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Article

**MODE, METHOD, MADNESS, AND MAYHEM: SECTION 15 OF THE LEAHY-SMITH AMERICA INVENTS  
ACT**

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I.	Introduction	272
II.	The Genealogical Tree of Best Mode	272
III.	AIA's Best Mode Boondoggle	276
IV.	The PTO Enforcing Best Mode Under the AIA: A Childhood Fantasy	279
V.	Has the AIA Turned Best Mode into Ashes?	279
	A. Rule 1.105	280
	B. Criminal Prosecution	282
	C. Ethical Violations	283
	D. Professor Vacca's Limitations	284
VI.	The Unspoken Solution	287
VII.	The Unbalanced Act	287
VIII.	What the Courts Giveth, Only the Courts Shall Taketh Away!	289
IX.	Violating the Constitution	291
X.	The Tea Party Revisited	293
XI.	To the Best Mode's Critics-That Dog Don't Hunt	294
	A. Uniquely American	294
	B. Technologically Irrelevant	295
	C. The Lack of Redundance	295
	D. Litigation Costs	296
XII.	Conclusion-The Phoenix Rises	299

## **\*272 I. Introduction**

The biggest revision in American patent law in nearly six decades, the Leahy-Smith America Invents Act (AIA), Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified as amended in scattered sections of 35 U.S.C.), was signed into law by President Obama on September 16, 2011.<sup>1</sup> Despite six years and numerous unsuccessful bills attempting to reform this country's patent system,<sup>2</sup> Congress finally passed what has been called a compromised bill.<sup>3</sup> The word "compromise" could not be more descriptive for section 15 of the statute. Congress allowed to continue the requirement that inventors must specify in a patent application the best mode or method for their inventions<sup>4</sup> as inventors have been required to do for over 150 years. However, Congress also provided that the failure to reveal a patent's best mode does not render the patent invalid, or subject to challenge during litigation.<sup>5</sup> This unnecessary conflict can be resolved with only one solution which certain interests, including Congress, will find extremely distasteful.

## **II. The Genealogical Tree of Best Mode**

To understand the meaning and significance that the best mode doctrine has to patents, an examination of the doctrine's roots is warranted. Patent law owes its origin to Article I, Section 8, Clause 8 of the United States Constitution, which provides Congress with the power "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their Writings and Discoveries." From this constitutional authority, Congress enacted the first patent statute in 1790.<sup>6</sup> Under section 2 of the Patent Act of 1790,<sup>7</sup> the patentee was required to disclose with sufficient description:

[N]ot only to distinguish the invention or discovery from other things before known and used, but also to enable a workman or other person skilled in the art or manufacture . . . to make, construct, or use the same, to the end that the public may have the full benefit thereof, after the expiration of the patent term.<sup>8</sup>

Section 6 of the Act provided what has been termed the "whole of the truth" defense.<sup>9</sup> This provision allowed an alleged patent infringer to prevail if the specifications did not reveal all the information concerning the invention, or contained more information than was "necessary to produce the effect described."<sup>10</sup> The defense required that the concealment or the surplus information mislead so the \*273 described process could not be reproduced by the methods set forth in the patent.<sup>11</sup> Thus, sections 2 and 6 required that a patentee reveal all details concerning an invention, concealing nothing from the public that would allow for the full enjoyment of the invention after the expiration of the patent.

The 1790 Act was quickly replaced by the Patent Act of 1793.<sup>12</sup> This statute provided that a written description of the invention "in such full, clear and exact terms, as to distinguish the same from all other things before known, and to enable any person skilled in the art . . . to make, compound, and use the same."<sup>13</sup> The Act also provided that "in the case of any machine, [the patentee] shall fully explain the principle, and the several modes in which he has contemplated the application of that principle or character, by which it may be distinguished from other inventions."<sup>14</sup>

The "whole of the truth" defense was modified in Section 6 of the statute, allowing an alleged infringer to now plead the "whole of the truth" defense.<sup>15</sup> If the defense was successful, the patent would be found to be void.<sup>16</sup> The defense required proof that the specification did "not contain the whole truth relative to [the patentee's] discovery, or that it contain[ed] more than [was] necessary to produce the described effect, which concealment or addition shall fully appear to have been made, for the purpose of deceiving the public."<sup>17</sup> The infringer was no longer required to prove that the described process would not be obtained through the method specified in the patent.<sup>18</sup> The Act shifted the "whole of the truth" defense to the question of whether the patentee intended to mislead the public.<sup>19</sup>

Forty-three years later, the Patent Act of 1836<sup>20</sup> modified the "whole of the truth" defense by removing the penalty that the patent be declared void upon successfully proving the defense.<sup>21</sup> Twenty-one years later, in *Page v. Ferry*,<sup>22</sup> the court noted that "[t]he patentee is bound to disclose in his specifications the best method of working his machine known to him at the time of his application. An infringement will not have taken place, unless the invention can be practiced completely by following the specifications."<sup>23</sup> The court stated that the "specification is intended to teach the public the improvement patented; it must fully \*274 disclose the secret; must give the best mode known to the inventor, and contain nothing

defective, or that would mislead artists of competent skill in the particular manufacture.”<sup>24</sup> In *Page*, the best mode doctrine sprouted, but was not yet codified by statute.<sup>25</sup>

Although *Page* recognized the doctrine, it was not until the Patent Act of 1870 that the term “best mode” was first codified.<sup>26</sup> Section 26 of the statute required that a patent applicant for a machine explain not only the principle of the invention, but also the best mode that the patentee felt applied to the invention. The applicant was required to explain how the invention could be differentiated from other inventions.<sup>27</sup> Under the Act, best mode was restricted only to machines.<sup>28</sup> The statute kept the “whole of the truth” defense that was the basis for the separate best mode requirement until 1870.<sup>29</sup>

Congress again amended this country’s patent laws with the Patent Act of 1952.<sup>30</sup> Under section 112 of the statute, Congress again codified best mode, providing that:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.<sup>31</sup>

Under the statute, best mode was no longer restricted to machines.<sup>32</sup> The doctrine now applied to all inventions. The failure to satisfy section 112, which included the disclosure of best mode, would invalidate the patent.<sup>33</sup> The 1952 Act also eliminated the “whole of the truth” defense.<sup>34</sup> Although enablement and best mode were initially analyzed in tandem, the Court of Customs and Patent Appeals clarified that the doctrines were separate and distinct requirements. The court stated:

The essence of [the enablement requirement] is that a specification shall disclose an invention in such a manner as will enable one skilled in the art to make and utilize it. Separate and distinct from [enablement] is [the best mode requirement], the essence of which requires an inventor to disclose the best mode contemplated by him, as of the time he executes the application, of carrying out his invention. Manifestly, the sole purpose of this latter \*275 requirement is to restrain inventors from applying for patents while at the same time concealing from the public preferred embodiments of their inventions which they have in fact conceived.

. . . The question of whether an inventor has or has not disclosed what he feels is his best mode is, however, a question separate and distinct from the question of the sufficiency of his disclosure to satisfy the requirements of [enablement].<sup>35</sup>

The United States Court of Appeals for the Federal Circuit clarified this explanation, stating that:

Enablement looks to placing the subject matter of the claims generally in the possession of the public. If, however, the applicant develops specific instrumentalities or techniques which are recognized at the time of filing as the best way of carrying out the invention, then the best mode requirement imposes an obligation to disclose that information to the public as well.<sup>36</sup>

The purpose of the best mode is for the “patent applicant [to] play[] ‘fair and square’ with the patent system.”<sup>37</sup> Logically, patentees should not receive the constitutionally protectable right to exclude, for a limited time,<sup>38</sup> the public “while at the same time concealing from the public [the] preferred embodiments of their inventions.”<sup>39</sup> As one scholar has explained, “the patentee should not be able to obtain the benefits of a patent while maintaining part of the invention as a trade secret--the antithesis of a patent.”<sup>40</sup> The best mode doctrine is entirely sensible as it helps “create a level playing field” allowing the public and competitors to fairly compete after the patent’s expiration.<sup>41</sup> The failure to make such a revelation violates the “limited Times” requirement of Article I, Section 8, Clause 8 of the Constitution. The 1952 Patent Act provided under section 282 that a patent would be invalid for failure to comply with any requirement of section 112.<sup>42</sup> Not only would the failure to disclose invalidate the patent, the intentional failure to satisfy the best mode requirement also served as inequitable conduct rendering the patent unenforceable.<sup>43</sup>

Compliance with the best mode doctrine involves a two-step analysis.<sup>44</sup> The first inquiry is subjective.<sup>45</sup> One looks to see whether the inventor, at the time the patent application is filed, “knew of a mode of practicing his claimed invention that \*276 he considered to be better than any other.”<sup>46</sup> If the first prong of the analysis is satisfied, the second prong, which is objective, is then examined.<sup>47</sup> This prong determines whether the inventor knew that there was adequate disclosure so as “to enable one skilled in the art to practice the best mode.”<sup>48</sup>

One question that arose surrounding the best mode doctrine “was whether an employer, who was the assignee of the patent, would have its knowledge of a preferred embodiment imputed to the employee/inventor and therefore violate the best mode if this preferred embodiment was not adequately disclosed.”<sup>49</sup> In rejecting the imputing theory, the Federal Circuit held that “[t]he statutory language [of section 112] could not be clearer,”<sup>50</sup> the inventor must disclose the best mode contemplated.<sup>51</sup>

A second issue concerning best mode was whether the patentee had to signify the best mode of several possible methods.<sup>52</sup> In *Randomex, Inc. v. Scopus Corp.*,<sup>53</sup> the Federal Circuit held that disclosure of the best mode among other possible modes satisfies section 112.<sup>54</sup>

A third issue concerned the scope of the doctrine: “[I]s best mode limited to the elements listed in the claims or does it require the inventor to disclose the best mode relating to unclaimed elements of the invention?”<sup>55</sup> This question remains unanswered.<sup>56</sup>

Thus, the historical jurisprudence of the best mode doctrine demonstrates that the doctrine requires both a subjective and objective inquiry. The best mode must be disclosed at the time the patent application is filed and is to be examined from the perspective of the inventor. Furthermore, best mode does not have to be specifically labeled in the patent’s application.<sup>57</sup>

### III. AIA’s Best Mode Boondoggle

In 2005, a bill was introduced in the House of Representatives that sought to reform the patent laws in this country by, among other things, eliminating best mode.<sup>58</sup> The bill died, however, in the Judiciary Committee.<sup>59</sup> In 2006, the Senate \*277 offered its own reforms, but did not modify the best mode doctrine.<sup>60</sup> This bill too died in committee.<sup>61</sup> A 2007 House bill kept the best mode requirement for patentability, but removed the best mode as a defense in litigation and cancellation of claims.<sup>62</sup> The House Judiciary Committee Report noted concerns that best mode was uniquely American, inherently subjective, and technologically irrelevant.<sup>63</sup> The bill passed the House, but died in the Senate.<sup>64</sup> The Senate introduced its own patent reform bill in 2007.<sup>65</sup> However, the bill was silent regarding best mode.<sup>66</sup> While the Senate bill was being debated, Judiciary Committee members noted that the Committee was working with interested parties to develop a solution to the best mode doctrine.<sup>67</sup> Best mode became a consideration of Congress due to the lobbying efforts of interested parties.<sup>68</sup> However, the bill died without a vote.<sup>69</sup>

In 2009, the Senate introduced yet another patent reform bill with a modified best mode requirement.<sup>70</sup> Under the bill, best mode was no longer a defense in litigation or a basis for cancellation of the patent.<sup>71</sup> The Senate Judiciary Committee Report cited the problems with best mode, yet recognized the importance of full disclosure to the patent system.<sup>72</sup> Despite the Senate adopting the 2007 position of the House, the House’s 2009 patent reform bill did not eliminate best mode as a defense in litigation.<sup>73</sup> The Senate bill was not voted upon, and the House bill died in committee.<sup>74</sup>

After years of attempted compromises, patent reform was finally enacted in 2011 with the passage of the AIA. The change to the best mode doctrine is found in section 15 of the AIA. The statute provides:

(a) In General.--Section 282 of title 35, United States Code, is amended in the second undesignated paragraph by striking paragraph (3) and inserting the following:

“(3) Invalidity of the patent or any claim in suit for failure to comply with?

\*278 “(A) any requirement of section 112, except 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; or

“(B) any requirement of section 251.”.

(b) Conforming Amendment.--Sections 119(e)(1) and 120 of title 35, United States Code, are each amended by striking “the first paragraph of section 112 of this title” and inserting “section 112(a) (other than the requirement to disclose the best mode)”.

(c) Effective Date.--The amendments made by this section shall take effect upon the date of the enactment of this Act and shall apply to proceedings commenced on or after that date.<sup>75</sup> Thus, as of September 16, 2011, section 15 eliminated best mode as a basis of asserting invalidity, inequitable conduct, or cancelling any, or all claims, of a patent while, at the same

time, still requiring in 35 U.S.C. § 112 that best mode be disclosed.<sup>76</sup> The result is that patent applications must disclose the best mode to a patent. However, the failure to reveal best mode, even if intentional, does not invalidate the patent.

The report from the House Judiciary Committee on the AIA notes that the elimination of best mode as a defense to patent infringement was based on the fact that best mode was unique to the United States, inherently subjective, and often irrelevant.<sup>77</sup> Congress therefore agreed with best mode critics, yet compromised by still requiring the revelation of the best mode without the consequences of failure to do so.<sup>78</sup> Congress recognized, however, that disclosure is an “important tradeoff that underlies the patent laws: the grant of a limited-term monopoly in exchange for disclosure of the invention.”<sup>79</sup> Thus, prior to the AIA, a patent applicant could file a patent application, conceal the best mode, and the United States Patent and Trademark Office (PTO) could reject the application upon catching the error.<sup>80</sup> If the PTO failed to discover the concealment, then the option to declare the patent invalid or unenforceable still remained available via litigation.<sup>81</sup> Section 15 now provides that a patent applicant, who conceals the patent’s best mode, need only worry that the PTO does not discover the concealment. If the PTO fails to discover the fraud, the patent applicant is home free as the patent cannot be declared invalid or unenforceable in a litigation proceeding based upon the failure to disclose the best mode. The AIA has now created an incentive for patentees to conceal the best \*279 mode, given the unlikelihood that the PTO will ever discover the deception.<sup>82</sup>

#### **IV. The PTO Enforcing Best Mode Under the AIA: A Childhood Fantasy**

Although the threat of rejection by the PTO would seem to encourage a patent applicant from attempting to conceal the best mode, rejections of patent applications by the PTO for failure to disclose an invention’s best mode are almost nonexistent.<sup>83</sup> This result is logical. At the time of the filing of the application, evidence before the patent examiner, by the government’s own admission, rarely permits the examiner to determine that the inventor knew of a better mode for practicing the claimed invention.<sup>84</sup> The Manual of Patent Examining Procedure (MPEP) actually instructs examiners that they “should assume that the best mode is disclosed in the application, unless evidence is presented that is inconsistent with that assumption.”<sup>85</sup> The MPEP further states that “[i]t is extremely rare that a best mode rejection properly would be made in ex parte prosecution.”<sup>86</sup> Although rejection of a patent application based on the failure to reveal the best mode is not impossible,<sup>87</sup> the Board of Patent Appeals and Interferences from 1981 through 2012<sup>88</sup> published only nine decisions involving an examiner rejecting patent claims based on a failure to satisfy the best mode requirement. Of these nine cases, the Board reversed the examiner’s best mode rejection in seven of them. The Board did not address the issue in the eighth, and the examiner withdrew the rejection in the ninth. Given the presumption of best mode compliance,<sup>89</sup> the infrequent number of appeals relating to best mode, and the Board’s history regarding those appeals, AIA’s section 15 requirement removing judicial enforcement of best mode sounds the doctrine’s death knell.

#### **V. Has the AIA Turned Best Mode into Ashes?**

In examining the impact of AIA’s section 15 on the doctrine of best mode, Professor Ryan Vacca, Assistant Professor of Law at the University of Akron School of Law, has written an article titled Patent Reform and Best Mode: A Signal to the Patent Office or a Step Toward Elimination?<sup>90</sup> Professor Vacca believes that best mode is now at a crossroad.<sup>91</sup> One option eliminates the doctrine while the second \*280 option requires “innovative means of enforcement.”<sup>92</sup> Professor Vacca’s analysis of the topography of the doctrine within the landscape of the AIA is fascinating.

Professor Vacca asserts that Congress had to have realized that AIA’s amendment to best mode would leave the doctrine toothless.<sup>93</sup> He argues that section 15 is just the first step in a two-step process. The second step, according to Professor Vacca, is to completely eliminate the doctrine.<sup>94</sup> Professor Vacca advocates that Congress designed the current structure of the AIA regarding best mode to give all interested parties “an opportunity to digest the changes made by the AIA” in order to make the “eventual elimination [of best mode] easier to accept down the road.”<sup>95</sup>

He finds it odd that the AIA compromise pleased supporters of the best mode doctrine,<sup>96</sup> noting that “best mode reform could have: (1) eliminated it for invalidity, but not inequitable conduct; (2) allowed best mode to be used in cancellations; (3) required applicants to update the best mode before the patent issued; or (4) required patentees to update the best mode upon renewal.”<sup>97</sup> The result, according to Professor Vacca, is that the “advocates of eliminating best mode have achieved--as a practical matter-- what they set out to accomplish, while letting best mode supporters preserve best mode as a mere keepsake.”<sup>98</sup>

Noting that “Congress’s piecemeal elimination of best mode is an unsatisfying explanation,” Professor Vacca observes that “[i]f Congress really intended to abolish best mode, then it easily could have done so, especially given how close the AIA comes to this.”<sup>99</sup> He proposes the theory that Congress was actually signaling the PTO to use diligence in examining the best mode in patent applications.<sup>100</sup> But to do this, Professor Vacca states that the PTO needs new methods of enforcement or the use of underutilized powers.<sup>101</sup>

### **A. Rule 1.105**

One tool Professor Vacca found that the PTO could use to enforce the best mode requirement is a Requirement for Information (RFI) under 37 C.F.R. § 1.105 (Rule 1.105).<sup>102</sup> The rule provides that an examiner may require the production of “such information as may be reasonably necessary to properly examine or treat the matter.”<sup>103</sup> The Federal Circuit liberally construed the statute to mean that an RFI \*281 sent to a patent applicant could properly seek “any information available regarding the sale or other public distribution of the claimed plant variety anywhere in the world.”<sup>104</sup> The patent applicant refused to provide the information, taking the position that the requested information “was ‘not material to the patentability of the new [plant] variety.’”<sup>105</sup> The application was then deemed abandoned and the patent applicant sued alleging that the Director of the PTO abused his discretion in denying the applicant’s challenge to the requested information.<sup>106</sup>

The Federal Circuit rejected the argument, holding that the PTO can request information under Rule 1.105 “that does not directly support a rejection.”<sup>107</sup> The court noted: that “such information as may be reasonably necessary to properly examine or treat the matter” contemplates information relevant to examination either procedurally or substantively. It includes a zone of information beyond that defined by section 1.56 as material to patentability, and beyond that which is directly useful to support a rejection or conclusively decide the issue of patentability.<sup>108</sup> Thus, the court gave the PTO extensive powers to inquire into areas that would otherwise seem tangential to the patent.<sup>109</sup>

Professor Vacca states that this broad authority would allow the PTO to, as standard practice, request a patent applicant, patent attorney, or patent agent, to indicate whether the inventor had a best mode for the invention.<sup>110</sup> He notes that although the process contradicts case law which holds that the applicant need not specifically identify the best mode,<sup>111</sup> the process would not violate the PTO’s power under Rule 1.105 because the information would be useful regarding the objective prong of the best mode doctrine.<sup>112</sup>

Professor Vacca prophesizes that if applicants know that the PTO will specifically inquire into best mode, any problem of applicants failing to disclose best mode will be eliminated.<sup>113</sup> Applicants, as Professor Vacca asserts, will initially disclose the best mode rather than have the patent application rejected.<sup>114</sup>

Professor Vacca asserts that in theory, the additional information will allow the patent examiner to engage in a more thorough best mode analysis.<sup>115</sup> He also notes \*282 that for the dishonest applicant or representative, additional means of enforcement must be employed.<sup>116</sup>

### **B. Criminal Prosecution**

Professor Vacca proposes that another method of enforcing best mode is via criminal prosecution for filing false statements with the United States.<sup>117</sup> Specifically, under 18 U.S.C. § 1001(a)(2) (2006), which provides that: “whoever, in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully . . . makes any materially false, fictitious, or fraudulent statement or representation . . . shall be fined under this title, imprisoned not more than 5 years . . . or both.” If the patent examiner requests a patent applicant to reveal a best mode, and in doing so, falsely states that no best mode exists or that referenced language in the specification contains the best mode, then the patent applicant violates the statute.<sup>118</sup>

One element of the statute is materiality, which is defined as a statement that can influence or affect a federal agency.<sup>119</sup> A false statement concerning best mode, or lack thereof, according to Professor Vacca, would be material in that the disclosure of the best mode is still required under section 112.<sup>120</sup> A false statement of the required disclosure would be capable of

influencing the grant or denial of a patent application.<sup>121</sup>

A second element of section 1001(a)(2), knowledge, “relates only to the defendant’s knowledge and intent that the statements he made to a government entity were false or were made with the conscious purpose of evading the truth.”<sup>122</sup> Professor Vacca notes that an applicant who falsely responded to a section 1.05 inquiry regarding the best mode, indicating that the patent applicant did not know of the best mode while in fact having one, or by disclosing inferior modes in the application, would establish knowledge that the statement was false.<sup>123</sup> This stands in contrast, as Professor Vacca points out, to the situation where the patent applicant files the application and simply fails to disclose the best mode or fails to specifically disclose where in the specification the best mode exists.<sup>124</sup> In this scenario, the applicant would not have violated section 1001(a)(2) as no false statement had been \*283 made. Further, the failure to specifically identify which mode of many disclosed modes is the best mode is not a violation of section 112.<sup>125</sup>

The final requirement of section 1001(a)(2) is that the false statement be made in any matter within the jurisdiction of the executive, legislative, or judicial branch of the federal government. This requirement is met when the federal agency “‘has the power to exercise authority in a particular situation,’ as distinguished from ‘matters peripheral to the business of that body.’”<sup>126</sup> The PTO is an agency of the executive branch of the government and has the statutory power to grant or deny patents.<sup>127</sup> Professor Vacca concludes that if the PTO were to use RFIs to investigate best modes, a foundation for referring criminal prosecutions to the Department of Justice would exist. He further notes that the threat of criminal prosecution may assist in preventing fraud in disclosing the best mode.<sup>128</sup>

### C. Ethical Violations

Professor Vacca also discusses the ethical repercussion of failure to reveal best mode. Best mode enforcement may occur not only by criminal prosecution, but also through disciplinary actions against an applicant’s attorney or agent.<sup>129</sup> This enforcement weapon shifts the risk from the patent applicant to the patent attorney or agent, not only placing the individual’s USPTO license at risk, but in the case of attorneys, the state bar license as well.<sup>130</sup> He notes that most patent attorneys or agents would not take this risk just to keep the best mode a secret.<sup>131</sup>

Patent Office Rule 1.56 provides that “[e]ach individual associated with the filing and prosecution of a patent application has a duty of candor and good faith.”<sup>132</sup> This requires an individual to disclose all information known to that individual to be material to patentability.<sup>133</sup> Failure to do so violates the individual’s ethical obligation not to “engage in disreputable or gross misconduct,” “conduct involving dishonesty, fraud, deceit, or misrepresentation,” or “conduct that is prejudicial to the administration of justice.”<sup>134</sup>

A violation of Rule 1.56 results if a patent attorney or agent has knowledge that the applicant has a best mode but fails to disclose it or specifically designate it in \*284 response to an RFI.<sup>135</sup> A Rule 1.56 violation may subject the attorney or agent to disciplinary proceedings before the Office of Enrollment and Discipline.<sup>136</sup>

In addition to Rule 1.56, Rule 10.85 prohibits attorneys and agents from “[k] nowingly mak[ing] a false statement of law or fact,”<sup>137</sup> or from counseling or assisting a client in conduct known to be fraudulent.<sup>138</sup> Attorneys and agents have a duty to promptly call upon the client to rectify a fraud perpetrated upon the PTO. Should the client fail to do so, then the attorney or agent must reveal the fraud to the PTO when the attorney or agent receives information clearly establishing the fraud.<sup>139</sup> Violations of the PTO’s ethic rules would, of course, subject the attorney to the disciplinary proceedings of other applicable licensing boards.<sup>140</sup>

This combination of the RFIs and ethical rules, as Professor Vacca notes, forces patent attorneys and agents to have their clients address the best mode doctrine or make it more difficult for them to ignore the disclosure.<sup>141</sup> Thus, the threat of disciplinary actions against attorneys or agents may help reduce, in theory, concealment of an invention’s best mode.<sup>142</sup>

### D. Professor Vacca’s Limitations

Despite his proposals to enforce the best mode requirement in light of AIA’s section 15, Professor Vacca found several limitations to his own ideas that render them either ineffective or otherwise unenforceable.<sup>143</sup>

The first limitation he notes is that criminal and ethical violations are difficult to prove.<sup>144</sup> Section 1001(a)(2) requires knowledge of a false statement.<sup>145</sup> The disciplinary rules require the attorney's or agent's knowledge regarding the applicant's knowledge.<sup>146</sup> Before AIA's section 15, discoveries of best mode violations were made during pretrial discovery in the litigation process where a defendant would try to invalidate a patent for failure to reveal best mode.<sup>147</sup>

With the AIA, failure to disclose the best mode is no longer available to assert invalidity or unenforceability.<sup>148</sup> Thus, a defendant's ability to seek information related to the best mode is severely restricted, if available at all.<sup>149</sup> Given that one of \*285 the objectives of the AIA is to reduce the expense of litigation, Professor Vacca concludes that a patentee could successfully object to discovery requests relating to best mode and obtain a protective order limiting discovery.<sup>150</sup> The limitation on discovery would therefore render as extremely low the likelihood of the appropriate enforcement body being notified of a violation.<sup>151</sup> However, Professor Vacca states that:

It would not be impossible to discover this information. Discovery of best mode violations could be found in connection with a claim for a Walker Process violation of the antitrust laws or through inadvertent disclosure in connection with legitimate discovery on another issue of patentability or claim interpretation.<sup>152</sup>

The second limitation Professor Vacca foresees is that the criminal and ethical methods of enforcement have statutes of limitations. Prosecution for a violation of section 1001(a)(2) must commence within five years after the offense has been committed.<sup>153</sup> Therefore, even if the evidence of a fraud was discovered, the discovery may be too late. Further, any tolling argument of the statute of limitations has already been rejected. The Tenth Circuit, in *United States v. Dunne*,<sup>154</sup> held that “[t]he ability of the government, however, to learn of a particular offense is not a relevant factor.”<sup>155</sup>

Although the statute of limitations for the ethical method of enforcement may be less problematic, Professor Vacca still notes a challenge. The AIA provides that the limitations period for any disciplinary actions must be brought before the earlier of ten years from the date of the misconduct or one year after the date the misconduct is made known to the PTO.<sup>156</sup> Professor Vacca explains that, although the limitations period is longer for disciplinary actions and allows for discovery, the discovery rule is capped at ten years after the misconduct. Thus, unless discovery of evidence of a best mode concealment takes place fairly quickly, the applicable statute of limitations will severely impair criminal and ethical enforcement.<sup>157</sup>

In his third limitation, Professor Vacca notes that the threat of disciplinary sanctions is limited to those lawyers and patent agents who know the client has made false statements in response to RFIs.<sup>158</sup> For those attorneys who honestly have no knowledge of the applicant's belief concerning the best mode, or those who \*286 strategically position themselves to avoid such knowledge, the threat of disciplinary action is useless.<sup>159</sup>

Professor Vacca's fourth problem with his alternative enforcement methods is the chilling effect that the threat of enforcement could pose on legitimate conduct.<sup>160</sup> Enforcement by criminal prosecution or ethical disciplinary action relies on the power that these mechanisms have on the targeted individuals.<sup>161</sup> They also assume that the targeted individuals, when faced with these enforcement options, will err on the side of caution and voluntarily reveal an invention's best mode.<sup>162</sup> Professor Vacca feels, however, that these threats could also tend to chill legitimate conduct.<sup>163</sup> Over-enforcement, criminal prosecutions, or disciplinary actions, he argues, could result in fewer patent applications, thus undermining the very purpose of the patent system's design of disclosure to promote the progress of the useful arts.<sup>164</sup>

Finally, Professor Vacca states that even in the absence of an enforcement mechanism, many patent applicants may still disclose the best mode.<sup>165</sup> He notes, by example, that an applicant may still want to disclose best mode so as to “prevent a subsequent applicant from being able to obtain a patent claiming that mode.”<sup>166</sup> Further, applicants may voluntarily disclose the best mode in an attempt to narrow their claims in the event that their broader claims are subsequently invalidated.<sup>167</sup> He finds, however, that the limitations on the criminal and ethical methods of enforcement, the costs of implementing the methods, and the already existing incentives for disclosure render both methods ineffective.<sup>168</sup>

Professor Vacca concludes his analysis as follows:

The erosion of best mode has been in the works for a number of years. The AIA has resulted in best mode remaining as a requirement for patentability, but has eliminated the commonly used means of enforcement--litigation to show invalidity or unenforceability. Up until now, and for good reason, the PTO has failed to take on the responsibility of policing best mode disclosures.



But by removing the invalidity, unenforceability, and cancellation arrows from the quiver of best mode enforcement while still keeping best mode as a requirement for patentability, Congress may have been attempting to shift the responsibility of enforcement to the PTO. And although tools exist for the PTO to enforce best mode--criminal and ethical means of enforcement--these are ineffective methods and will likely not result in additional best mode disclosures. In fact, if these measures were adopted, a potential may exist for less disclosure than what would otherwise result.

In the end, if Congress believes it made the right decision in the AIA concerning best mode, then Congress should simply bite the bullet and formally \*287 eliminate best mode as a requirement for patentability. Of course it is difficult to jettison such a long-held requirement, but in the end, keeping the requirement without effective enforcement mechanisms does not make much sense.<sup>169</sup>

## VI. The Unspoken Solution

As previously noted, Professor Vacca finds that “[w]e are at a fork in the road of best mode’s journey. One path leads to the complete elimination of best mode; the other leads to innovative means of enforcement.”<sup>170</sup> Robert Frost’s immortal words could not be more appropriate in this context when he wrote: “Two roads diverged in a wood, and I, I took the one less traveled by, And that has made all the difference.”<sup>171</sup> Professor Vacca gallantly attempts to reconcile the chaos Congress created between sections 15 and 112. His Herculean efforts ultimately led him down the path that best mode should be eliminated as a requirement to obtain a patent given that the failure to disclose has no repercussions.

There is another path that is available. Professor Vacca identified two paths--elimination or innovative enforcement. His analysis of both options is noteworthy and defensible given the language of the statute. However, Professor Vacca’s paths are not actually two. They are one in the same because they do not question the statute as it currently exists. He fails to recognize the true alternative path, “the one less traveled,” that actually resolves the conflict. It is the only solution that is consistent with Article I, Section 8, Clause 8 of the United States Constitution. It is also the only solution that is consistent with Supreme Court precedent. The answer? Section 15 of the AIA is unconstitutional.

## VII. The Unbalanced Act

The Supreme Court explained in *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*,<sup>172</sup> that Article I, Section 8, Clause 8 of the Constitution:

reflects a balance between the need to encourage innovation and the avoidance of monopolies which stifle competition without any concomitant advance in the “Progress of Science and useful Arts.” . . . [T]he Clause contains both a grant of power and certain limitations upon the exercise of that power. Congress may not create patent monopolies of unlimited duration, nor may it “authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available.”<sup>173</sup>

The Court noted that “[f]rom their inception, the federal patent laws have embodied a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy.”<sup>174</sup> The Court went on to explain that:

\*288 Once an inventor has decided to lift the veil of secrecy from his work, he must choose the protection of a federal patent or the dedication of his idea to the public at large. As Judge Learned Hand once put it: “[I]t is a condition upon the 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.”<sup>175</sup>

“The federal patent system thus embodies a carefully crafted bargain for encouraging the creation and disclosure of new, useful, and nonobvious advances in technology and design in return for the exclusive right to practice the invention for a period of years.”<sup>176</sup>

The very soul of the doctrine is to prevent inventors from concealing the best mode or method of their inventions while rewarding the inventors the constitutional right to exclude others from making or using their inventions.<sup>177</sup> The best mode

doctrine is based on this quid pro quo structure of patent law.<sup>178</sup> The removal of the enforcement of best mode by the public, via AIA's section 15, destroys this careful balance that was created in the past.<sup>179</sup> The lack of enforcement therefore allows an inventor to withhold parts of the invention. Such action, according to the Supreme Court, is deemed a fraud upon the public, rendering the patent void.<sup>180</sup> Any patent that does not fully describe the invention, does not protect the invention, rendering the invention "public property."<sup>181</sup>

The interplay between sections 15 and 112 is the equivalent to the passage of a statute stating that operators of motor vehicles are prohibited from driving through stop lights when the light is red (section 112), yet preventing any punishment for the violation (section 15). The result would render any violation a nullity. After subsequent wrecks resulting in injuries and deaths for ignoring a law for which there are no consequences, the public would become outraged that those who ignored red stop lights would go unpunished. The legislature, in response to the public outcry, would enact punishments for such violations as necessary for the health and safety of the public. AIA's section 15 now makes a basic prohibited act of patent law, non-disclosure, de facto legal.<sup>182</sup> This congressional approval, rendering best mode meaningless and allowing monopolies, will not be tolerated by the judicial branch, which should subsequently invalidate, by necessity, section 15 as unconstitutional.

### **\*289 VIII. What the Courts Giveth, Only the Courts Shall Taketh Away!**

An argument that Professor Vacca<sup>183</sup> and other critics of the best mode doctrine<sup>184</sup> cannot ignore regarding section 15's constitutionality is that the doctrine is a creation of the courts, not Congress.<sup>185</sup> First described in *Page v. Ferry*,<sup>186</sup> Judge Wilkins, in instructing a jury during a patent infringement proceeding, stated:

Another objection has been urged, that the patentee has withheld in his description the best mode of effecting the object designed by his specifications, and for which the patent was granted. The patentee is bound to disclose in his specifications the best method of working his machine known to him at the time of his application. An infringement will not have taken place, unless the invention can be practiced completely by following the specifications. An infringement is a copy made after, and agreeing with the principle laid down in, the patent; and if the patent does not fully describe everything essential to the making of the thing patented, there will be no infringement by the fresh invention of processes which the patentee has withheld from the public. The specification is intended to teach the public the improvement patented; it must fully disclose the secret; must give the best mode known to the inventor, and contain nothing defective, or that would mislead artists of competent skill in the particular manufacture.

In consideration of the exclusive privilege conferred, and that the public may fully enjoy the benefit of his invention, all his knowledge in respect to the perfect practice of his invention, must be embraced in his specification. Whether it is so or not, is for you to determine from the evidence submitted.<sup>187</sup>

Page discusses best mode as an entirely separate requirement from enablement.<sup>188</sup> As previously noted, it was not until the Patent Act of 1870 that Congress first codified the doctrine.<sup>189</sup> What is significant, and why it is important to carefully read the applicable portion of the instruction, is that Judge Wilkins does not refer to any statutory authority for his best mode instruction. This is critical given his prior references to the applicable statutory requirements for patentability at the time of the litigation.<sup>190</sup>

History establishes that best mode, as are many other requirements to establish patentability, is a creature of the judiciary, not of Congress.<sup>191</sup> Because best mode \*290 was created by the judiciary in 1857,<sup>192</sup> it must be deduced that the doctrine's origin lies in the Constitution as no statutory authorization for the doctrine existed until 1870.<sup>193</sup> This conclusion is firmly rooted in the language of Article I, Section 8, Clause 8 of the Constitution. The objective of patent law is to reveal everything regarding the invention. The inventor bares his soul to the public regarding the invention. As a reward for confessing the patent's secrets and sins, the inventor is bestowed with a constitutionally protected, government enforced, monopoly of a limited duration.<sup>194</sup> However, failure to be totally honest with the government and the public, even if unintentional,<sup>195</sup> by withholding the inventor's full confession regarding the invention's secrets, is a fraud upon the public that the Supreme Court has explicitly held voids the patent and renders the invention the property of the public domain.<sup>196</sup>

Best mode is an element of this full confession. The doctrine focuses on how the invention is made and why this method is the best way the inventor knows at the time of his patent application to make the invention. The doctrine is not useless. To the contrary, it is vital. Best mode serves the purpose of disclosing the best method of production known to the inventor at the

time of the patent application so the invention may be recreated by one who is reasonably skilled in the art.<sup>197</sup> Without the full disclosure of the invention's operation, the patent becomes a de facto monopoly, prohibited by the Constitution.

Despite Congress's attempt to compromise on the best mode debate by continuing the doctrine in section 112, yet eliminating its enforcement in AIA's section 15, Congress unwittingly overstepped its constitutional authority. What the courts created on constitutional grounds, Congress will not be able to void. Best mode belongs to the judiciary and the judiciary will protect the doctrine's existence as a constitutional requirement.

A prime example of Congress's prior attempt to impinge on a court-created constitutional doctrine was the enactment of 18 U.S.C. § 3501,<sup>198</sup> which was designed to overrule *Miranda v. Arizona*.<sup>199</sup> In an opinion written by Chief Justice Rehnquist, the Supreme Court made it explicit to Congress that a decision based on a constitutional doctrine by the Supreme Court "may not be in effect overruled by an \*291 Act of Congress."<sup>200</sup> So, too, should be the fate of section 15. Congress's attempt to make best mode an unenforceable doctrine is identical to Congress's attempt to overturn *Miranda*.

### IX. Violating the Constitution

Ignoring the valid debate as to which branch of government can claim paternity of best mode, section 15 cannot survive because the provision explicitly violates two requirements of Article I, Section 8, Clause 8. Section 15 fails "[t]o promote the Progress of . . . useful Arts" and allows for a patent that is not "for limited Times."

Inventions are essential to a competitive economy.<sup>201</sup> To continue a healthy and vibrant economy, competitiveness must not be stifled by monopolies.<sup>202</sup> Therein lies the two problems with section 15. The inability to challenge a patent based upon failure to reveal the best mode stifles the progress of the useful arts and it keeps as a secret the best mode of the invention. The antithesis of patent law.<sup>203</sup>

If the inventor's best mode is allowed to remain a secret, with no enforceability provision available once the patent has been issued, society has been deprived of its bargain with the inventor<sup>204</sup> with no contractual ability to enforce the terms of the bargain. Without the knowledge of the invention's best mode, the invention most likely cannot be duplicated without additional experimentation. Further, and more importantly, the art cannot be promoted forward without this knowledge.<sup>205</sup>

Without the best mode, those skilled in the art will be left to wonder how to perfect the best mode for the invention. Further, the best mode may or may not be discovered by independent engineering. In either situation, the progress of the art is not promoted as required by the Constitution.<sup>206</sup> Rather, it is stifled. Assuming that the best mode is never discovered, society is deprived of the ability to benefit from the invention after the patent's expiration because no one will be able to precisely duplicate the invention, or build upon the foundation of the best mode described in the patent.<sup>207</sup> That would also allow the inventor to continue to have a de facto monopoly over the invention after the expiration of the patent period. Assuming that the best mode is subsequently discovered by independent means, the progress of the art still has not been promoted. This scenario results in an individual or individuals attempting to rediscover how the invention was exactly created. \*292 Time and assets that are wasted on a prior invention detract from the creation of new inventions.<sup>208</sup>

To satisfy the constitutional requirement of promoting the progress of the art, the mode must be fully disclosed. With the full disclosure, those skilled in the art can use the invention, with its best mode, as a foundation to build the art, to allow it to grow and branch into uncharted territory.<sup>209</sup> This is the very meaning envisioned by the Constitution.

Section 15 destroys this progress because the evidence, as previously discussed, establishes that patent examiners very rarely deny a patent on best mode grounds,<sup>210</sup> nor do the examiners necessarily have the information available to make such a challenge.<sup>211</sup> Society has made a contractual agreement with the inventor to grant the limited monopoly. Society has the constitutional right to enforce the terms of that contract. Those terms require full and complete disclosure of the invention. Section 15 deprives society of its ability to enforce the benefit of its bargain once the patent has been issued.

The greatest sin that section 15 commits is that the provision allows a patent to be unlimited, creating the very monopoly that Article I, Section 8, Clause 8 was designed to prohibit. By protecting an invention from full public scrutiny following the issuance of the patent, the inventor, who fraudulently deceived the PTO in the patent application, is allowed to keep the best mode as a trade secret once the patent has expired.<sup>212</sup> This result would cause the invention to violate the Constitution's "limited Times" provision because the best mode of the invention could remain as a trade secret in perpetuity.

Nor is there any incentive for a third party to discover a best mode during or after the expiration of the patent. Society must now presume that the inventor disclosed the best mode as required by section 112 and any attempt to prove the contrary would result in the unnecessary waste of resources. This presumption is now required in light of section 15 because any challenge to best mode has been prohibited by Congress. Now assume for argument's sake that the inventor did reveal the best mode of the invention as required by section 112. Any attempt to verify this fact would also result in the waste of the investigator's resources. This time would have been better spent expanding the art, rather than attempting to reinvent the art.

**\*293** Assuming again that the best mode was not revealed and that independent testing showed that the best mode was not disclosed, no action can be taken against the inventor due to section 15. The inventor is allowed to maintain his fraud through his valid patent without punishment from society.

Once the patent period has expired, the invention belongs to the public. By this time, society and technology has hopefully advanced in new directions. Because of this hopeful advancement, there is no incentive for an inventor to reinvestigate the past. The best mode of decades before could be outdated and, if properly disclosed initially, would belong to the public. If not disclosed, the best mode would remain a secret. The undisclosed best mode would not assist in the future expansion of the art, rendering the art poorer for it.<sup>213</sup> Thus, the practical result of these scenarios is that section 15 allows for not only a monopoly to continue regarding the best mode of the invention, as there is no incentive to discover it, but also blocks the advancement of the art, two of the basic requirements of Article I, Section 8, Clause 8.

## **X. The Tea Party Revisited**

Supporters of section 15 could argue that it is the responsibility of Congress, and not the courts, to establish the rules necessary to obtain a patent. This position is a legitimate argument. Congress, under Article I, may establish such "conditions and tests for patentability."<sup>214</sup> "It is the duty of the Commissioner of Patents and of the courts in the administration of the patent system to give effect to the constitutional standard by appropriate application . . . of the statutory scheme of the Congress."<sup>215</sup>

Although the courts are responsible for applying the patent laws designed by Congress, Congress "may not overreach the restraints imposed by the stated constitutional purpose. Nor may it enlarge the patent monopoly without regard to the innovation, advancement or social benefit gained thereby."<sup>216</sup> Section 15 exceeds the restraints of Article I, Section 8, Clause 8, for it has no reference to this provision of the Constitution. It fails to allow for the advancement of technology. It fails to provide a benefit to society.

The argument for or against section 15 may seem to be a matter of pure academics given the rapid growth of technology. However, history proves the contrary. In the sixteenth and seventeenth centuries, the English Crown granted monopolies to the favorites of the court. These monopolies removed goods and business that once belonged to the public.<sup>217</sup> It is this very monopoly on a product called tea that resulted in a rather small, exclusive costume party in Boston harbor, **\*294** that eventually led to the American Revolution and the founding of this country.<sup>218</sup> It is this aversion to monopolies, so fresh in the mind of our founding fathers, that led to Article I, Section 8, Clause 8 of the Constitution.<sup>219</sup>

Critics of best mode must remember that Thomas Jefferson, one of the first administrators of this country's patent system, in his duty as Secretary of State,<sup>220</sup> called patents an "embarrassment."<sup>221</sup> Patents are given a government monopoly for a limited time as "a reward, an inducement" for "bring[ing] forth new knowledge" to society.<sup>222</sup> Patents are "not designed to secure to the inventor his natural right in his discoveries."<sup>223</sup> Patents for inventors are like cell phones for teenagers. They are not a right, they are an earned privilege.

Section 15 creates the proverbial slippery slope, allowing for less than honest disclosure in patent applications and preventing any public challenge to the patent's best mode disclosure once the patent is issued. The specific deprivation of any enforcement of section 112's best mode requirement is the congressional equivalent of the English Crown's grant of monopolies to its favorites.

## **XI. To the Best Mode's Critics--That Dog Don't Hunt<sup>224</sup>**

Commentators<sup>225</sup> and Congress<sup>226</sup> have stated four main reasons as to why best mode should be eliminated: 1) it is uniquely American and is inconsistent with other patent laws around the world; 2) the best mode may be technologically irrelevant; 3) the disclosure of best mode is redundant because of the enablement requirement; and 4) best mode unnecessarily increases litigation expenses. These excuses are as sturdy as a house of cards.

### A. Uniquely American

Best mode critics argue that the doctrine is uniquely American and is an impediment to foreign patentees.<sup>227</sup> So what? Of course it is uniquely American because it is based on the Constitution of the United States. Whether the basic constitutional requirements for patents in the United States correspond with the patent laws of other countries of the world is a non-issue. If the supreme law of the land prohibits certain decisions by Congress, Congress cannot cower to the pressures of other countries and ignore the Constitution.

**\*295** The reverse is applicable to Americans who are seeking foreign patents. Why should American inventors who are seeking foreign patents comply with the patent laws of other countries? Why should the best mode disclosure requirements of this country, that have existed for more than 150 years, be modified for the convenience of foreign inventors? There is no logical reason why best mode should be eliminated for the ease of foreign patentees. Would other countries relax their patent laws for the convenience of American inventors? The answer would be of course not.

Despite this position by best mode critics, the facts establish that at least twenty-four other countries require inventors to disclose best mode.<sup>228</sup> Although some countries have dropped the requirement, commentators have shown that the trend among the countries is to adopt the doctrine.<sup>229</sup> This trend makes sense. Without full and complete disclosure of all aspects of a patent, the art and society cannot advance.

### B. Technologically Irrelevant

The report from the House Judiciary Committee regarding the AIA states that best mode is technologically irrelevant because “the best mode contemplated at the time of invention may not be the best mode of practicing or using the invention years later.”<sup>230</sup> The Judiciary Committee of the House forgot about section 112 because section 112 does not provide that best mode is relevant at the time of the invention. Rather, best mode is relevant at the time the patent application is filed.<sup>231</sup> The response to this criticism is the same as to the uniquely American argument--so what? If technology advances during the duration of the patent, rejoice! That is what society craves. Society wants technology and science to advance to make our lives better.<sup>232</sup> If technology does not advance, society and the economy stagnates. The technology that was applicable to the best mode at the time of the patent application will hopefully become outdated during the patent’s term. If such advancements are not made, the art has not progressed, and society is the poorer for it. However, the disclosure of best mode is required because it serves as the foundation for the future of the art. It allows the art to be built upon it.<sup>233</sup>

### C. The Lack of Redundance

The next argument asserts that best mode is useless because of the enablement requirement.<sup>234</sup> “Specifically, because there is no obligation for an inventor to **\*296** update the best mode after filing . . . .”<sup>235</sup> The argument goes that the additional disclosure required by best mode relative to the enablement requirement is “not worth the costs.”<sup>236</sup>

The argument fails because:

This requirement acts as a safeguard against the “natural human tendency” to disclose “only what they know to be inferior modes” of the invention so as to keep the best for themselves. Without the additional requirement to disclose the best mode, the “primary purpose of the patent system would be frustrated because the inventor would be permitted to retain the details of his or her invention as trade secrets while gaining the benefit of the patent monopoly.”<sup>237</sup>

Enablement and best mode are independent species based on different policies. “Enablement focuses only on ensuring that a ‘person of ordinary skill in the art,’ without ‘undue experimentation,’ can make and use the invention.”<sup>238</sup> But, “by not requiring the best mode disclosure, the ‘evolutionary development of innovation’ would certainly be slowed because inventors would be able to withhold their best mode and maintain a competitive advantage after the patent expires; a result

that is contrary to the very foundations of the patent system.”<sup>239</sup> This concession by best mode reformists establishes that section 15 violates both the “for limited Times” and the promotion of the arts requirements of the Constitution. “Therefore, it would be improper to rely on the enablement requirement alone because inevitably inventors would withhold their best mode, depriving the public of the patent system’s quid pro quo and inhibiting disclosure that could otherwise lead to technological growth.”<sup>240</sup> Disclosure of best mode is necessary so as not to deprive society of its bargain with the inventor for the exclusive monopoly and to require the disclosure of methods that could advance technology<sup>241</sup> and promote the progress of the art.<sup>242</sup>

#### D. Litigation Costs

The cost of litigation is the final reason asserted for the death of best mode. This position is the weakest and most illogical of the four. The argument goes that patent suits costs, on average, between two and four million dollars.<sup>243</sup> Of course, part of this cost includes pretrial discovery.<sup>244</sup> Supposedly, when best mode claims are involved, costs associated with discovery can significantly increase.<sup>245</sup> The reason for the increase apparently relates to the requirements of the claim itself.<sup>246</sup> Because the courts have logically imposed a heavy burden of proof on those **\*297** asserting a best mode defense, evidence of the inventor’s state of mind at the time the patent application was filed--a state of mind that existed years before the discovery process began--must be obtained.<sup>247</sup> The argument goes that because of the extensive time difference between the filing of the patent and the discovery process, proof of the inventor’s state of mind is only circumstantial, thus requiring time-consuming and expensive depositions and investigations.<sup>248</sup>

It has been noted that in patent litigation proceedings, “best mode claims are frequently ‘last resort’ defenses, alleged by infringers with weak technical cases.”<sup>249</sup> A review of district court and Federal Circuit case law has shown that best mode challenges have an extremely rare success rate.<sup>250</sup> But, despite this heavy burden of **\*298** proof, and rare success rate, the defense is very easy to plead.<sup>251</sup> As a result, alleging a best mode violation will allow a weak case to continue when the case should have been dismissed.<sup>252</sup> This, of course, leads to additional discovery that would not have been previously available.<sup>253</sup> This also allows the infringer to “try the person rather than the patent,” a trial strategy which focuses on the inventor’s actions rather than the technical merits of the patent case.<sup>254</sup> The equivalent of a criminal defense attorney attempting to try the victim for the crime.

Commentators have noted that the “best-mode-is-expensive” argument is not supported by the facts.<sup>255</sup> The evidence measuring the costs and benefits of best mode enforcement is difficult to determine because of the numerous variables affecting litigation costs.<sup>256</sup> “Furthermore, some scholars argue that because the inventor’s state of mind will be relevant during discovery regardless of whether best mode compliance is challenged, eliminating the best mode defense would have little effect on pre-trial discovery costs.”<sup>257</sup> However, according to the supporters of this argument, because “a best mode defense is often plead when it will not succeed, it is frequently used only to advance weak technical cases, and a congressional advisory committee determined that best mode defenses do increase litigation costs, the best mode defense has a negative effect on patent litigation.”<sup>258</sup>

The simple response to this argument is Federal Rule of Civil Procedure 11--sanctions. The litigation-cost argument, as just described, complains that best **\*299** mode should be eliminated because it can increase litigation costs and its use as a defense is usually unsuccessful. The defense is only used in the weakest of cases and does nothing but needlessly continues the litigation. In circumstances such as this, the courts have the ability to impose sanctions. If an attorney presents an argument that is frivolous and is simply raised to needlessly continue the litigation, it is the responsibility of the court, upon motion of the opposing party, or sua sponte, to punish the offending party. Destroying a centuries-old doctrine, whose purpose is to comply with the requirements of constitutional disclosure, simply because litigants are abusing the doctrine is ludicrous. It renders a patent requirement of the Constitution meaningless. This same logic could be applied to any legal doctrine in any field of law. If the rule or doctrine is too costly, no matter whether the cost is due to its intrinsic value or abuse by the parties, the rule or doctrine is eliminated, no matter if it is constitutionally mandated.

In the area of patent law, such analysis could arguably eliminate nearly all challenges to a patent. The result, following the logic of the “cost conscious” supporters, would be to allow the inventors to file a patent application with the PTO. After the PTO grants the patent, any legal challenges to the patent would be barred once the patent is granted. The patent becomes an undisputable per se monopoly because any legal challenge to the patent would be “too expensive.” The farce of this position is that the cost of litigation has nothing to do with eliminating best mode from the arsenal of litigation. It is simply a group of lawyers, inventors, and large companies who are tired of defending frivolous arguments and lawsuits. Admittedly, wasting time, money, and resources in defending frivolous claims and arguments makes the elimination of best mode, and many other

legal doctrines, appealing. But that is not how our litigation system is designed and such a solution provides a dangerous precedent. For years, the courts, through the use of sanctions, have combated frivolous arguments and vindictive litigation through monetary and equitable measures. The courts can do the same with best mode claims. The response to this position is then why have the courts not stopped the abuse of best mode in patent litigation cases? The answer is that most district judges have little or no experience in the area of patent law.<sup>259</sup> Many district judges may never try a patent case in their entire career. If they should draw one, there is always the excellent chance that the case could settle and never be tried. Should this occur, the best mode issue would have already been explored during discovery. Further, even if a district judge tries a patent case, the unfamiliarity with the many complicated aspects of patent law makes it difficult for a district judge to recognize the frivolity of a best mode claim.<sup>260</sup> In such a situation, it then becomes the responsibility of the opposing party to educate the district court and move the court for the appropriate \*300 sanction. The fact that the best mode doctrine is subjected to unfettered abuse by litigators should not render its ability to be enforced null and void.

## **XII. Conclusion--The Phoenix Rises**

Despite AIA's de facto elimination of best mode as a requirement of patentability under section 15, the federal courts should not, and cannot, allow the doctrine to die. Best mode is rooted in the Constitution. It inhibits nondisclosure and assists in satisfying the quid pro quo requirements of the patent system.<sup>261</sup> For these reasons alone, the courts should prevent the strangulation of best mode by section 15.

Congress's attempt to revise best mode in light of its critics is nothing more than attempting to appease a spoiled child who is having a tantrum. Like a spoiled child, once appeased, that child will demand even more to remain quiet. What has occurred to best mode is a dangerous precedent. Although section 15 has destroyed the life of best mode in all practical applications, the courts should raise the doctrine like a phoenix from the ashes. Such a resurrection will be based on constitutional grounds, nullifying section 15. With the dragon of section 15 slayed, the delicate balance of the patent system will once again be restored, society will benefit, and the "useful Arts" shall once again "Progress."

### Footnotes

<sup>a1</sup> B.S. Indiana University 1982; J.D. Indiana University 1985; LL.M. Candidate in Intellectual Property and Technology Law University of Dayton 2013. Copyright © 2013 Wayne A. Kalkwarf. All rights reserved.

<sup>1</sup> Ryan Vacca, Patent Reform and Best Mode: A Signal to the Patent Office or a Step Toward Elimination?, 75 Alb. L. Rev. 279, 279 (2012).

<sup>2</sup> Id. at 290-91.

<sup>3</sup> Id. at 291.

<sup>4</sup> 35 U.S.C. § 112 (2012).

<sup>5</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 15, 125 Stat. 284, 328 (2011).

<sup>6</sup> Patent Act of 1790, ch. 7, 1 Stat. 109.

<sup>7</sup> Id. § 2, 1 Stat. at 110.

<sup>8</sup> Id.

9 §6, 1 Stat. at 111-12; see also Vacca, supra note 1, at 281.

10 § 6, 1 Stat. at 111-12; see also Vacca, supra note 1, at 281.

11 § 6, 1 Stat. at 111-12; see also Vacca, supra note 1, at 282.

12 Patent Act of 1793, ch. 11, 1 Stat. 318; see also Vacca, supra note 1, at 282.

13 § 3, 1 Stat. at 321; see also Vacca, supra note 1, at 282.

14 § 3, 1 Stat. at 321-22; see also Vacca, supra note 1, at 282.

15 § 6, 1 Stat. at 322; see also Vacca, supra note 1, at 282.

16 § 6, 1 Stat. at 322; see also Vacca, supra note 1, at 282.

17 § 6, 1 Stat. at 322; see also Vacca, supra note 1, at 282.

18 Vacca, supra note 1, at 282.

19 Id.

20 Patent Act of 1836, ch. 357, 5 Stat. 117; see also Vacca, supra note 1, at 283.

21 Vacca, supra note 1, at 283.

22 Page v. Ferry, 18 F. Cas. 979 (C.C.E.D. Mich. 1857) (No. 10,662). Page is discussed in further detail later in this article. See *infra* note 187 and accompanying text. However, due to the historic significance of Page, the case is mentioned in this section of the article.

23 Page, 18 F. Cas. at 984.

24 Id.

25 Vacca, supra note 1, at 283.

26 Patent Act of 1870, ch. 230, 16 Stat. 198; see also *id.*

27 § 26, 16 Stat. at 201; see also Vacca, supra note 1, at 283.

28 § 26, 16 Stat. at 201; see also Vacca, supra note 1, at 283-84.



29 § 61, 16 Stat. at 201; see also Vacca, supra note 1, at 284.

30 Patent Act of 1952, Pub. L. No. 82-593, 66 Stat. 792.

31 35 U.S.C. § 112 (2006).

32 See *In re Honn*, 364 F.2d 454, 461 n.7 (C.C.P.A. 1966) (“[T]he requirement for disclosing the best mode of carrying out the invention is stated as generally applicable to all types of invention.”); Vacca, supra note 1, at 284.

33 35 U.S.C. § 282 (2006).

34 Vacca, supra note 1, at 284.

35 *In re Gay*, 309 F.2d 769, 772 (C.C.P.A. 1962).

36 *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1532 (Fed. Cir. 1987).

37 *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209-10 (Fed. Cir. 1991).

38 U.S. Const. art. I, § 8, cl. 8.

39 *Wahl Instruments, Inc. v. Acvious, Inc.*, 950 F.2d 1575, 1579 (Fed. Cir. 1991).

40 Vacca, supra note 1, at 285; see also *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480-81, 484 (1974) (noting that patents and trade secrets are never in conflict as patents require disclosure while trade secrets by definition are not in the public domain).

41 Vacca, supra note 1, at 285.

42 35 U.S.C. § 282 (2006).

43 *Old Town Canoe Co. v. Confluence Holdings Corp.*, 448 F.3d 1309, 1321-22 (Fed. Cir. 2006); Vacca, supra note 1, at 286.

44 Vacca, supra note 1, at 286.

45 *Chemcast Corp. v. Arco Indus. Corp.*, 913 F.2d 923, 927-28 (Fed. Cir. 1990).

46 *Id.* at 928; see also *AllVoice Computing PLC v. Nuance Commc’ns, Inc.*, 504 F.3d 1236, 1246 (Fed. Cir. 2007) (defining the best mode doctrine).

47 *Chemcast*, 913 F.2d at 928.

48 Id.

49 Vacca, supra note 1, at 286 (citing *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1049 (Fed. Cir. 1995)).

50 *Glaxo*, 52 F.3d at 1049.

51 Id. at 1049-50.

52 *Randomex, Inc. v. Scopus Corp.*, 849 F.2d 585, 589 (Fed. Cir. 1988).

53 Id.

54 Id.

55 Vacca, supra note 1, at 287.

56 Id.

57 See, e.g., 35 U.S.C. § 112 (2006) (omitting a requirement to specifically label the best mode).

58 Patent Reform Act of 2005, H.R. 2795, 109th Cong. § 4(d) (2005); Vacca, supra note 1, at 290.

59 Vacca, supra note 1, at 290.

60 See Patent Reform Act of 2006, S. 3818, 109th Cong. § 4(h) (2006) (refraining from any changes to the best mode doctrine); Vacca, supra note 1, at 290.

61 Vacca, supra note 1, at 290.

62 See Patent Reform Act of 2007, H.R. 1908, 110th Cong. §§ 6(f)(1), 13 (2007) (changing the best mode requirement in two sections); Vacca, supra note 1, at 290.

63 See H.R. Rep. No. 110-314, at 43-44 (2007) (including those characteristics among a list of descriptors of the best mode doctrine); Vacca, supra note 1, at 290.

64 Vacca, supra note 1, at 290.

65 See Patent Reform Act of 2007, S. 1145, 110th Cong. (2007); Vacca, supra note 1, at 291.

66 Vacca, supra note 1, at 291.

67 Id.

68 Id.

69 Id.

70 Patent Reform Act of 2009, S. 515, 111th Cong. §§ 5(f), 14 (2009); Vacca, supra note 1, at 291.

71 Vacca, supra note 1, at 291.

72 S. Rep. No. 111-18, at 24-25 (2009); Vacca, supra note 1, at 291.

73 Patent Reform Act of 2009, H.R. 1260, 111th Cong. § 6(h) (2009); Vacca, supra note 1, at 291.

74 Vacca, supra note 1, at 291.

75 Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 15, 125 Stat. 284, 328 (2011).

76 Compare id., with 35 U.S.C. §112 (2006).

77 H.R. Rep. No. 112-98, pt. 1, at 52 (2011).

78 Vacca, supra note 1, at 292-93.

79 H.R. Rep. No. 112-98, pt. 1, at 52.

80 See id. (“An applicant for a patent must disclose...the best mode contemplated by the inventor of carrying out the invention.”).

81 See id. (“[A] defendant in patent litigation may also allege an intentional nondisclosure of the best mode, with intent to deceive the Office, as a basis for an unenforceability defense.”).

82 Vacca, supra note 1, at 293.

83 Id. at 294.

84 See United States Patent & Trademark Office, Manual of Patent Examining Procedure §2165.03 (8th ed. rev. 9, Aug. 2012) (“The information that is necessary to form the basis for a rejection based on the failure to set forth the best mode is rarely accessible....”).

85 Id.

86 Id.

87 Id. (“The information that is necessary to form the basis for a rejection...is generally uncovered during discovery procedures in...inter partes proceedings.”).

88 Vacca, supra note 1, at 294. Professor Vacca’s statistics date from 1981 to 2009. Those statistics have been updated through December 31, 2012.

89 See supra notes 84-87 and accompanying text.

90 Vacca, supra note 1.

91 Id. at 295.

92 Id.

93 Id.

94 Id.

95 Id.

96 Vacca, supra note 1, at 295.

97 Id. at 296 n.122.

98 Id. at 296.

99 Id.

100 Id.

101 Id.

102 37 C.F.R. § 1.105 (2012); Vacca, supra note 1, at 296.

103 37 C.F.R. § 1.105.

104 *Star Fruits S.N.C. v. United States*, 393 F.3d 1277, 1280, 1285 (Fed. Cir. 2005).

105 Id. at 1280.

106 Id.

107 Id. at 1281-82.

108 Id. at 1282 (citation omitted).

109 Vacca, supra note 1, at 297.

110 Id.

111 Id. (citing *Randomex, Inc. v. Scopus Corp.*, 849 F.2d 585, 589 (Fed. Cir. 1988)).

112 Id.

113 Id.

114 Id.

115 Vacca, supra note 1, at 297.

116 Id.

117 Id. at 298.

118 Id.

119 Id. (citing *United States v. Serv. Deli Inc.*, 151 F.3d 938, 941 (9th Cir. 1998); *United States v. Puente*, 982 F.2d 156, 159 (5th Cir. 1993); *United States v. Brittain*, 931 F.2d 1413, 1415 (10th Cir. 1991)).

120 Vacca, supra note 1, at 298.

121 Id.

122 *United States v. Lupton*, 620 F.3d 790, 806 (7th Cir. 2010).

123 Vacca, supra note 1, at 298.

124 Id.

125 Randomex, Inc. v. Scopus Corp., 849 F.2d 585, 589 (Fed. Cir. 1988).

126 United States v. Davis, 8 F.3d 923, 929 (2d Cir. 1993) (quoting United States v. Rodgers, 466 U.S. 475, 479 (1984)).

127 35 U.S.C. §§ 1-2 (2012).

128 Vacca, supra note 1, at 299.

129 Id.

130 Id.

131 Id.

132 37 C.F.R. § 1.56(a) (2012).

133 Id.

134 Id. § 10.23(a), (b)(4)-(5).

135 Vacca, supra note 1, at 300.

136 37 C.F.R. §§ 10.20(b), 10.23(a), 10.23(c)(10).

137 Id. § 10.85(a)(5).

138 Id. § 10.85(a)(7).

139 Id. § 10.85(b)(1).

140 Vacca, supra note 1, at 300.

141 Id.

142 Id.

143 Id. at 301.

144 Id.

145 Id.; 18 U.S.C. §1001(a)(2) (2006).

146 Vacca, supra note 1, at 301; 37 C.F.R. § 1.56(a) (2012).

147 Vacca, supra note 1, at 301.

148 Id.

149 Id.

150 Id. (citing H.R. Rep. No. 112-98, pt. 1, at 40 (2011)).

151 Id.

152 Id. at 301 n.158 (citing generally Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 382 U.S. 172 (1965)).

153 18 U.S.C. § 3282(a) (2012); United States v. Smith, 740 F.2d 734, 736 (9th Cir. 1984).

154 324 F.3d 1158 (10th Cir. 2003).

155 Id. at 1165.

156 Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 3(k)(1), 125 Stat. 284, 291 (2011) (codified at 35 U.S.C. § 32). Ethical violations before the PTO were previously subject to a five-year statute of limitations found in 28 U.S.C. § 2462. Scheinbein v. Dudas, 465 F.3d 493, 496 (Fed. Cir. 2006).

157 Vacca, supra note 1, at 302.

158 Id.

159 Id. at 302-03.

160 Id. at 303.

161 Id.

162 Id.

163 Vacca, supra note 1, at 303.

164 Id. (citing U.S. Const., art I, § 8, cl. 8).

165 Id.

166 Id.

167 Id.

168 Id.

169 Vacca, *supra* note 1, at 303-04.

170 Id. at 295.

171 Robert Frost, *The Road Not Taken* (1916), available at [http:// www.poemhunter.com/poem/the-road-not-taken/](http://www.poemhunter.com/poem/the-road-not-taken/).

172 489 U.S. 141 (1989).

173 Id. at 146 (citation omitted).

174 Id.

175 Id. at 149 (quoting *Metallizing Eng'g Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 520 (2d Cir. 1946)).

176 Id. at 150-51.

177 *Kewanee Oil Co. v. Bicon Corp.*, 416 U.S. 470, 480-81 (1974); *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1050 (Fed. Cir. 1995). See also *Teleflex, Inc. v. Ficoso N. Am. Corp.*, 299 F.3d 1313, 1330 (Fed. Cir. 2002).

178 *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 967 (Fed. Cir. 2001). See also *Kewanee Oil*, 416 U.S. at 484.

179 *Bonito Boats*, 489 U.S. at 146.

180 *Grant v. Raymond*, 31 U.S. 218, 233 (1832).

181 Id. at 231.

182 See, e.g., *Kewanee Oil*, 416 U.S. at 480 (stating that patent law requires an inventor to disclose).

183 See, e.g., Vacca, *supra* note 1, at 283.



184 See Andrew R. Shores, Changes to the Best Mode Requirement in the Leahy-Smith America Invents Act: Why Congress Got it  
Right, 34 Campbell L. Rev. 733, 740-41 (2012); Steven B. Walmsley, Best Mode: A Plea to Repair or Sacrifice this Broken  
Requirement of United States Patent Law, 9 Mich. Telecomm. Tech. & L. Rev. 125, 126, 162-63 (2002).

185 Shores, *supra* note 184, at 736; Vacca, *supra* note 1, at 283.

186 18 F. Cas. 979, 984 (C.C.E.D. Mich. 1857) (No. 10,662). See also Shores, *supra* note 184, at 736; Vacca, *supra* note 1, at 283.

187 Page, 18 F. Cas. at 984.

188 See *supra* notes 20-29 and accompanying text.

189 Patent Act of 1870, ch. 230, § 26, 16 Stat. 198, 201; Shores, *supra* note 184, at 736; Vacca, *supra* note 1, at 283.

190 Page, 18 F. Cas. at 981-82.

191 See *Graham v. John Deere Co.*, 383 U.S. 1, 10-11 (1966) (noting that Congress has historically left it to the courts to develop  
conditions of patentability beyond the minimal tests of novelty and utility).

192 See *supra* notes 185-87, 189, 191, and accompanying text.

193 See *supra* note 26 and accompanying text.

194 U.S. Const. art. I, § 8, cl. 8; *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150-51 (1989).

195 See, e.g., *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1085-86 (Fed. Cir. 2012).

196 *Grant v. Raymond*, 31 U.S. 218, 231 (1832).

197 *Extended-Release Capsule Patent Litig.*, 676 F.3d at 1085 (citing *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 963 (Fed. Cir.  
2001)).

198 *Dickerson v. United States*, 530 U.S. 428, 431-32 (2000).

199 384 U.S. 436 (1966).

200 *Dickerson*, 530 U.S. at 432.

201 *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989).

202 *Id.*

203 Vacca, supra note 1, at 285; Dale L. Calson et. al., Patent Linchpin for the 21<sup>st</sup> Century?--Best Mode Revisited, 45 IDEA 267, 270-72 (2005).

204 Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 480-81 (1974); Calson et al., supra note 203, at 270-72.

205 See Kewanee Oil, 416 U.S. at 481 (explaining the importance of disclosure to the progress of the art).

206 See id. at 480-81 (explaining how the patent laws promote the progress of science and the useful arts by providing exclusivity in exchange for disclosure); Calson, supra note 203, at 270-72.

207 Calson, supra note 203, at 270-72

208 Kewanee Oil, 416 U.S. at 481 (noting that the disclosure of a patent stimulates “ideas and the eventual development of further significant advances in the art”).

209 Id.

210 See supra notes 83-89 and accompanying text.

211 Vacca, supra note 1, at 294.

212 Kewanee Oil, 416 U.S. at 481, 484 (noting that by definition a trade secret is not in the public domain whereas patent law requires public disclosure of the information); Carlson, supra note 203, at 270-72; Brian J. Love & Christopher Seaman, Best Mode Trade Secrets, 15 Yale J.L. & Tech. 1, 12, 14-15 (2012).

213 See Kewanee Oil, 416 U.S. at 481; Carlson, supra note 203, at 270-72.

214 Graham v. John Deere Co., 383 U.S. 1, 6 (1966) (citation omitted).

215 Id.

216 Id.

217 Id. at 5.

218 Id. at 7.

219 Id. at 7-8.

220 Graham, 383 U.S. at 7.

221 Id. at 9.

222 Id.

223 Id.

224 One of my former employers, a retired federal judge in Kentucky, relished using the phrase, “Counselor, that dog don’t hunt!” when he was presented with a frivolous or ridiculous legal argument.

225 Shores, supra note 184, at 740-41; Vacca, supra note 1, at 287-89; Walmsley, supra note 184, at 162-63.

226 H.R. Rep. No. 112-98, pt. 1, at 52 (2011).

227 Shores, supra note 184, at 744; Walmsley, supra note 184, at 162-63.

228 Shores, supra note 184, at 745.

229 Id.

230 H.R. Rep. No. 112-98, pt. 1, at 52 (2011).

231 Id. See also 35 U.S.C. § 112 (2006) (providing the that specification shall set forth the best mode contemplated by the inventor).

232 Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 481 (1974).

233 Id.

234 Shores, supra note 184, at 743.

235 Id.

236 Id.

237 Id. (citations omitted).

238 Id. at 743-44 (citation omitted).

239 Id. at 744 (citation omitted).

240 Shores, supra note 184, at 744.

241 Id.

242 U.S. Const. art. I, § 8, cl. 8.

243 Shores, *supra* note 184, at 741.

244 Id.

245 Id.

246 Id.

247 Id.

248 Id.

249 Shores, *supra* note 184, at 741.

250 Wesley D. Markham conducted an empirical analysis regarding best mode cases and made the following observations: In the author's study of reported U.S. district court patent cases from 2005 through 2009, the courts discussed a best mode challenge in only fifty out of 7891 cases, or 0.6% of the cases. In other words, the outcome of a patent lawsuit only depends on best mode issues in a small fraction of cases. This suggests that accused infringers either do not often raise a best mode defense, or raise a best mode defense but do not press it very hard. Even when litigants do press a best mode defense, it is usually unsuccessful. Of the fifty reported U.S. district court patent cases from 2005 through 2009 in which the court ruled on best mode, the best mode challenge failed thirty-seven times, or 74.0% of the time, and prevailed only nine times, for a success rate of 18.0%. According to a prior study of all written, final validity decisions by either district courts or the Federal Circuit reported in the United States Patent Quarterly from 1989 through 1996, the best mode defense succeeded in sixteen out of forty-five cases, or 35.6% of the time. Both studies show that best mode is not typically a winning defense, particularly when compared to the success rates of other common defenses in patent litigation. For example, the success rates for the invalidity defenses of double patenting, anticipation under 35 U.S.C. § 102, lack of enablement, and obviousness, have been measured at 71.4%, 49.4%, 36.1%, and 36.3%, respectively. No common thread among the successful best mode challenges at the district court level is readily apparent. In some instances, courts stressed the patentees' bad faith when holding patents invalid for failing to comply with the best mode requirement. In another instance, the court found a best mode violation without any evidence of bad faith at all. The Federal Circuit is even more hostile to best mode challenges than the district courts are. In 2002, the Federal Circuit noted, "[i]n the history of this court and our predecessor courts, we have held claims invalid for failure to satisfy the best mode requirement on only seven occasions." According to this author's research on more recent reported decisions, the Federal Circuit has addressed the best mode requirement thirteen times from 2002 to 2009. Of those thirteen cases, the court affirmed a district court's holding that there was a best mode violation only once. Of the remaining twelve cases, the Federal Circuit affirmed a district court's finding that there was no best mode violation five times; reversed a district court's finding that there was a best mode violation five times; and never reversed a district court's holding that no best mode violation had occurred. Based on these statistics, even if an accused infringer puts on a substantial best mode defense, which is rare, and wins on best mode at trial, which is unlikely, the probability that the Federal Circuit will affirm a finding of invalidity based on best mode is low. Therefore, the best mode requirement does not play a significant role in the outcome of patent cases as a whole. Wesley D. Markham, *Is Best Mode the Worst? Dueling Arguments, Empirical Analysis, and Recommendations for Reform*, 51 IDEA 129, 150-51 (2011) (citations omitted).

251 Shores, *supra* note 184, at 741.

252 Id. at 742.

253 Id.

254 Id.

255 Id. (citing Markham, supra note 250, at 142-43).

256 Id.

257 Shores, supra note 184, at 742.

258 Id.

259 Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 492 (1974).

260 Id.

261 Id.