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DAVID E. BOUNDY

MAILING: P.O. Box 590638, NEWTON, MA 02459  
PHONE: 646.472.9737

E-MAIL: [DBOUNDY@CAMBRIDGETECHLAW.COM](mailto:DBOUNDY@CAMBRIDGETECHLAW.COM)  
HTTP://[WWW.CAMBRIDGETECHLAW.COM](http://WWW.CAMBRIDGETECHLAW.COM)



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# “Nonfunctional Descriptive Material” vs. “Printed Matter”

## The PTAB’s Defiance of Federal Circuit Precedent

By David E. Boundy

One of the truly remarkable phenomena in the history of both patent law and administrative law is the five-decade dispute between the Board of Patent Appeals and Interferences (BPAI or Board), now the Patent Trial and Appeal Board (PTAB or Board), and the Federal Circuit on the definition of “printed matter.”

For over 50 years, the Court of Customs and Patent Appeals (CCPA) and its successor, the Federal Circuit, have been consistent in defining a “printed matter” rule: claim language that consists of “printed lines or characters, useful and intelligible *only* to the human mind,” recited for the information content it communicates, and not “functionally related to its substrate,” may be denied patentable weight for § 102 and § 103 purposes. The two courts have held several times that the “printed matter” rule has no relevance to computer data.<sup>1</sup>

In contrast, the Board has settled into a long-term disagreement with the Federal Circuit. The PTAB’s view is that any “nonfunctional descriptive material” (a term that is nowhere defined) is to be denied patentable weight for § 102 and § 103 purposes, even if it is computer data entirely imperceptible to humans,<sup>2</sup> and that the relationship between computer data and its containing memory is generally not “functional.”

The Board adheres to this view despite the Federal Circuit’s regular warnings under administrative law that “[j]udicial precedent is as binding on administrative agencies as are statutes,” and “the PTO lacks the substantive

rulemaking authority to administratively set aside judicial precedent”;<sup>3</sup> and under substantive law that the Federal Circuit is “notably weary” in reminding the Board that the “printed matter” rule does not apply to computer data.<sup>4</sup>

It is hard to explain the Board’s view as anything other than brazen defiance. Further, it is hard to square the Board’s assertion of rulemaking authority with any principle of administrative law. The Board’s “nonfunctional descriptive material” errors have imposed *immense* costs on the public: a 2017 webinar noted that the U.S. Patent and Trademark Office (USPTO) has invoked “nonfunctional descriptive material” in over 34,000 office actions, mostly in the computer arts where the Federal Circuit tells us it should have “no relevance.”<sup>5</sup> At \$3,200 each,<sup>6</sup> the Board’s errors have imposed costs well over \$100 million on this issue alone.

This article discusses the long-standing conflict between the Board and Federal Circuit. This article appeals to the principle of *res ipsa loquitur* to suggest that there is a systemic problem in the USPTO’s legal apparatus, and recommends several corrective actions.

### The Federal Circuit’s “Printed Matter” Rule

For nearly 100 years, the CCPA and Federal Circuit have applied a “printed matter” rule, under which claim language directed to printed matter may be denied patentable weight in a § 102 or § 103 rejection.<sup>7</sup> The typical “printed matter” case involves a new use of an old apparatus, claimed as the old apparatus with paper instructions (or merely “instructing” on no recited

substrate) for the new use.<sup>8</sup> Courts deny patentable weight to the printed matter claim language, to prevent unwarranted term extension.<sup>9</sup> On the other hand, if printed matter is “functionally related” to the substrate, then the printed matter claim language is given patentable weight. The famous example of “functionally related” printed matter is a set of measuring cups: one cup has the measurements printed at double their true values, one triple, one half, one a third, etc., to make it easy to measure out ingredients for double recipes, half recipes, and the like.<sup>10</sup>

The Federal Circuit has *never* applied a “nonfunctional descriptive material” rule. Indeed, the court has squarely repudiated such a rule. Not once. Not twice. At least three times.<sup>11</sup> There is only a “printed matter” rule: in every case since the 1970s in which the court has applied any such exception, the printed matter was a set of instructions printed on paper, or instructions to humans with no recited substrate.<sup>12</sup> Conversely, in every Federal Circuit case involving data stored in a memory for processing by a computer, the court has rejected applicability of the “printed matter” rule—computer data is not “printed matter.”<sup>13</sup>

The Federal Circuit’s case law sets out a number of principles:

- “Printed matter” is evaluated in a two-step process.<sup>14</sup>
- The first step of the “printed matter” analysis is the “determination that the limitation in question is in fact directed toward printed matter.”<sup>15</sup> The Federal Circuit has made clear that there is no analogy to be drawn between data stored in the memory of a computer and “printed matter.”<sup>16</sup>
  - Any “printed matter” exception applies only to “printed lines or characters, useful and intelligible *only* to the human mind.”<sup>17</sup> The printed matter exception is limited to “indicia whose primary purpose is the conveying of intelligence to a reader.”<sup>18</sup>
  - The exception has “no factual relevance” when “the invention as defined by the claims *requires* that the information be processed not by the mind but by a machine, the computer.”<sup>19</sup> For example, printed bar code markings to be read by an optical reader machine are not “printed matter.”<sup>20</sup>
  - As “a necessary condition for falling into the category of printed matter, a limitation is printed matter only if it claims the content of information.”<sup>21</sup> Language describing “where the information came from, its ‘origin,’ is not part of the informational content at all.”<sup>22</sup>
  - It was “erroneous” for the Board to extend a printed matter rejection to a new field that involves information stored in a memory.<sup>23</sup>
- *Only after satisfying all these tests under step one* for “printed matter” does the inquiry proceed to step two, to ask whether the printed matter is functionally or structurally related to the associated physical substrate.<sup>24</sup>
- The phrase “nonfunctional descriptive material” (in the relevant context) is absent from Federal Circuit decisions, except when the Federal Circuit paraphrases the Board’s reasoning—and then disapproves it.<sup>25</sup> The phrase “nonfunctional descriptive material” is a whole-cloth fabrication of the Board.
- The Federal Circuit has twice stated that it is “notably weary” in reminding the USPTO of these principles.<sup>26</sup>

*In re Lowry* is a 1994 case that discusses “printed matter” at length with respect to computer data. Lowry’s invention involved data structures in a database, an arrangement of pointers to allow various data items to be correlated to each other.<sup>27</sup> *Lowry* rejects the USPTO’s assertion of “non-functional descriptive material.” The reasoning is not subtle or equivocal: *Lowry*’s discussion is over 1,000 words long, identifying multiple errors in the Board’s reasoning and multiple reasons that data in the memory of a computer is *not* “printed matter.” *Lowry* leaves no wiggle room to doubt that computer-stored data that alters a computer’s function or execution (such as programs, or data structures that assist in finding data in the memory) is not “printed matter,” and even if it were, it is “functional.”<sup>28</sup> *Lowry* quotes an earlier CCPA case to remind the USPTO that the court is “notably weary” in reminding the USPTO of these principles,<sup>29</sup> and repeats its earlier seemingly watertight holding that “[t]he printed matter cases have no factual relevance where ‘the invention as defined by the claims *requires* that the information be processed not by the mind but by a machine, the computer.’”<sup>30</sup>

The most recent “printed matter” case is *In re DiStefano* from 2015.<sup>31</sup> In *DiStefano*, certain data structures were recited based on where the data had come from. The Board had held that the data was “nonfunctional descriptive material.” The Federal Circuit reversed. *DiStefano* made explicit a point that had been implicit for decades: the evaluation of “printed matter” and “functionally related” are two different questions that must be separated into two steps. *DiStefano* also added another constraint on step one: to be “printed matter,” the claim language must claim “the content of information.”<sup>32</sup>

### Administrative Law Limits the PTAB’s Rulemaking Authority

The PTAB’s authority to opine on issues of substantive law and to bind future parties by “precedential” opinion is limited by the administrative law as follows<sup>33</sup>:

- With the exception of a few “islands” of substantive rulemaking authority (e.g., 35 U.S.C. § 316(a) and § 326(a)), no statute grants the USPTO (let alone the PTAB) authority to promulgate substantive rules.<sup>34</sup>
- All grants of rulemaking authority in the Patent Act delegate that authority to the agency, the Director, or the Secretary of Commerce, not the PTAB.<sup>35</sup> The PTAB has neither rulemaking nor policy-setting authority.
- The Administrative Procedure Act specifies certain procedural requirements for any agency pronouncement to which the agency intends to attach binding prospective effect—notice, publication in the *Federal Register*, public comment, etc.<sup>36</sup> The PTAB has *never* observed those statutory requirements for its precedential decisions.

Like any other agency adjudicatory tribunal, the PTAB may interpret genuine *ambiguities*, and apply those

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**David E. Boundy** is a partner at Cambridge Technology Law. He practices at the intersection of patent and administrative law and consults with other firms on court and administrative agency proceedings, including PTAB trials and appeals. He can be reached at [dboundy@cambridgetechlaw.com](mailto:dboundy@cambridgetechlaw.com).



interpretations in individual cases.<sup>37</sup> However, the effect for future cases is governed by the same rulemaking law that applies to any other agency, and is asymmetric:

- The PTAB may “interpret” “genuine ambiguities” in a statute or regulation with the limited binding effect of an “interpretative rule,”<sup>38</sup> but may not gap-fill unless the Director exercises full legislative procedure to promulgate a “regulation.”<sup>39</sup>
- Against the public, with only narrow exceptions, the USPTO may not rely on a past interpretation promulgated without notice and comment as the last word on a subject; rather, the USPTO must entertain and respond to alternative positions.<sup>40</sup>

There appears to be no valid basis under administrative law or the Patent Act for the PTAB to exercise binding rulemaking authority on an issue of substantive patent law (outside those “islands”).

### Board Cases after *Lowry* Directly Clash with Federal Circuit Precedent

After *Lowry*, the Board responded with a series of anomalies.

#### *Ex parte Curry, a 2005 Informative Opinion*

Ten years after *Lowry*, the Board decided *Ex parte Curry*, a case involving data in a database, and designated it “informative.”<sup>41</sup> *Curry* conflicts with Federal Circuit precedent: the Federal Circuit’s *Lowry* states that the “printed matter” rule has no relevance to data stored in the memory of a machine for processing by the machine, but *Curry* holds that data “in a database” is “nonfunctional descriptive material” that may be denied weight.<sup>42</sup> *Curry* misquotes the Federal Circuit—when the Federal Circuit uses the words “printed matter,” the Board’s citation of the relevant cases changes the words to “descriptive material.”<sup>43</sup> *Curry* omits any mention of *Lowry*, even though *Lowry* was argued in the appeal brief, examiner’s answer, and reply brief.<sup>44</sup> *Curry* then improvises an alternative “nonfunctional descriptive material” test that has no antecedent in any known authority.<sup>45</sup>

The administrative law issues are just as stark. *Curry* is only an “informative” decision. The top of the page bears the legend: “The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.” Because the Board did not follow the procedures set out in the Administrative Procedure Act (e.g., 5 U.S.C. § 552(a)(1)–(2) and § 553) that are necessary prerequisites to the agency even citing *Curry*, one would expect that we would never hear from *Curry* again. Similarly, the Board’s Standard Operating Procedure 2, “Publication of Opinions and Designation of Opinions as Precedential, Informative, Representative, and Routine” (SOP2),<sup>46</sup> promises that no nonprecedential decision will be treated as precedent.

The Board avoided citing *Curry* for 17 months. But once the dam broke in November 2006,<sup>47</sup> the Board cited the uncitable *Curry* 12 times more in 2007, and then in 2008 . . .

#### *Ex parte Nehls, a 2008 Precedential Decision*

In 2008, the Board expanded its “nonfunctional descriptive material” departure from the Federal Circuit in a precedential

decision of an expanded panel, *Ex parte Nehls*.<sup>48</sup> The Board found claims to a computer with specific data in its memory to be obvious.<sup>49</sup> As in *Curry*, the Board did not compare the claims to prior art. Instead, the Board denied weight to the relevant claim language, citing *Curry* (as if it were precedential, in clear violation of the Board’s statutory and self-regulatory obligations *not* to cite nonprecedential decisions).<sup>50</sup> *Lowry* is addressed in a single footnote:

[T]he *Lowry* court stated that the “printed matter cases have no factual relevance where ‘the invention as defined by the claims requires that the information be processed not by the mind but by a machine, the computer.’” That statement [in *Lowry*], however, must be regarded as dictum, because the court went on to conclude that the data structures at issue in *Lowry* were not analogous to printed matter. Thus, the quoted statement was not essential to the *Lowry* holding. The *Lowry* court did not consider whether, and under what circumstances, computer-readable information that is analogous to printed matter can distinguish a claimed invention from the prior art.<sup>51</sup>

To be sure, *Lowry* gives multiple alternative grounds for its decision—several under step one (e.g., when “the claims require[] that the information be processed not by the mind but by a machine, the computer,” it is not printed matter) and another under step two (*Lowry*’s particular data, a physical arrangement of the data that helps a computer process data more efficiently, is “functional”).<sup>52</sup> But the Board erred in dismissing the quoted *Lowry* statement as dicta: “essential to the holding” (in the sense of “alternative grounds”) is a test for issue preclusion, not for dictum. A search of all federal appellate courts for “alternative grounds” in the context of “dictum” yields only one case in which a party even raised the issue. The court rejected the proposition.<sup>53</sup>

Further, dismissing reasoning as “dictum” is a power usually reserved for a tribunal of the same level. Subordinate tribunals do not ordinarily dismiss their reviewing tribunals’ alternative grounds as “dictum,” especially when (1) the “dictum” quotes two prior decisions, (2) the relevant language is the central analysis (not an offhand remark), and (3) the reviewing tribunal notes that it is “notably weary” in issuing the same instructions that the subordinate tribunal now dismisses as “dictum.”<sup>54</sup>

The *Nehls* panel leaves six points unexplained: (1) what alternative “analogy” it believes to be more apt than *Lowry*’s “machine” versus “human mind” rationale; (2) where the panel derived authority to replace *Lowry*’s analysis with its own; (3) where the panel discerned authority to create a new legal term, “nonfunctional descriptive material,” instead of following the Federal Circuit’s lead and using the term “printed matter”; (4) what authority the *Nehls* panel had to cite the “informative” *Curry*;<sup>55</sup> (5) any limiting principle; and (6) why the Federal Circuit, already “notably weary” of explaining how computer data is *not* analogous to “printed matter,” should explain the principles of “printed matter” once again.

Ironically, *Nehls* easily could have been decided on classical obviousness grounds, for example, obviousness of a claimed species within a disclosed genus.<sup>56</sup>

### Ex parte Mathias, a 2005 Informative Opinion

The Board designated as “informative” a third case, *Ex parte Mathias*.<sup>57</sup> Because the *Mathias* application remains confidential under pre-1999 § 122, the briefs are not available, so it is hard to discuss it in any depth. *Mathias* is only “informative,” so it should not be cited as precedent. Nonetheless, the Board cites it about two dozen times a year.<sup>58</sup>

### The PTAB’s Current Practice for “Nonfunctional Descriptive Material”

*Nehls*, *Curry*, and *Mathias* remain listed on the PTAB’s list of precedential and informative opinions as of September 14, 2019. The PTAB’s view of the substantive law and its own authority, as expressed in continued listing of these three decisions, is puzzling.

The PTAB’s “nonfunctional descriptive material” decisions neglect to explain how the PTAB surmounted several statutory barriers to the rulemaking jurisdiction it purported to exercise:

- On their faces, these decisions are substantive rulemaking, outside the USPTO’s rulemaking authority.<sup>59</sup>
- The PTAB has no authority to promulgate any rules (substantive or procedural) on its own authority—rulemaking is a power of the Director.<sup>60</sup>
- The PTAB is “not free to refuse to follow [Federal Circuit] precedent.”<sup>61</sup>
- What exception to the Administrative Procedure Act might permit the PTAB to cite nonprecedential decisions?

Equally puzzling, while the reasoning of recent “descriptive material” PTAB decisions is easy to reconcile with *Nehls* and *Curry*, any effect of *Lowry* or *DiStefano* on the PTAB’s deliberative process is not apparent—no recent PTAB decision includes (accurate) quotes from *Lowry* to distinguish, let alone to follow.<sup>62</sup> Even after *DiStefano* clearly held that there is only a “printed matter” rule, reached after a step one separates “printed matter” from other “descriptive material,” the PTAB regularly issues decisions that skip over the first of the Federal Circuit’s two steps, and brazenly misquotes court precedent to resurrect its “descriptive material” rule. Three of the most recent PTAB decisions applying *Nehls* are disappointing:

- In *Ex parte Dearing*,<sup>63</sup> from June 2019, the PTAB makes several striking errors. First, the PTAB applies a rule relating to “nonfunctional descriptive material (NFD)M which is data” but cites *only the PTAB’s own cases*, several of which bear legends that they are *not* to be cited as precedent. Second, the PTAB entirely ignores the Federal Circuit—not a single cite.
- In *Ex parte Schulz*,<sup>64</sup> from May 2019, the PTAB misquotes the Federal Circuit cases it purports to rely on, entirely ignores *Lowry* and *DiStefano* (the two most recent precedential Federal Circuit cases most analogous to the *Schulz* facts), and cites the uncitable *Mathias* and *Curry*.
- In *Ex parte Cohen-Solal*,<sup>65</sup> the PTAB cites MPEP § 2111.05 and *Nehls* as its only sources of law, with not a single mention of the Federal Circuit. Of course neither the MPEP nor the PTAB has any authority to offer any prospective view on an issue of substantive law.

Even more striking, when the PTAB decided *Cohen-Solal*, MPEP § 2111.05 had been revised a year earlier to remove the phrase “nonfunctional descriptive material.”<sup>66</sup>

Older decisions of the PTAB are just as disappointing.

For example, two years after the Federal Circuit in *DiStefano* held that there is no such thing as “descriptive material,” only a “printed matter” rule, and that rule is *not* invoked by claim language that specifies the origin of the data, the PTAB held that computer data “obtained by parallel projection” is “nonfunctional descriptive material.”<sup>67</sup>

An example of the PTAB’s misunderstanding of its own jurisdiction is *Ex parte Campbell*,<sup>68</sup> from 2012, which reads: “As a precedential opinion, under agency authority (SOP2), *Nehls* is binding on all members of the Board, and by extension, is also binding authority on every member of the public who files an appeal to the Board.” One sentence makes two errors of administrative law. SOP2 cannot be relied on in contexts that are adverse to any member of the public, and cannot be cited as a bootstrapped self-grant to the PTAB of substantive rulemaking authority—that can only come from Congress.<sup>69</sup> PTAB decisions on substantive law are *not* binding authority on *any* member of the public.

### Recommendations

The PTAB’s handling of the “printed matter” rule gives diagnostic insight into multiple misunderstandings of the law. This single issue has created \$100 million of costs for inventors.<sup>70</sup> What should be done?

- Several of the PTAB’s precedential and informative decisions on “nonfunctional descriptive material” (*Nehls*, *Curry*, and *Mathias*) should be de-designated:
  - The reasoning of these specific decisions squarely conflicts with Federal Circuit case law.<sup>71</sup>
  - The PTAB has no authority to issue “precedential” decisions on issues of substantive law.

The bigger problem is the postmortem: How did this happen, and what has to be done to ensure it does not happen again? This kind of defiance by a lower tribunal against its reviewing court does not go on for 50 years without some incentive or cultural norm that self-sustains and self-regenerates error. What is it, and what needs to be done to end it? USPTO management should treat “nonfunctional descriptive material” as a symptom of a systemic failure<sup>72</sup>:

- The USPTO should implement three directives from the Executive Office of the President designed to help agencies stay within the law: Executive Order 13,891, “Promoting the Rule of Law through Improved Agency Guidance Documents”; Executive Order 13,892, “Promoting the Rule of Law through Transparency and Fairness in Civil Administrative Enforcement and Adjudication”; and the “Bulletin for Agency Good Guidance Practices.”<sup>73</sup>
- The USPTO needs a “chief compliance officer,” analogous to any private sector company: someone with the deep knowledge of the relevant body of law, the devotion to the rule of law (and to protecting the client from the problems that arise through breach) to ensure that the law is carried out, and enforcement power within the organization. ■

## Endnotes

1. *E.g.*, *In re Lowry*, 32 F.3d 1579, 1583–84 (Fed. Cir. 1994) (data recited to reside in computer memory is not “printed matter,” and thus not subject to the rule); *In re Bernhart*, 417 F.2d 1395, 1399 (C.C.P.A. 1969) (limiting the “printed matter” doctrine to “arrangements of printed lines or characters, useful and intelligible only to the human mind,” never applicable to information “processed not by the mind but by a machine”); *In re Jones*, 373 F.2d 1007, 1012, 1014 (C.C.P.A. 1967) (in a case related to printed indicia for reading by an electrical optical scanner, “what the Patent Office deems to be printed matter in the disc we consider to be structure,” and holding that the “printed matter” rule applies only to “indicia whose primary purpose is the conveying of intelligence to a reader”).
2. *Ex parte Nehls*, 88 U.S.P.Q.2d 1883, 1887 (B.P.A.I. 2008) (using “nonfunctional descriptive material” language instead of “printed matter,” even when citing to Federal Circuit decisions that use the latter phrase); *Ex parte Curry*, 84 U.S.P.Q.2d 1272, 1274 (B.P.A.I. 2005) (same).
3. *Koninklijke Philips Elecs. N.V. v. Cardiac Sci. Operating Co.*, 590 F.3d 1326, 1336–37 (Fed. Cir. 2010); *see also Merck & Co. v. Kessler*, 80 F.3d 1543, 1549–50 (Fed. Cir. 1996) (the broadest of the USPTO’s rulemaking powers “does NOT grant the Commissioner the authority to issue substantive rules”).
4. *Lowry*, 32 F.3d at 1583 (“A ‘printed matter rejection’ under § 103 stands on questionable legal and logical footing. . . . [The CCPA], notably weary of reiterating this point, clearly stated that printed matter may well constitute structural limitations upon which patentability can be predicated.”); *In re Gulack*, 703 F.2d 1381, 1385 n.8 (Fed. Cir. 1983) (same); *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974) (“We have commented on this matter [in two recent cases] and will not repeat ourselves.”); *see also In re Wirth*, 563 F. App’x 777, 778–79 (Fed. Cir. 2014) (nonprecedential) (dismissing the PTAB’s view that computer data is “nonfunctional descriptive matter” in a single sentence: “[We] disagree with the Board’s application of the printed matter doctrine,” with the clear implication that the Federal Circuit disapproves the use of the phrase “descriptive matter” and is quite insistent that the rule is limited to “printed matter”).
5. *Cf.* Chris Holt & Megan McLoughlin, “Alice” Before “Alice,” BETTER PATENTS NOW (Apr. 17, 2017), <https://bpn.podbean.com/e/alice-before-alice-8>. *See generally* David E. Boundy, *Agency Bad Guidance Practices at the Patent and Trademark Office: A Billion Dollar Problem*, 2018 PATENTLY-O PAT. L.J. 20 [hereinafter Boundy, *Agency Bad Guidance Practices*].
6. Reported national average for a relatively complex patent application amendment/argument in the electrical or computer arts. AM. INTELLECTUAL PROP. LAW ASS’N, REPORT OF THE ECONOMIC SURVEY (2013).
7. *In re DiStefano*, 808 F.3d 845, 848 (Fed. Cir. 2015); *In re Ngai*, 367 F.3d 1336, 1338–39 (Fed. Cir. 2004); *Gulack*, 703 F.2d at 1384–85.
8. *E.g.*, *Praxair Distribution, Inc. v. Mallinckrodt Hosp. Prods. IP L.P.*, 890 F.3d 1024, 1032–33 (Fed. Cir. 2018) (“providing information” to a human on no recited substrate is “printed matter” (or mental steps analogous to printed matter)); *AstraZeneca LP v. Apotex, Inc.*, 633 F.3d 1042, 1064–65 (Fed. Cir. 2010) (a printed label indicating dosing instructions is subject to the exception); *Ngai*, 367 F.3d at 1339 (printed instructions added to a known kit are subject to the exception); *cf.* *King Pharm., Inc. v. Eon Labs, Inc.*, 616 F.3d 1267, 1279 (Fed. Cir. 2010) (applying analogous reasoning to “informing” a human, with no recited substrate).
9. *Ngai*, 367 F.3d at 1339; *Gulack*, 703 F.2d at 1384–85.
10. *In re Miller*, 418 F.2d 1392, 1396 (C.C.P.A. 1969).
11. *See* cases cited *supra* note 4.
12. *See* cases cited *supra* note 8. There is one nonprecedential exception, a case argued by a pro se, in which the appellant apparently did not raise the issue.
13. *See* cases cited *supra* notes 1, 4.
14. *In re DiStefano*, 808 F.3d 845, 848–49 (Fed. Cir. 2015); *In re Lowry*, 32 F.3d 1579, 1583–84 (Fed. Cir. 1994); *In re Bernhart*, 417 F.2d 1395, 1399 (C.C.P.A. 1969).
15. *See* cases cited *supra* notes 1, 14.
16. *Lowry*, 32 F.3d at 1583.
17. *Id.* at 1583–84; *Bernhart*, 417 F.2d at 1399; *In re Jones*, 373 F.2d 1007, 1012, 1014 (C.C.P.A. 1967); *see also* cases cited *supra* notes 9, 14.
18. *Lowry*, 32 F.3d at 1583; *Bernhart*, 417 F.2d at 1399; *Jones*, 373 F.2d at 1013.
19. *Lowry*, 32 F.3d at 1583.
20. *Jones*, 373 F.2d at 1013.
21. *DiStefano*, 808 F.3d at 848.
22. *Id.* at 851.
23. *Lowry*, 32 F.3d at 1583.
24. *DiStefano*, 808 F.3d at 851.
25. *See* cases cited *supra* note 4.
26. *See* cases cited *supra* note 4.
27. *Lowry*, 32 F.3d at 1583–84.
28. *Id.*
29. *See* cases cited *supra* note 4.
30. *Lowry*, 32 F.3d at 1583 (quoting *In re Bernhart*, 417 F.2d 1395, 1399 (C.C.P.A. 1969)).
31. 808 F.3d 845, 848–49 (Fed. Cir. 2015).
32. *Id.* at 848.
33. *See generally* David Boundy, *The PTAB Is Not an Article III Court, Part 3: Precedential and Informative Opinions*, 47 AIPLA Q.J. 1 (2019), *updated version available at* <http://ssrn.com/abstract=3258694>, § II.A, at \*6–7 [hereinafter Boundy, *Precedential and Informative Opinions*].
34. *See* cases cited *supra* note 3.
35. An analysis of the USPTO’s various grants of rulemaking authority is in Boundy, *Precedential and Informative Opinions*, *supra* note 33, § II.B.1, at \*13–14. *See also* *Martin v. Occupational Safety & Health Review Comm’n*, 499 U.S. 144, 154 (1991) (“Insofar as Congress did not invest [the agency’s adjudicatory component] with the power to make law or policy by other means, we cannot infer that Congress expected [the component] to use its adjudicatory power to play a policymaking role.”).
36. *See, e.g.*, 5 U.S.C. §§ 552(a), 553; 44 U.S.C. §§ 3506–3507; 5 C.F.R. § 1320.9(d). These are explored in some depth in Boundy, *Precedential and Informative Opinions*, *supra* note 33, §§ II.B.2–3, at \*15–22.
37. *Kisor v. Wilkie*, 139 S. Ct. 2400, 2410 (2019) (defining “genuine ambiguity” and the circumstances in which such interpretations may have binding effect); *Perez v. Mortg. Bankers Ass’n*, 135 S. Ct. 1199, 1204 (2015) (“[T]he critical feature of interpretive rules is that they are ‘issued by an agency to advise the public of the agency’s construction of the statutes and rules which it administers.’ The absence of a notice-and-comment obligation makes the process of issuing interpretive rules comparatively easier for agencies than issuing



legislative rules. But that convenience comes at a price: Interpretive rules ‘do not have the force and effect of law and are not accorded that weight in the adjudicatory process.’” (citations omitted)). Interpretive rules are discussed in depth in Boundy, *Precedential and Informative Opinions*, *supra* note 33, § II.D, at \*28–33.

38. See *supra* note 37.

39. 35 U.S.C. § 2(b)(2)(B) (the USPTO may promulgate procedural “regulations” in accordance with § 553 procedure); §§ 316(a), 326(a) (“[t]he Director shall prescribe regulations”). At least one court has held that “the structure of [35 U.S.C. § 2(b)(2)] makes it clear that the USPTO must engage in notice and comment rulemaking when promulgating rules it is otherwise empowered to make—namely, procedural rules.” *Tafas v. Dudas*, 541 F. Supp. 2d 805, 812 (E.D. Va. 2008), *reinstated sub nom.* *Tafas v. Kappos*, 586 F.3d 1369, 1371 (Fed. Cir. 2009). The USPTO acquiesced and bound itself when it moved to dismiss the *Tafas* appeal on grounds of mootness.

40. This is explored at depth in Boundy, *Precedential and Informative Opinions*, *supra* note 33, §§ II.B.1, II.G, at \*7–14, \*37–41.

41. *Ex parte* Curry, 84 U.S.P.Q.2d 1272, 1272 (B.P.A.I. 2005) (informative).

42. *Id.* at 1274–75. *Contra In re* Lowry, 32 F.3d 1579, 1583–84 (Fed. Cir. 1994).

43. *Curry*, 84 U.S.P.Q.2d at 1274.

44. See Curry’s file history, No. 09/449,237, including the Appeal Brief at 12 (Oct. 8, 2003), the Examiner’s Answer at 14 (Apr. 2, 2004), and the Reply Brief at 3 (July 8, 2004). To be fair, Curry’s appeal brief argued *Lowry* for a different issue—nonetheless, the PTAB’s failure to even mention the lengthy discussion of *Lowry*, after both parties argued it extensively, is striking.

45. *Curry*, 84 U.S.P.Q.2d at 1275.

46. The noncitation rule of the Administrative Procedure Act is discussed in Boundy, *Precedential and Informative Opinions*, *supra* note 33, § II.B.3, at \*20–22.

47. *Ex parte* Bleizeffer, No. 2006-2354 (B.P.A.I. Nov. 30, 2006).

48. 88 U.S.P.Q.2d 1883, 1897 (B.P.A.I. 2008).

49. *Id.* at 1890.

50. *Id.* at 1889. *Contra* 5 U.S.C. § 552(a)(1)–(2).

51. *Nehls*, 88 U.S.P.Q.2d at 1888 n.3 (citations omitted).

52. *In re* Lowry, 32 F.3d 1579, 1583–84 (Fed. Cir. 1994).

53. *Biltmore Forest Broad. FM, Inc. v. United States*, 555 F.3d 1375, 1383 (Fed. Cir. 2009); see also *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, No. 2018-1367 (Fed. Cir. Dec. 11, 2019) (affirming that an issue is collaterally estopped in a later decision when it is one of two alternative grounds for a previous decision).

54. See cases cited *supra* note 4.

55. E.g., *Ex parte* Kneckt, No. 2017-000119, 2018 WL 5821657, at \*2 (P.T.A.B. Oct. 23, 2018).

56. E.g., *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 963 (Fed. Cir. 2014) (a species claim may be obvious over a disclosed genus).

57. 84 U.S.P.Q.2d 1276 (B.P.A.I. 2005) (informative).

58. E.g., *Ex parte* Dearing, No. 2017-008455 (P.T.A.B. June 27, 2019).

59. See cases cited *supra* note 3.

60. See statutes cited *supra* note 36.

61. *In re* Lee, 277 F.3d 1338, 1344 (Fed. Cir. 2002).

62. E.g., *Ex parte* Huang, No. 2016-005188, 2017 WL 745133, at \*5 n.7 (P.T.A.B. Feb. 23, 2017) (citing *Lowry* with the following parenthetical: “holding informational content of nonfunctional descriptive material is not entitled to patentable weight”). Not only does *Huang* misquote *Lowry*, somehow *Huang* also neglects to mention *DiStefano*.

63. No. 2017-008455, slip op. at 34.

64. No. 2018-003122, slip op. at 15 (P.T.A.B. May 2, 2019).

65. No. 2018-002025 (P.T.A.B. Apr. 30, 2019).

66. The binding effect of the MPEP against the PTAB but not applicants is explained in Boundy, *Precedential and Informative Opinions*, *supra* note 33, § II.E, especially the footnote on page \*32 explaining the *Accardi* doctrine.

67. *Ex parte* Kishikawa, No. 2016-006434, 2017 WL 6939406, at \*4 n.1 (P.T.A.B. Dec. 18, 2017).

68. No. 2010-008367, 2012 WL 2090379, at \*1 n.6 (P.T.A.B. June 8, 2012); see also *Ex parte* Gartner, No. 2017-011378, 2018 WL 3438888, at \*3–4 (P.T.A.B. July 3, 2018) (applying “nonfunctional descriptive material” rule rather than “printed matter” rule).

69. The general limits on an agency’s authority to promulgate rules by adjudication are laid out in Boundy, *Precedential and Informative Opinions*, *supra* note 33, §§ II.B.1, II.C, II.E; and *The PTAB Is Not an Article III Court: A Primer on Federal Agency Rule Making*, 10 *LANDSLIDE*, no. 2, Nov./Dec. 2017, at 9.

70. Boundy, *Agency Bad Guidance Practices*, *supra* note 5, outlines how structural dysfunction in the USPTO’s observance of administrative law costs inventors over \$1 billion per year.

71. See cases cited *supra* note 3; see also Boundy, *Precedential and Informative Opinions*, *supra* note 33, § II.A, at \*6–7.

72. A number of suggestions are offered in Boundy, *Precedential and Informative Opinions*, *supra* note 33, §§ V.C–D, at \*89–98.

73. Final Bulletin for Good Guidance Practices, 72 Fed. Reg. 3432 (Jan. 25, 2007).