; (b) correction of inventorship can be done in a derivation proceeding under § 135, and (c) the inventor's § 115 required statements can be corrected under the new safe harbor provisions, all the tools exist in the new statute to get to the right outcome on inventorship, ownership, and patentability of the obvious variant. This contrasts markedly with the destructive effects of pre-AIA § 102(f), whether it operates as a prior art or a "loss of right to patent" provision. See Leahy-Smith America Invents Act, sec. 3, § 135; 35 U.S.C. § 120 (2006).

have ownership, should issue as a patent.<sup>385</sup> Thus, the AIA affords an inventor not just an alternative to an *OddzOn* defense, which merely destroys what might otherwise be valid patent rights, but a superior option that was clearly engineered by Congress as a means to spare patentability.

### C. *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 [i.e., a filing under the Patent Cooperation Treaty] shall include, or be amended to include, the *name* of the inventor for any invention claimed in the application.”<sup>386</sup> 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. . . .”<sup>387</sup> 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.”<sup>388</sup>

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% 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. Congress accomplished this streamlining to a remarkable degree. As discussed in more detail below, this streamlining includes diminishing to nearly abolishing 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.

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<sup>385</sup> See Leahy-Smith America Invents Act, sec. 3, § 135.

<sup>386</sup> *Id.* sec. 4, § 115(a) (emphasis added).

<sup>387</sup> 35 U.S.C. § 111(b)(1).

<sup>388</sup> Leahy-Smith America Invents Act, sec. 4, § 118 (emphasis added).

## D. *The New and Trivialized "Inventor's Oath" Requirements*

### 1. **Simplified Inventor Documentation Needed Before Allowance**

As just noted, the 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."<sup>389</sup> As § 101 dictates, the named inventor becomes the owner of the patent application, absent an assignment to another person.<sup>390</sup>

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 USPTO mandate inventor identification at the time an application for patent is filed.<sup>391</sup> 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 has concluded.<sup>392</sup> Thus, it appears the USPTO may afford some flexibility in permitting inventor

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<sup>389</sup> *Id.* sec. 4, § 115(a).

<sup>390</sup> *See id.* sec. 3, § 100(f).

<sup>391</sup> The USPTO will administer the new provisions of the AIA by promulgating regulations that will set different timing requirements for naming the inventor (inventor identification) and for filing any required oath or alternative statement from the inventor (inventor documentation). Efficient examination dictates that inventor identification information be supplied by the patent applicant in advance of examination. Nothing in the new statute would be inconsistent with the USPTO interpreting § 115 as requiring an initial identification of the inventor upon filing, with a right to amend continuing throughout the pendency of the patent application.

<sup>392</sup> (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). *Id.* sec. 4, § 115(f).

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 the 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.<sup>393</sup> Thus, use of new § 102(b)'s provisions inherently require that the inventor be identified before substantive examination of the patent application commences. 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) continues aspects of the requirement that the inventor or each joint inventor file an oath, and, like under pre-AIA law, it maintains the “impossibility” exceptions under which the inventor or a joint inventor may be excused from filing an oath with the USPTO.<sup>394</sup> 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 applicant.<sup>395</sup> Under this new

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<sup>393</sup> See *id.* sec. 3, § 102(b).

<sup>394</sup> In its amendments to 35 U.S.C. § 115(d)(2), the AIA sets forth the “permitted circumstances,” 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).

Leahy-Smith America Invents Act, sec. 4, § 115(d)(2).

<sup>395</sup> “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.” *Id.* sec. 4, § 115(a).

exception, the option exists to avoid the filing of a separate oath or declaration.<sup>396</sup> The required inventor documentation can be included in the inventor's assignment of the invention.<sup>397</sup>

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 the USPTO's implementation of the new law takes the fullest possible advantage of its remedial provisions.

## 2. Inventor Documentation: Required Authorization/Confirmation Statements

Assuming the USPTO 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."<sup>398</sup>

The USPTO retains the authority to require additional inventor documentation.<sup>399</sup> However, the self-evident intent of § 115 is that such authority remain unused or be implemented sparingly.<sup>400</sup>

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<sup>396</sup> "(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." *Id.* sec. 4, § 115(e).

<sup>397</sup> *Id.*

<sup>398</sup> *Id.* sec. 4, § 115(b).

<sup>399</sup> *Id.* sec. 4, § 115(c).

<sup>400</sup> "(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)." *Id.*

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 USPTO be other than through an oath.<sup>401</sup> This warning requirement had not been present in earlier iterations of new § 115, e.g., H.R. 2795 (109th Congress), but was added to the end of new § 115 under the AIA.<sup>402</sup>

**E. *Alternative to the Submission of an Oath or Declaration Through a Statement 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.<sup>403</sup> This option is likely to be routinely exercised by patent applicants who 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 USPTO. Given, however, the prospect that no additional formal requirements will be dictated by the USPTO, the vast majority of assignee-owned U.S. patent filings should contain no separate "oath or declaration" as was mandated by pre-AIA § 115. Instead, the filings will have only an assignment filed by the inventor or each joint inventor that authorizes

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<sup>401</sup> "(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." *Id.* sec. 4, § 115(i).

<sup>402</sup> Such a warning statement would appear to be no more warranted in connection with § 115 submissions than 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 the 18 U.S.C. § 1001(a) requirements for candor and forthrightness do not attach to all other submissions made to the USPTO in connection with patent applications. Thus, this requirement should be a candidate for elimination as Congress contemplates technical improvements to the AIA.

<sup>403</sup> Leahy-Smith America Invents Act, sec. 4, § 115(e).

the patent filing and confirms the right to make such an authorization as the inventor or a joint inventor.

**F. *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, and many of which become compelling candidates for retirement under the AIA.<sup>404</sup> 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.<sup>405</sup> The

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<sup>404</sup> See 37 C.F.R. § 1.63 (2011) (The oath or declaration must "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 "acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in § 1.56.").

<sup>405</sup> Under the Leahy-Smith America Invents Act § 115(g)(1), the one-time nature of the requirements is fully addressed:

(1) EXCEPTION.—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;

authorization to file the parent application, by statute, encompasses the right to file any such continuing applications and to expand the scope of protection being sought therein without further inventor authorization.<sup>406</sup>

- The AIA ends the practice of requiring supplemental oaths or declarations from inventors.<sup>407</sup> The USPTO had not only required such supplemental filings to correct mistakes in the originally filed oath, but mandated such supplementation “when a claim is presented for matter

(B) a substitute statement meeting the requirements of subsection (d) was filed in connection with the earlier filed application with respect to the individual; 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.

Leahy-Smith America Invents Act, sec. 4, § 115(g)(1).

<sup>406</sup> Note should be taken that, as part of the legislative process, the USPTO did insist upon the right to have copies of the required statements provided in any continuing application. This requirement appears in the Leahy-Smith America Invents Act, § 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.”

*Id.* sec. 4, § 115(g)(2).

This, again, represents an opportunity for the USPTO not to increase the formalities burden on patent applicants and not to insist on any further requirements via rulemaking.

<sup>407</sup> “(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 requirements of subsection (e) with respect to an application for patent, the Director may not thereafter 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 any patent issuing thereon.” *Id.* sec. 4, § 115(h)(2).

originally shown or described but not substantially embraced in the statement of invention or claims originally presented 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 specifically and improperly refers to an amendment which includes new matter.”<sup>408</sup> This change in the statute operates in tandem with the bar to require a new oath or declaration in connection with any continuing application for patent.<sup>409</sup>

- The AIA ends the practice of requiring an oath or declaration if a reissue patent is sought, including certain requests for broadening reissues.<sup>410</sup> The prohibition on “filing additional statements” specifically applies not only to applications in which the USPTO might impose such a requirement, but also to “any patent issuing” on a patent filing, which necessarily includes patents for which reissue is being sought.<sup>411</sup>
- Although the USPTO’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.”<sup>412</sup>

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<sup>408</sup> See 37 C.F.R. § 1.67 (2011) (Supplemental Oath or Declaration).

<sup>409</sup> See Leahy-Smith America Invents Act, sec. 4, § 115.

<sup>410</sup> See 35 U.S.C § 251 (2006); Leahy-Smith America Invents Act, sec. 20, § 251. Under the America Invents Act Congress provided that “The provisions of this title relating to applications for patent shall be applicable to applications for reissue of a patent,” which would categorically permit the assignee to file for a reissue, but then, as to the other requirements, such as the § 115 requirement, provided a two part exception: “application for reissue may be made and sworn to by the assignee of the entire interest if [1] the application does not seek to enlarge the scope of the claims of the original patent or [2] the application for the original patent was filed by the assignee of the entire interest.” Leahy-Smith America Invents Act, sec. 20, § 251(c). Thus, for a broadening reissue that was *not* filed by the assignee seeking reissue, then either the original applicant for patent must apply for the reissue—either the inventor or the original assignee involved in the patent filing.

<sup>411</sup> See *id.* sec. 4, § 115(h).

<sup>412</sup> *Id.* sec. 4, § 115(h)(1).

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: “(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).”<sup>413</sup>

The aggregate of the statutory framework in § 115 becomes clear only when this savings clause is considered with the other remedial provisions.<sup>414</sup> 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.<sup>415</sup>

The oath or declaration need not be supplied at all until the patent is ready to issue.<sup>416</sup> The USPTO 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.<sup>417</sup> Once filed, the filing date applied regardless of its ultimate fate—whether disclosed, but unclaimed, subject matter was to be made the subject of a claimed invention, or a continuing application would add new disclosure and newly claimed subject matter.<sup>418</sup> Additionally, 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.<sup>419</sup> Thus, although § 115 is not rendered a dead-letter, it comes very close to being a non-letter.

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<sup>413</sup> *Id.* sec. 4, § 115(h)(3).

<sup>414</sup> *See id.*; 35 U.S.C. § 115 (2006).

<sup>415</sup> *See id.* sec. 4, § 115(f) (providing applicant must file required oath or declaration, a substitute statement, or recorded an assignment for patent to issue).

<sup>416</sup> *See id.*

<sup>417</sup> *See id.* sec 4, § 115(b).

<sup>418</sup> *See id.* sec 4, § 115(e).

<sup>419</sup> *See id.*

### G. *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).<sup>420</sup> 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.”<sup>421</sup> It not only provides for an amended naming of the inventor, but for an unrestricted ability to do so.<sup>422</sup> Moreover, it sets no time limitation as to when the application must be amended to comply with the naming requirement.<sup>423</sup> As noted earlier, the sole timing requirement is set out in § 115(f).<sup>424</sup> Congress permitted any required documentation to be provided as late as the time the USPTO is preparing to provide a “notice of allowance,”<sup>425</sup> which occurs at the very end of the substantive examination of the application for patent.

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.”<sup>426</sup> In § 116(c), the phrase “and such error arose without any deceptive intention on his part” was stricken<sup>427</sup> 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 he prescribes.”<sup>428</sup> The same result<sup>429</sup> was achieved in § 256(a), which will now read:

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<sup>420</sup> See *id.* sec 4, § 115(a).

<sup>421</sup> *Id.*

<sup>422</sup> See *id.*

<sup>423</sup> See *id.*

<sup>424</sup> See *id.* sec 4, § 115(f).

<sup>425</sup> *Id.*

<sup>426</sup> See *id.* sec 3, § 135(b).

<sup>427</sup> See *id.* sec 20, § 116(a)(2)(B).

<sup>428</sup> Compare 35 U.S.C. § 116(c) (2006), with *id.* sec 20, § 116.

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.<sup>430</sup>

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.<sup>431</sup> Once it is correctly named, a patent that otherwise would be invalid will be restored to validity, *and a patent that otherwise might be unenforceable will be restored to full enforceability*.<sup>432</sup> The result of this ability to correctly name inventors will be 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.<sup>433</sup>

## VI. 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 USPTO that led to the decision to issue a patent.<sup>434</sup> The new congressional vehicle for accomplishing

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<sup>429</sup> See Leahy-Smith America Invents Act, sec. 20, § 116.

<sup>430</sup> Compare 35 U.S.C. § 256(a), with *id.* sec. 20, § 256.

<sup>431</sup> See *id.* sec. 3, § 100(i); *id.* sec. 4, § 115; *id.* sec. 20, § 116; *id.* sec. 20, § 256.

<sup>432</sup> See *id.* sec. 20, § 256; see also *id.* sec. 3, § 100(i); *id.* sec. 4, § 115; *id.* sec. 20, § 116; 35 U.S.C. § 256.

<sup>433</sup> See Leahy-Smith America Invents Act, sec. 4, § 115; Leahy-Smith America Invents Act, sec. 20, § 256.

<sup>434</sup> See *id.* sec. 12. This provision becomes effective on September 16, 2012, and it applies to all patents, whenever issued. See *id.* sec. 12(c) (“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.”).

this end is found in a new statutory section, § 257, and was christened by its congressional champion as “supplemental examination”.<sup>435</sup>

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.<sup>436</sup> 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.<sup>437</sup>

The creation of supplemental examination implements, at least partially, the National Academies’ recommendation to end the oft-cited “plague” of “inequitable conduct” allegations in patent litigation.<sup>438</sup> The National Academies

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<sup>435</sup> *Id.* sec. 12, § 257. That champion was Senator Orrin Hatch (R-UT), whose active efforts on this issue spanned several Congresses. The direct antecedent for the “supplemental examination” provision in the new § 257 first surfaced in an amendment proposed by Sen. Hatch. *See* S. 1145, 110th Cong. (the Hatch amendment GRA08297, March 14, 2008). This original Hatch proposal would have prevented a court from holding a patent unenforceable based upon possible misconduct in the USPTO if the patent owner agreed to seek reissue of the patent. *See id.* The reissue provisions were structured in a manner so as to assure that any invalid claims would be eliminated from the patent based upon consideration of the missing or incorrect information that formed the predicate for the allegations of possible misconduct. *See id.* Senator Hatch’s “required reissue” proposal would have added a new § 298 to the patent statute. *See id.* While this approach was ultimately abandoned, Senator Hatch’s persistence on this issue resulted in his second-generation proposal, far more wieldy than the original “required reissue” proposal, which he was ultimately successful in having incorporated into the Senate-originated patent reform bill, S. 23, 112th Cong. § 10 (2011). This bill passed the Senate on March 8, 2011. Subsequently, the Hatch provision, together with a further refinement by Rep. Robert Goodlatte (R-VA), was included in the House’s bill, the America Invents Act, H.R. 1249, 112th Cong. § 11 (2011).

<sup>436</sup> *See* Leahy-Smith America Invents Act, sec. 12(a), § 257(c)(1).

<sup>437</sup> *See id.*

<sup>438</sup> Recommendation six in the National Academies’ report, titled *A Patent System for the 21st Century*, called for a “modif[ication] or remov[al] [of] the subjective elements of litigation,” describing the problem the “inequitable conduct” defense presents in patent litigation as follows:

were not the only entities that sought to address concerns over the fact that most important patent infringement litigation of the pre-AIA era was infected with “inequitable conduct” allegations.<sup>439</sup> The United States Court of Appeals for the Federal Circuit has developed a similar antipathy to the promiscuous use of the defense.<sup>440</sup> 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.<sup>441</sup>

In part, the inability of Congress to eliminate the defense altogether through the AIA was more political than rational policy. Most regrettably, some

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[a]mong 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 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.

A PATENT SYSTEM FOR THE 21ST CENTURY, *supra* note 342, at 7.

<sup>439</sup> See, e.g., *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1289 (Fed. Cir. 2011) (quoting *Burlington Indus., Inc. v. Dayco Corp.*, 849 F.2d 1418, 1422 (Fed. Cir. 1988)).

<sup>440</sup> See *id.* (explaining inequitable conduct “plague” both in courts and throughout entire patent system).

<sup>441</sup> See Patent Reform Act of 2008, S. 3600, 110th Cong. § 11(a) (2008) (providing under a new 35 U.S.C. § 298 that the defense would be entirely preempted as a defense to the enforceability of a patent).

of the proponents for keeping an “inequitable conduct” defense viable were leading patent litigators within the patent bar itself.<sup>442</sup>

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, patents with both narrow claims that are valid but also broader claims procured by intentionally withholding or misstating critical information that, had the patent examiner been aware of it, would have prevented a valid patent from being granted on the broader claims.<sup>443</sup> In part, the “scarecrow” patent concern ultimately led the ABA Intellectual Property Law (IPL) Section to abandon its position that the “inequitable conduct” defense should be effectively removed from all patent litigation.<sup>444</sup>

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<sup>442</sup> See Agenda for 21st Century Patent Reform, *supra* note 343, at 11.

<sup>443</sup> See *id.* at 14, 15; AMERICAN BAR ASSOCIATION SECTION OF INTELLECTUAL PROPERTY LAW, A SECTION WHITE PAPER: AGENDA FOR 21ST CENTURY PATENT REFORM 19, 20 (May 1, 2007). While this hypothetical may appear strained in the extreme, it actually was offered in debates within the organized patent bar over 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 by declaring something already unenforceable, on account of its invalidity, additionally unenforceable on account of misconduct. Hence, this 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.

<sup>444</sup> The ABA IPL Section adopted a position on March 14, 2008, supporting the Hatch amendment “required reissue” proposal. See AMERICAN BAR ASSOCIATION SECTION OF INTELLECTUAL PROPERTY LAW, PAST ACTION BOOK 2010-2011 19-20 (2010). Under that position, 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 misconduct was suspected agreed to seek reissue of the patent to consider the information that had been omitted or misstated in the original examination

But, because of the manner in which the AIA rebalanced the operation of the patent system,<sup>445</sup> any real prospect of a true “scarecrow” patent wrongfully frightening competitors away from a particular field of invention has disappeared.<sup>446</sup> Perhaps the demise of “scarecrow” patenting may encourage

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record. *Id.* at 19. Unfortunately, a step backward by the IPL Section came several months later:

. . . Section of Intellectual Property Law 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.

*Id.* at 21.

<sup>445</sup> 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. *See supra* Part I.A–B. 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. *See supra* Part I.A–B. 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. *See supra* Part I.C. And then, once the patent issues, the public can again return to the USPTO and seek cancellation of any overly broad claims. *See infra* Parts VI.B-D, VII.A-B. This can be done based upon publicly available information that might not have been theretofore considered by the USPTO or a violation of one of the objective standards for patentability. *See infra* Parts VI.B-D, VII.A-B. 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 their overly broad claims cannot be sustained.

<sup>446</sup> 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. *See infra* Parts VI.B-D, VII.A-B. 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, can

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 the "scarecrow" issue has been discredited and distinguished proponents of further reforms are among the abolitionists.<sup>447</sup>

### A. *The New Mechanism for Supplemental Examination*

Procedurally, supplemental examination has a simple structure.<sup>448</sup> A patent owner may seek supplemental examination in order to allow the USPTO

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determine the validity of a patent. *See infra* Parts VI.B-D, VII.A-B. Validity dependent upon publicly accessible information can be ascertained 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.

<sup>447</sup> Subsequent to the issuance of the National Academies' report, Dr. Richard Levin put a finer point on the Academies' recommendation to eliminate subjective elements—such as allegations of willful infringement and allegations of fraud or other inequitable conduct—as grounds for patent unenforceability in litigation. Dr. Levin, one of the co-chairs of the National Academies' study, 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." Conference on Patent Reform, National Academy of Sciences, Washington, D.C., June 9, 2005, at 101-102.

<sup>448</sup> The USPTO is given authority to levy fees upon the request for supplemental examination and to promulgate more detailed rules for requests and procedural review:

(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.

to consider, reconsider, or correct information that is or may be relevant to the patent.<sup>449</sup> The USPTO must conduct supplemental examination within a three-month window after the patent owner makes the supplemental examination request.<sup>450</sup> A supplemental examination automatically concludes on or before the three-month statutory deadline.<sup>451</sup> Upon termination, the USPTO must provide a certificate in which the USPTO indicates whether any information provided during the supplemental examination raises a “substantial new question of patentability,” the standard under Chapter 30 for the USPTO to institute an ex parte reexamination of a patent.<sup>452</sup>

If no new substantial question of patentability is found, the entire procedure is completed.<sup>453</sup> 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.<sup>454</sup> This new type of reexamination is instituted to address each substantial new question of patentability uncovered during the

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(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.

Leahy-Smith America Invents Act, sec. 12, § 257(d).

<sup>449</sup> See *id.* sec. 12, § 257(a) (“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.”).

<sup>450</sup> See *id.*

<sup>451</sup> See *id.*

<sup>452</sup> See *id.* (“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.”).

<sup>453</sup> See *id.*

<sup>454</sup> See *id.* sec. 12, § 257(b).

supplemental examination.<sup>455</sup> 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.<sup>456</sup>

**B. *Consequences on Enforceability of a Patent Following Supplemental Examination***

A patent owner that elects supplemental examination, owns a patent that survives the procedure, and has his or her remaining patent claims reconfirmed as valid over new or corrected information, is rewarded with a heightened expectation 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.<sup>457</sup>

The procedure provides an incentive for patent owners who determine that errors or omissions may have existed in the patent procurement record before the USPTO to take action to remedy any potential deficiencies.<sup>458</sup> It equally

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<sup>455</sup> *See id.* ("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.").

<sup>456</sup> *See id.*; 35 U.S.C. § 307(a) (2006) ("The director will 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.").

<sup>457</sup> Leahy-Smith America Invents Act, sec. 12, § 257(c)(1).

<sup>458</sup> *See id.*

assures the public that the full patent examination record, as supplemented under new § 257, will be more complete and more accurate.<sup>459</sup> The procedure further assures that the resulting patent will be limited only to claimed inventions that have been twice determined to be fully patentable, with the second determination based upon the enhanced examination record.<sup>460</sup> Moreover, it allows any material fraud in connection with the procurement of the patent to be addressed, as appropriate,<sup>461</sup> and assures that no conflict can exist between the remedy given under supplemental examination and the other consequences which flow from actual misconduct before the USPTO.<sup>462</sup>

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<sup>459</sup> See *id.*; 35 U.S.C. § 307(a).

<sup>460</sup> See Leahy-Smith America Invents Act, sec. 12, § 257(c)(1); *id.* sec. 12, § 257(b).

<sup>461</sup> The Director is given authority to make referrals to the Attorney General in situations where a material fraud has been detected.

(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.

See *id.* sec. 12, § 257(e).

<sup>462</sup> Under Leahy-Smith America Invents Act, sec. 12, § 257(f), the following interface is created between supplemental examination's remedies and other consequences flowing from misconduct before the USPTO:

Nothing in this section shall be construed—

The other key feature of 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*.<sup>463</sup> It includes, for example, such allegations appearing in a pleading seeking a *declaratory judgment* of patent unenforceability.<sup>464</sup> Alternatively, such allegations may arise in litigation under the Drug Price Competition and Patent Term Restoration Act of 1984<sup>465</sup> in situations where such allegations have been made in a so-called “Paragraph IV Notice”<sup>466</sup> by a person seeking approval to market a generic version of a new drug through an abbreviated approval process, e.g., an abbreviated New Drug Application.<sup>467</sup>

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(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.

<sup>463</sup> See *id.* sec. 12, § 257(c)(2)(A).

<sup>464</sup> See *id.*

<sup>465</sup> See Drug Price and Patent Term Restoration Act of 1984, sec. 201, § 156, 98 Stat. 1585, 1598-1602.

<sup>466</sup> See Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 355(j)(2)(B)(iv)(II) (2006).

<sup>467</sup> “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. See *id.* If a patent is

The second exception relates to conduct by the patent owner, and applies to situations in which the patent owner is enforcing the patent.<sup>468</sup> It requires that the supplemental examination, and any ordered reexamination, be entirely complete before the patent is enforced.<sup>469</sup> 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.<sup>470</sup>

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believed to be invalid or not infringed, the notice required is the so-called Paragraph IV Notice that may contain allegations of unenforceability.

<sup>468</sup> Leahy-Smith America Invents Act, sec. 12, § 257 (c)(2)(B).

<sup>469</sup> *Id.*

<sup>470</sup> The text of the two exceptions, Leahy-Smith America Invents Act, sec. 12, § 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.

C. *Use of Supplemental Examination by Patent Owners: The Public Benefit*

The new § 257 should encourage greater candor on the part of patent applicants dealing with patent examiners by lessening the imperative to provide to the USPTO massive quantities of prior art of relatively marginal relevance for review. It should also temper the phobia that exists with respect to offering any characterization of the importance or relevance of any of the prior art so supplied. Patent practitioners are attracted to the phenomenon of “over-disclosure” and “under-explanation” of prior art because of the fear of later contentions of willful misconduct. Through “over-disclosure” and “under-explanation,” practitioners can limit the areas in which it can later be alleged that an error was made in a characterization of the prior art or an omission was made of an item of prior art of significant relevance.

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 developing a patented invention for commercial use. It should also help a patent owner seeking to bring an invention to commercial life, but needing outside investors to supply the necessary capital. In either situation, where due diligence yields potential issues of validity or even enforceability based on apparent errors or omissions in the original examination of the patent, new § 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 deficiencies 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.<sup>471</sup> However, the benefits for the public are equally compelling. For the relatively important patents that may return for a supplemental examination, the USPTO will be afforded a second opportunity to eliminate claims in the patent that should not have been issued.<sup>472</sup> It is certain that such patents will receive careful

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<sup>471</sup> See *id.* sec. 12, § 257.

<sup>472</sup> See *id.*

scrutiny.<sup>473</sup> The net consequence of such scrutiny is the public having greater confidence that the fuller and more accurate record, before the USPTO, has produced very carefully examined patents that deserve respect.

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

The broad availability of supplemental examination, coupled with its rapid timeline, affords the USPTO the ability to offer applicants new and creative patent prosecution options that make use of the availability of supplemental examination.<sup>474</sup> One such option merits consideration.

For a patent applicant desiring that the USPTO consider a substantial number of potentially relevant items that might qualify as prior art, the USPTO 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 USPTO and affirmed as raising no substantial question of patentability.

Rulemaking might provide that patent applicants be permitted to defer submission, to the USPTO, of all tier two items until either after the notice of allowance 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 required 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 USPTO any tier two items only after allowance or issuance, the applicant would be deemed, by the USPTO, to have requested supplemental examination with respect to such tier two items immediately upon grant of the patent.

Again by regulation, the USPTO 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

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<sup>473</sup> See *id.*

<sup>474</sup> See *id.* sec. 12, § 257(a)-(c).

reexamination required some modification of the claims of the patent.<sup>475</sup> In such a case, all required fees for supplemental examination would fully apply.<sup>476</sup>

The impact of such a procedure, in the vast majority of circumstances, would be a more efficient initial examination of the application for patent, because of the more focused and complete assessment of the possible prior art provided by the patent applicant. Additionally, 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.<sup>477</sup>

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.<sup>478</sup> If any material prior art were identified in tier two, such that the patent claims required modification, then the patent applicant could not be subject to unenforceability for misconduct later, *but would pay the full-freight fees for the supplemental examination/reexamination.*<sup>479</sup>

While the USPTO 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 USPTO would not have the benefit of the required characterization of the significance of the tier one items.

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<sup>475</sup> See *id.* sec. 12, § 257(d).

<sup>476</sup> See *id.*

<sup>477</sup> See *id.* sec. 12, § 257(a).

<sup>478</sup> See *id.* sec. 12, § 257(b).

<sup>479</sup> See *id.* sec. 12, § 257(d).

## VII. DECEPTIVE INTENTION LIMITATIONS ON REMEDIAL ACTION: CONGRESSIONAL REPEAL

During the 175 years following enactment of the Patent Act of 1836,<sup>480</sup> Congress provided that “deceptive intention” on the part of the patent applicants and patent owners be taken into account in order to determine whether or not certain remedies would be available or remedial actions might be taken.<sup>481</sup> Until the 1952 Patent Act, the statutory language was double-barreled, specifically referencing “fraudulent or other deceptive intention.”<sup>482</sup> The provisions appeared in the statute in a hit-or-miss fashion.<sup>483</sup> It was difficult to justify their appearance in some, but not other, specific sections of the patent statute.

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<sup>480</sup> See Patent Act of 1836, § 13, 5 Stat. 117, 122 (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).

<sup>481</sup> See *id.*

<sup>482</sup> No congressional fanfare accompanied the deletion of the specific reference to “fraudulent” activities. See Federico, *supra* note 150, 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.”).

<sup>483</sup> As an example, the Patent Act of 1870, § 54, 16 Stat. 198, 206, provided the ability to disclaim parts of a patent that were overly broad, but the right to disclaim was limited, i.e., “whenever, 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

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.<sup>484</sup> Under this statute, the USPTO’s ability 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 . . . .”<sup>485</sup> 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.”<sup>486</sup>

It appears that during the 60 years that these “deception intention” provisions, §§ 184-185, 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

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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).

<sup>484</sup> 35 U.S.C. § 184 (1952).

<sup>485</sup> *Id.* (emphasis added).

<sup>486</sup> *Id.* § 185 (emphasis added).

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.<sup>487</sup>

However, the wholesale removal of references to “deceptive intention” from *all* provisions of the statute 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.<sup>488</sup> Although later recanting its views on the subject, the American Bar Association’s IPL Section was adamant that all of the “deception intention” provisions in Title 35 merited repeal and its bold position was instrumental in the efforts that resulted in Congress reviving this reform in the legislative text.<sup>489</sup>

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<sup>487</sup> 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.

<sup>488</sup> See A PATENT SYSTEM FOR THE 21ST CENTURY, *supra* note 342, at 7.

<sup>489</sup> See AGENDA FOR 21ST CENTURY PATENT REFORM, *supra* note 443, at 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.”). 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

Under the AIA, Congress repealed all such provisions.<sup>490</sup> 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.

**A. *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.<sup>491</sup> 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.<sup>492</sup>

The amended reissue statute, with the "deceptive intention" provision stripped away, will complement the new opportunity for supplemental examination.<sup>493</sup> Unlike supplemental examination, the new reissue procedure

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intent' that must be addressed in order for an inventor to take some remedial action or to seek certain types of relief."). *See id.* at 24.

<sup>490</sup> *See* Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 20(l), 125 Stat. 284, 333-35 (2012). 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." *Id.* This repeal, thus, applies to all supplemental examinations, appeals, ex parte examinations and reexaminations, and non-USPTO proceedings commencing on or after September 16, 2012. *Id.*

<sup>491</sup> *See* Patent Act of 1836, § 13, 5 Stat. 117, 122; 35 U.S.C. § 251 (2006).

<sup>492</sup> Leahy-Smith America Invents Act, sec. 20(d)(1), § 251 .

<sup>493</sup> *See id.* sec. 12, § 257.

will permit a patent owner, within two years after the patent issues, to enlarge the scope of the claims contained in the original patent.<sup>494</sup>

Like other “deceptive intention” provisions, this one operated to preclude a patent owner from seeking a remedy in circumstances where the patent owner was the victim, rather than the perpetrator, of the deception.<sup>495</sup> 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.<sup>496</sup> Because of these corrections, the public will have the benefit—as with supplemental examination—of a patent twice examined for patentability, the second time with the assistance of a supplemented examination record that ought to provide the public enhanced assurance that the patent merits respect.

Moreover, it should be possible to make simultaneous use of both reissue and supplemental examination. The AIA appears to allow the USPTO to take coordinated action in situations where the patent owner is seeking both reissue and supplemental examination.<sup>497</sup> Indeed, it is foreseeable that the USPTO, if it finds a substantial new question of patentability at the termination of the supplemental examination of a patent for which a reissue application is pending, would treat *de facto* the reissue and reexamination required as a single proceeding it could conduct concurrently.

Generally, 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

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<sup>494</sup> See *id.* sec. 20(d)(4), § 251 (“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.”).

<sup>495</sup> See 35 U.S.C. § 251.

<sup>496</sup> See Leahy-Smith America Invents Act, sec. 20(d)(1), § 251.

<sup>497</sup> 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.” *Id.* sec. 6(a), § 315.

patent owner is not broadening the claims of the patent. Any assignee-sought patent can now be reissued by the assignee:

(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.<sup>498</sup>

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.<sup>499</sup> For patent owners, reissue will be available, therefore, provided compliance with the two-year broadening limit and the existing “error” requirement, 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.<sup>500</sup>

### **B. *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 read as follows:

~~Whenever, without any deceptive intention,~~ a claim of a patent is invalid the remaining claims shall not thereby be rendered invalid.<sup>501</sup>

~~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.<sup>502</sup>

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<sup>498</sup> See *id.* sec. 4, § 251; *id.* sec. 20 § 251.

<sup>499</sup> See *id.* sec. 4, § 115.

<sup>500</sup> See *id.*; *id.* sec. 20, § 251.

<sup>501</sup> *Id.* sec. 20, § 253.

<sup>502</sup> *Id.* sec. 20, § 288.

The first of these two provisions, at last, completely overrules an ancient common law rule that a patent must be regarded as either wholly valid or wholly invalid.<sup>503</sup> Federico noted that the 1952 Patent Act introduced what he characterized as “radical changes” that “completely change” the status of “disclaimer” provisions that had been in the patent law since 1837, i.e., in part by removing a requirement relating to unreasonable neglect or delay in pursuit of a disclaimer.<sup>504</sup> However, Federico noted *en passant* that Congress had maintained the bar 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

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<sup>503</sup> See *id.* sec. 20, § 253.

<sup>504</sup> The Patent Act of 1870 indicates the complexity of the law on “disclaimer” provisions prior to the 1952 Patent Act:

SEC. 54. *And be it further enacted*, That whenever, 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. . . . 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.*”

Patent Act of 1870 § 54 (emphasis added); see also Federico, *supra* note 150, at 208.

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 . . . .<sup>505</sup>

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.<sup>506</sup> 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.<sup>507</sup>

In barring the unenforceability of a patent in the original examination and jettisoning all references to “deceptive intention” from the patent statute—Congress 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 misconduct that occurred before the USPTO contaminated the litigation itself.<sup>508</sup> Otherwise, Congress has directed

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<sup>505</sup> Federico, *supra* note 150, at 208 (emphasis added).

<sup>506</sup> See Leahy-Smith American Invents Act, sec. 20, § 253; *id.* sec. 20, § 288.

<sup>507</sup> See Federico, *supra* note 150, at 208 (emphasis added).

<sup>508</sup> See *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 815 (1945) (representing the residuum of the unenforceability doctrine for fraud or other inequitable conduct). The Supreme Court based its finding of unenforceability in *Precision Instrument* on the “equity court’s use of discretion in refusing to aid the *unclean litigant*.” *Id.* (emphasis added). Thus, a threshold requirement exists that there must be fraud perpetrated by the litigant itself, namely by the plaintiff-patent owner committing or affirmatively directing the fraudulent conduct. Moreover, the fraud must involve otherwise some form of litigation fraud, that is alleged fraud or other inequitable conduct likewise that plays out in contentions or other conduct before the court. This was clearly the situation the Supreme Court found in *Precision Instrument*: “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

that, irrespective of issues of possible “deceptive intent,” a partially valid patent is to be treated as an enforceable patent to the extent its claims are found to be valid.

### VIII. 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, 21st century U.S. patent law will bear little relationship to its 19th and 20th century counterparts.<sup>509</sup> Gone forever is a patent system grounded on bizarrely complex and opaque considerations that for nearly two centuries determined if a patent might be valid.

The USPTO thus has the opportunity to optimize its operations by seizing all of the advantages of the simplicity that the new law affords. It can drop the pretense of examining for “best mode” compliance.<sup>510</sup> It can pare formalities and make it simple for assignee-applicants to supply the inventor’s authorization/affirmation.<sup>511</sup> It can open its procedures on correcting inventor naming to assure that proper patent ownership is beyond question.<sup>512</sup>

Perhaps most importantly, though, the USPTO can and should rethink the duty of disclosure placed upon patent applicants, particularly with respect to information available to the public. Supplemental examination holds the opportunity of opening patent applications to a more forthcoming dialogue between applicant and examiner. A proper reworking of the USPTO’s own rules on disclosure is needed to end the era in which over-loading the examiner with information, and then under-analyzing this information overload as to possible relevance to the patent examination, is the best way to protect the applicant’s interests.

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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).

<sup>509</sup> See *supra* Part I.B-C.

<sup>510</sup> See *supra* Part IV.

<sup>511</sup> See *supra* Part V.D.

<sup>512</sup> See *supra* Part V.G.

How might this be done? The USPTO should consider six coordinated reforms:<sup>513</sup>

- Imposing no incremental duty or responsibility on anyone appearing before the USPTO 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 USPTO, such information must have particular significance and its relevance must be identified.
- Providing that any individual's duty or responsibility to supply information to the USPTO 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 duty or responsibility to provide to the USPTO non-public information solely to information required to reach an accurate and correct determination of the issue before the USPTO.
- Stating by rule that information available to the public, but not cited by the USPTO, is to be deemed to have been considered by the USPTO, but found to be of no relevance.

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

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<sup>513</sup> See Letter from Robert A. Armitage, Senior Vice President, Eli Lilly & Company, to The Honorable David J. Kappos, Under Sec'y of Commerce for Intellectual Prop. & Dir. of the U.S. Patent & Trademark Office, (Sept. 19, 2011) at [http://www.uspto.gov/patents/law/comments/x\\_ac58-e\\_elililly\\_20110919.pdf](http://www.uspto.gov/patents/law/comments/x_ac58-e_elililly_20110919.pdf) (proposing a replacement for 37 C.F.R. § 1.56 together with a rationale for its promulgation).

## IX. CONCLUSIONS

The America Invents Act has made many significant changes to the patenting landscape in the United States. It is a giant step toward 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 like 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 has run 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*.