The rules and principles of case law have never been treated as final truths, but as working hypotheses, continually retested in those great laboratories of the law, the courts of justice. Every new case is an experiment; and if the accepted rule which seems applicable yields a result which is felt to be unjust, the rule is reconsidered. It may not be modified at once, for the attempt to do absolute justice in every single case would make the development and maintenance of general rules impossible; but if a rule continues to work injustice, it will eventually be reformulated. The principles themselves are continually retested; for if the rules derived from a principle do not work well, the principle itself must ultimately be re-examined.

Benjamin Cardozo, The Nature of the Judicial Process 23 (1921) (Quoting Monroe Smith, Jurisprudence 21 (1909)).
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I. Introduction

Benjamin Cardozo stated in 1921 that case law rules and principles have been treated as working hypotheses and not final truths. Benjamin Cardozo, The Nature of the Judicial Process 23 (1921) (quoted in preface). Cardozo’s learned insight presaged the case law of inequitable conduct in patent procurement. A variety of working hypotheses have ruled over this body of law in relatively brisk succession. One hypothesis of current patent law is that prior art is not material if it is “cumulative” of other prior art of record. Therefore, cumulative prior art does not need to be cited because it is not material. An understanding of this cumulativeness hypothesis, and an assessment of whether it should be reconsidered, requires an analysis of whether it yields results that are just or unjust. See id. The topic, then, is the “experiments” that test the cumulativeness hypothesis.

II. Background of the Cumulativeness Hypothesis

A. Early Origins of Rule 56

The current Rule 56, the PTO rule on mate riality and cumulativeness, begins with the assertion that “[a] patent by its very nature is affected with a public interest.” 37 C.F.R. §1.56 (1997). This is a quotation of Precision Instrument Mfg. v. Automotive Maintenance Machinery Co., 324 U.S. 806, 816, 65 USPQ 133, 138 (1945). The United States Supreme Court affirmed the trial court judgment dismissing the complaint for inequitable conduct. The Court followed that famous "public interest" quotation with a comment on the need for fair procurement of patents: "The far reaching social and economic consequences of a patent . . . gives the public a paramount interest in seeing that patent monopolies spring from backgrounds free from fraud or other inequitable conduct . . . ." Id.

In Kingsland v. Dorsey, 338 U.S. 318, 83 USPQ 330 (1949), the Supreme Court synthesized the duty of candor and good faith to the PTO. The Court borrowed the words of the PTO Committee on Enrollment and Disbarment that previously considered the issue of attorney discipline in that case: "By reason of the nature of an application for patent, the relationship of attorneys to the [PTO] requires the highest degree of candor and good faith." Id. at 319, 330.

From these origins, the PTO promulgated a rule that applications "in connection with which any fraud is practiced or attempted on the [PTO] may be stricken from the files." 37 C.F.R. § 1.56 (1974). The rule did not directly mandate submission of material information.
B. Rule 56 Adopts the "Reasonable Examiner" Materiality Standard

In 1977, under the leadership of Patent Commissioner Marshall Dann, the PTO implemented a new Rule 56. It introduced the "reasonable examiner" materiality standard by stating that "information is material where there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent." *Id.* at § 1.56(a). The PTO adapted this materiality standard from a Supreme Court case applicable to the Securities and Exchange Commission. *See TSC Industries v. Northway*, 426 U.S. 438, 96 S. Ct. 2126, 48 L.Ed.2d 757 (1976). In addition, the PTO believed that lower courts were already following the *TSC Industries* materiality standard in patent cases. *See Notice of Proposed Rulemaking, 42 Fed. Reg. 5588 (1977).*

C. Transformation to the Current Rule 56

1. Initial Leanings Toward the “But For” Materiality Standard

Cases such as *A. B. Dick Co. v. Burroughs Corp.*, 798 F.2d 1392, 230 USPQ 849 (Fed. Cir. 1986), emphasized the unforgiving nature of the "reasonable examiner" materiality standard. In *A.B. Dick*, the applicant’s attorney failed to disclose a prior art reference. However, the examiner became aware of the reference and independently incorporated it into his examination. The Federal Circuit refused to forgive the attorney’s negligence: "Where an . . . attorney knew or should have known that a reference was material, the failure to disclose the reference is sufficient to establish intent." *Id.* at 1398, 854 (citations omitted). The Federal Circuit ruled the patent unenforceable, amplifying cries for revision of Rule 56.

In 1989, Commissioner Donald Quigg proposed a Rule 56 modification. Commissioner Quigg suggested adjusting Rule 56 so that "there would be no violation of the duty if the examiner independently finds the withheld prior art and makes it of record in the application file prior to the issuance of a patent." Proposed Rule, 54 Fed. Reg. 11334 (1989). In short, the new rule would replace the "reasonable examiner" materiality standard with a "but-for" materiality standard:

> [A]ll information not considered by the Office to be of record in an application, which [a specified] individual knows or should have known would render unpatentable any pending claim [should be disclosed]. . . . [T]he duty is violated only if a patent issues with a claim which would be rendered unpatentable by the withheld information when all the facts of record in the patent file and known to the [specified] individuals . . . at the time the patent issues are considered.

Proposed Rule, 54 Fed. Reg. 11334 (1989). The new rule essentially crystallized a "but for" approach to materiality—"but for" the uncited prior art, the patent would not have issued. Commissioner Quigg also stipulated that another benefit of the "but for" test would be an objective perspective. According to Quigg and in contrast to the "reasonable examiner" materiality standard, the issue would not
be what the examiner would have done with the misrepresented or concealed information. Instead, the issue would be whether the information would have made a difference regarding claim patentability. *Id.*

2. **Movement Away from the "But For" Materiality Standard**


Commissioner Manbeck agreed with the PTO senior staff that the "but for" standard went too far in limiting findings of inequitable conduct. The "but for" standard "might allow the withholding of prior information based on tenuous arguments of non-applicability and lead to the issuance of questionable patents and resultant unnecessary litigation and disruption in the market-place." *Id.* Thus, Manbeck withdrew the proposed "but for" materiality standard and posited a new materiality standard:

(b) Under [Rule 56], information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the [Patent] Office, or

(ii) Asserting an argument of patentability.
37 C.F.R. § 1.56(b) (1992). With these changes, Commissioner Manbeck hoped the newly proposed rule would "address criticism concerning a perceived lack of certainty in the [existing] materiality standard." Manbeck, supra. He believed the change would "minimize the burden of litigation on the question of inequitable conduct . . . while providing the Office with the information necessary for effective and efficient examination of patent applications." Id.

D. General Application of the Rules to Litigation

At present, the generalized law on the duty of disclosure, inequitable conduct, burdens of proof of inequitable conduct elements, and standards of appellate review have stabilized (at least temporarily). The statements of Baxter Int’l, Inc. v. McGaw, Inc., 47 USPQ2d 1225, 1998 U.S. App. LEXIS 14902 (Fed. Cir. 1998) are typical:

Inequitable conduct includes affirmative misrepresentations of a material fact, failure to disclose material information, or submission of false material information, coupled with an intent to deceive. Determination of inequitable conduct requires a two step analysis. First, the trial court must determine whether the withheld reference meets a threshold level of materiality. The trial court must then also determine whether the evidence shows a threshold level of intent to mislead the PTO. These threshold determinations are reviewed by [the Federal Circuit] under the clearly erroneous standard of Federal Rule of Civil Procedure 52(a). Once the threshold levels of materiality and intent have been established, the trial court is required to weigh materiality and intent. The more material the omission, the less evidence of intent will be required in order to find that inequitable conduct has occurred. In light of all the circumstances, the court must then determine whether the applicant’s conduct is so culpable that the patent should be held unenforceable. [The Federal Circuit will] review the district court’s ultimate determination of inequitable conduct under an abuse of discretion standard.
Id. at 1229, *14 (citations omitted). The Federal Circuit also has added several specific principles to guide the analysis:

As materiality increases, less intent is required to find inequitable conduct (and vice versa). *N.V. Akzo v. E.I. du Pont de Nemours & Co.*, 810 F.2d 1148, 1153, 1 USPQ2d 1704, 1708 (Fed. Cir. 1987). In determining intent, the court must weigh and analyze all evidence of good faith in addition to all evidence of bad faith. *Kingsdown Med. Consultants v. Hollister, Inc.*, 863 F.2d 867, 873, 9 USPQ2d 1384, 1389 (Fed. Cir. 1988), *cert. denied*, 490 U.S. 1067 (1989). For example, the court in *Akron Polymer Container Corp. v. Exxel Container, Inc.*, Civil Action No. 97-1438 (Fed. Cir. July 20, 1998), reversed a holding of inequitable conduct because an act of good faith put the PTO on notice of a matter, although the specific examiner was not put on notice.

"Proof of the requisite intent does not require evidence of deliberate scheming; in proper circumstances gross negligence is sufficient." *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 992, 6 USPQ2d 1601, 1608 (Fed. Cir. 1988), *citing Driscoll v. Cebalo*, 731 F.2d 878, 885, 221 USPQ 745, 751 (Fed. Cir. 1984); *cf. Halliburton Co. v. Schlumberger Technology Corp.*, 925 F.2d 1435, 1442-43, 17 USPQ2d 1834, 1841 (Fed. Cir. 1991), *quoting Kingsdown*, 863 F.2d at 876, 9 USPQ2d at 1392 ("Gross negligence does not of itself justify an inference of intent to deceive ... unless the negligent conduct is culpable enough ‘to require a finding of intent to deceive.’").

E. Specific Application of the Rules to Allegedly Withheld References

When confronted with a charge of inequitable conduct based on an allegedly withheld reference, the trial court must analyze whether the withheld reference independently meets threshold levels of materiality. *Halliburton*, 925 F.2d at 1439, 17 USPQ2d at 1841. Second, the trial court must analyze whether a threshold intent to mislead the PTO exists. *Id.* The threshold determinations of materiality and intent are questions of fact, required to be proved by clear and convincing evidence, *J.P.Stevens*, 747 F.2d at 1559, 223 USPQ at 1092, and are subject to a clearly erroneous standard of appellate review. *Halliburton*, 925 F.2d at 1439, 17 USPQ2d at 1838.

If the trial court determines the thresholds of materiality and intent are met, then it must finally weigh materiality and intent. *Id.* By weighing the two factors, the court uses its discretion to decide whether the conduct has been so culpable that the patent in issue should be held unenforceable. *Id* at 1439-40, 1838. The court’s ultimate discretionary decision is subject to an abuse of discretion standard of review. *Kingsdown*, 863 F.2d at 876, 9 USPQ2d at 1392.

F. Patent Prosecution Dates Control Which Version of Rule 56 Applies

By example, the Federal Circuit is directing that the Rule 56 applicable at the time of prosecution is the version used in any later inequitable conduct analysis. In the 1998 *Baxter* case, the Federal Circuit utilized the "reasonable examiner" standard instead of the current standard because the prosecution at issue occurred from 1989 to 1991. Similarly, in *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 46 USPQ2d 1097 (Fed. Cir. 1998), the court used the “older PTO rule in effect at the time the instant patent was prosecuted.” *Id.* at 1070 n.8, 1106 n.8.

III. “Cumulativeness” in Practice

A. *Penn Yan* and Section 2004 of the Manual of Patent Examining Procedure

Rule 56 did not mention cumulativeness until the nineties. However, the concept of cumulativeness, in one form or another, has been familiar to the PTO for a longer time. In the late seventies and early eighties, section 2004 of the Manual of Patent Examining Procedure used *Penn Yan Boats, Inc. v. Sea Lark Boats, Inc.*, 359 F.Supp. 948, 175 USPQ 260 (S.D. Fla. 1972) to support an assertion that long lists of prior art should not be cited. John C. Dorfman, *Fraud and Inequitable Conduct Aspects of the Manual of Patent Examining Procedures*, 1982 A.B.A. Sec. Pat., Trademark & Copyright Law Rep. 205 subject 2. Instead of explaining how *Penn Yan* applied, however, the PTO only remarked that "[t]he decisions of the courts make clear the necessity for [preventing citation of long lists of prior art].” *Id.*

In *Penn Yan*, the patent attorney wrote the inventor about a preliminary patent search. The patent attorney described one reference as "most pertinent" and two others as "not particularly
pertinent." *Penn Yan*, 359 F.Supp at 964, 175 USPQ at 271. The patent attorney submitted a list of over a dozen references to the examiner, including those found "not particularly pertinent," while not disclosing the "most pertinent" reference. In addition, the court stated that the patent attorney attempted to "bury" another relevant reference in the list. *Id* at 965, 272. The court found the patent unenforceable.

MPEP section 2004 no longer cites *Penn Yan* as support for the concept of cumulativeness. The MPEP does, however, suggest optional procedures that are relevant to the concept of cumulativeness. After noting that "it is not appropriate to attempt to set forth procedures by which attorneys, agents and other individuals may insure compliance with the duty of disclosure," the MPEP states the following:

"Don’t submit long lists of prior art if it can be avoided. Eliminate clearly irrelevant and marginally pertinent cumulative prior art." *Id.* at ¶ 13.

"When in doubt submit prior art information. Even though the attorney, agent or applicant doesn't consider it necessarily material, someone else may see it differently." *Id.* at ¶ 10.

"[S]ection 1.56 may still require the submission of prior art which is not as close as that of record." *Id.* at ¶ 6.

The MPEP does not attempt to reconcile that marginally pertinent cumulative prior art should be eliminated and yet that doubt should be resolved in favor of disclosure. It is no surprise that in *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 220 USPQ 763 (Fed. Cir. 1984), the court called "fraud in the PTO . . . an area of law fraught with confusion and contradiction." *Id.* at 1362-64, 772-74.

**B. J.P. Stevens & Co., Inc. v. Lex Tex Ltd., Inc.**

In *J.P. Stevens & Co. v. Lex Tex, Ltd.*, 747 F.2d 1553, 223 USPQ 1089 (Fed. Cir. 1984), *cert. denied*, 474 U.S. 822 (1985), Chief Judge Markey, Judge Davis, Judge Miller, and Judge Smith reviewed a district court’s holding that the claims at suit were infringed, not invalid, and not unenforceable. The technology involved was improvements to the "torque stretch yarns" manufacturing process through the use of heat and tension. The jury awarded Lex Tex almost $8.8 million in damages, plus interest.

The patentees did not disclose the Weiss and DaGasso patents. Judge Markey, writing for the four judge panel, reversed the holding that the claims at suit were not unenforceable because of inequitable conduct. The panel said that four tests can determine if the materiality threshold has been reached:
(1) objective "but for"; (2) subjective "but for"; (3) "but it may have been"; and (4) PTO Rule 1.56(a), *i.e.*, whether there is a substantial likelihood that a reasonable examiner would have considered the omitted reference or false information important in deciding whether to allow the application to issue as a patent. The PTO standard is the appropriate starting point because it is the broadest and because it most closely aligns with how one ought to conduct business with the PTO.

*Id.* at 1559, 1092 (citations omitted). The panel then stated that, under the PTO standard, "a reference that would have been merely cumulative is not material." *Id.* at 1559-60, 1092, *citing Kimberly-Clark Corp. v. Johnson & Johnson* 745 F.2d 1437, 1455-1456, 223 USPQ 603, 615 (Fed. Cir. 1984).

C. *Rolls-Royce Ltd. v. GTE Valeron Corp.*

In *Rolls-Royce Ltd. v. GTE Valeron Corp.*, 800 F.2d 1101, 231 USPQ 185 (Fed. Cir. 1986), a three judge panel of Chief Judge Markey, Judge Friedman, and Judge Re (sitting by designation) further applied the cumulativeness concept. The case included a judgment of patent infringement, direction for an accounting, and grant of permanent injunction. The technology at hand was touch-trigger probes used for detailed measurements of locations of surfaces. The district court did not find inequitable conduct because one of two allegedly material references - Maschinen and Automatologie - was cited. In addition, the court remarked that the material references "both disclose substantially the same device and share the same shortcomings with respect to [the claims at issue]." *Rolls-Royce Ltd. v. GTE Valeron Corp.*, 625 F.Supp. 343, 354, 228 USPQ 489, 496 (E.D.Mich. 1985). The district court concluded that citation of one was “clearly more than sufficient to satisfy plaintiff’s duty of disclosure.” *Id.*

The Federal Circuit affirmed. Writing for the Court, and also without citing to precedent, Chief Judge Markey stated that "[n]othing in law or logic . . . requires an applicant to submit non-material, merely cumulative references for PTO review." *Rolls-Royce*, 800 F.2d at 1107, 231 USPQ at 189. Judge Markey did not define “merely cumulative references,” but provided by example that identity of structure is not the test:

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1 In reversing a district court holding of fraud in *Kimberly-Clark*, Judge Rich implicitly defined cumulative art without mentioning the word itself: "Clearly [the] disclosure of acknowledged ‘prior art’ is closer to what [the patent applicant] was attempting to claim . . . than [the uncited prior art]." *Kimberly-Clark*, 745 F.2d at 1455-56, 223 USPQ at 615 (emphasis in original).
GTE’s argument that Maschinen discloses some structural differences from Automatologie does not establish that those differences render it more material in relation to [the claim at issue], nor do those differences change Maschinen’s cumulative relationship with the considered art.

_Id._

**D. Gardco Mfg. v. Herst Lighting Co.**

In _Gardco Mfg. v. Herst Lighting Co.,_ 820 F.2d 1209, 2 USPQ2d 2015 (Fed. Cir. 1987), Chief Judge Markey, Judge Rich, and Judge Nies affirmed the district court’s finding of patent unenforceability for inequitable conduct. The invalidated patent related to a special light fixture that minimized excessive brightness from fluorescent lamps through the use of lenses. The district court first noted that the patent owner "did not satisfactorily explain" why it disclosed relevant prior art without lenses from its catalog while withholding its prior art with lenses. _Id._ at 1211, 1987. Using the "reasonable examiner" hypothesis, the district court then found the uncited prior art with lenses in the patent owner’s catalog to be "highly material." _Id._ at 1214, 1987.

In affirming, Chief Judge Markey called the patent owner’s cumulativeness argument "specious" because "the undisclosed fixtures are the only prior art devices having all four of the structural elements of the claimed invention." _Id._ In addition, the court rejected the patent owner’s argument that the disclosed prior art without lenses accounted for a majority of sales and was thus more material. _Id._
E. Speciality Composites v. Cabot Corp.

*Speciality Composites v. Cabot Corp.*, 845 F.2d 981, 6 USPQ2d 1601 (Fed.Cir. 1988), represents another early Federal Circuit application of the cumulativeness concept. The district court found no infringement, and ruled against invalidity or inequitable conduct. Four references were allegedly withheld during prosecution of the earplug technology patent. The district court disregarded two references as not material. The Federal Circuit reversed the decision of non-infringement and affirmed the holdings of nonobviousness and enforceability. Regarding the two references, Judge Davis spoke for a three judge panel of Judge Davis, Chief Judge Markey, and Judge Nichols:

Specialty characterizes those two patents as critical references which an examiner would find more pertinent than art that was cited. We agree with the district court that this argument is overly strained. Failure to cite nonmaterial, cumulative references is not inequitable conduct. The court’s finding that omission of those references did not reach the threshold of materiality for inequitable conduct was not clearly erroneous.

*Specialty Composites*, 845 F.2d at 992, 6 USPQ2d at 1609 (citations omitted). The court did not elaborate on what constitutes "nonmaterial, cumulative references." *Id.*

F. Scripps Clinic & Research Found. v. Genentech, Inc.

In *Scripps Clinic & Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991), Chief Judge Markey, Judge Newman, and Judge Beer (sitting by designation) affirmed the District Court of Northern California’s grant of partial summary judgment of no inequitable conduct. In addition, the Federal Circuit affirmed on every other issue except for best mode disclosure and attorney fees. The product-by-process claims at issue involved highly purified human Factor VIII:C, important to human blood clotting functions. As one of several defenses to infringement, the defendant claimed that the patent owner failed to disclose an abstract to a cited prior art reference.
Quoting *J.P. Stevens* and *American Hoist*, the district court called Rule 56 an "appropriate starting point" for a materiality analysis. *Scripps Clinic & Research Found. v. Genentech, Inc.*, 666 F.Supp. 1379, 3 USPQ2d 1481 (N.D.Cal. 1987). Then the district court discussed three different materiality tests based on case law:

> The cases have recognized that materiality may be established by application of several different factual tests: that a reasonable examiner would have allowed the claim but for the non-disclosure, that the particular examiner would have allowed the claim but for non-disclosure, or that the particular examiner’s decision may have been affected by the non-disclosure.

*Id.* at 1398, 1495, citing *J.P. Stevens*, 747 F.2d at 1559, 223 USPQ at 1093; *American Hoist*, 725 F.2d at 1362-63, 220 USPQ at 773. After listing the three tests, the district court gave "substantial weight" to a PTO finding of no inequitable conduct. *Id.* at 1399, 1495. The PTO held the abstract not material for two reasons. First, the abstract did not disclose information on an important process attribute. Second, the examiner was made aware of "relevant information" in the abstract through other references. *Id.* In agreeing with the PTO, the district court stated that "[w]hether a reference discloses material information . . . [is a matter] peculiarly within the expertise of the PTO." *Id.*

The Federal Circuit affirmed the finding of no inequitable conduct because the defendant failed to offer evidence or legal argument to the contrary. Judge Newman’s opinion did not comment on the means used by the PTO or district court to reach their conclusions.

**G. Halliburton Co. v. Schlumberger Technology Corp.**


In *Halliburton*, a district court held patents unenforceable for inequitable conduct and awarded $3.375 million in attorney fees and expenses. The patented technology utilized neutron decay in a borehole to locate oil-bearing rock strata. The Federal Circuit reversed the inequitable conduct ruling because uncited cumulative references were not more material than the cited references.
Citing *American Hoist*, the court used Rule 56 as "the appropriate starting point" for a materiality analysis. *Halliburton*, 925 F.2d at 1440, 17 USPQ2d at 1839. The Court stated that the then-Rule 56 “reasonable examiner” standard illustrated how an applicant should conduct business with the PTO. Instead of accepting that standard alone, however, the Court stated cumulativeness as an exception to the standard, introducing the exception with a word of exception: "However, a patentee has no obligation to disclose an otherwise material reference if the reference is cumulative or less material than those already before the examiner." *Id.*, *See also Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 992, 6 USPQ2d 1601, 1609 (Fed.Cir. 1988). The Court continued by elaborating on the cumulative exception: “Therefore, if the references found by [the examiner] more closely related to the [patent] applications than the uncited art, [the applicant] did not engage in inequitable conduct." *Halliburton*, 925 F.2d at 1440, 17 USPQ2d at 1839.

The court then sequentially analyzed “The Cited References,” “The Neufeld [undisclosed] Patent,” “The Texaco [undisclosed] Patents,” and “The Skip-A-Beat [undisclosed] Patents." *Id.* at 1440-42, 1839-41. The Court found the cited patents “highly material,” the Neufeld patent “less material,” the Texaco patents “less material” and also “not more material,” and the Skip-A-Beat patents “less material." *Id.*. The district court’s ruling of inequitable conduct was reversed.

In expressing that the Texaco patent was “not more material,” and that the other patents were “less material,” the Court echoed its ruling that there is no obligation to disclose if the prior art reference is “cumulative or less material than those already before the examiner.” *Id.* By analyzing these references together, it can be understood that a “cumulative” reference is one that is “not more material” than the cited references.

The Court stated it reversed primarily because "Halliburton had no obligation to disclose cumulative references." *Id.* at 1443, 1842. In contrast to the possible status of the Court’s treatment of cumulativeness in *Specialty Composites* as dicta, the *Halliburton* court based its ruling directly on the principle of “cumulativeness.” For this reason, *Halliburton* is often cited as the leading case on the cumulativeness principle.
However, the Court’s definition of a “cumulative” reference is arguably circular. A reference is not material if it is cumulative, *Halliburton*, 925 F.2d at 1440, 17 USPQ2d at 1839, and a reference is cumulative if it is “not more material” than the cited references. *Id.* at 1442, 1840. To avoid the circularity, perhaps introducing a concept of *prima facie* and ultimate materiality is useful. Prior art is *prima facie* material if it is otherwise material and not cumulative. It is ultimately material only if it is not *more* material than cited art, and it is *not* ultimately material if it is no more material than cited art.

Six years after *Rolls Royce*, and on the heels of *Halliburton*, the concept of cumulativeness entered title 37, section 1.56(b) of the Code of Federal Regulations. See, supra. Commissioner Harry Manbeck noted that "cumulative" in his conception meant that the prior art "shows or teaches the same subject matter as shown or taught by information already of record." Notice of Proposed Rulemaking, 56 Fed. Reg. 37321 (1991).

**H. Gambro Lundia AB v. Baxter Healthcare Corp.**

In *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 42 USPQ2d 1378 (Fed. Cir. 1997), the district court ruled that Baxter infringed Gambro’s patent, but declared the patent invalid and unenforceable for inequitable conduct. The patent technology involved a fluid flow measuring device for use in kidney dialysis.

In reversing the rulings of invalidity and unenforceability, the Federal Circuit did not make a clear decision on cumulativeness. It decided that the district court abused its discretion in finding an intent to deceive from exaggerations about cited foreign language prior art. The examiner relied on the applicant’s counsel’s fluency in the foreign language to interpret the prior art.

The court nonetheless introduced a new word into the concept of “cumulative” art. Citing *Halliburton*, Chief Judge Archer, Judge Rader, and Judge Lourie stated that a "reference which merely replicates references already before the examiner . . . is not material." *Id.* at 1580, 1384 (emphasis added). The Court noted that English language prior art which disclosed the same prior art procedure had been cited.
I. University of California v. Eli Lilly and Co.

In *University of California v. Eli Lilly and Co.*, 119 F.3d 1559, 43 USPQ2d 1398 (Fed. Cir. 1997), Judge Newman, Judge Lourie, and Judge Bryson reversed the district court’s ruling that the University of California’s patents were unenforceable. The two patents concerned recombinant DNA technology used to produce human insulin. Judge Lourie, writing for the court, based the unenforceability reversal on the cumulativeness principle. In the end, the university still lost on most of the issues, however. The Federal Circuit affirmed the district court’s findings of jurisdiction, invalidity of one patent, and noninfringement on the other patent.

In attempting to counter the cumulativeness argument, Eli Lilly advocated that the University of California’s "assertions of subjective good faith amount[ed] to no more than a mere denial of bad faith." The court, however, said the uncited prior art was "essentially the same" as the cited prior art and was therefore cumulative. *Id.* at 1574, 1411.

In dicta, the Federal Circuit also elaborated on the meaning of cumulativeness as stated in *Scripps*. In particular, the court defined a cumulative reference as one that "teaches no more than what a reasonable examiner would consider to be taught by the prior art already before the PTO." *Id.* at 1575, 1411.
J. Baxter Int’l, Inc. v. McGaw, Inc.

In Baxter Int’l Inc. v. McGaw, Inc., 47 USPQ2d 1225, 1998 U.S. App. LEXIS 14902, the Federal Circuit adopted an element-by-element approach to cumulative prior art and upheld the district court’s finding that one omitted prior art reference was material and not cumulative. Id. at 1229, *16. The technology involved an improved intravenous injection needle that reduced the likelihood of accidental pricks. The Federal Circuit panel consisted of Judge Plager, Judge Rader, and Judge Gajarsa, who wrote the opinion. First, the court identified five elements in the Baxter claim. Id. at 1229, *15. Then the court compared, element-by-element, the cited prior art reference and the uncited prior art reference with the claimed invention. The court determined that the uncited devices contained four of the five elements. The cited device only contained three of the five elements, leading to a materiality conclusion. The analysis in Baxter mirrored cases like Gardco, where undisclosed prior art devices were not cumulative because they contained "all four of the structural elements of the claimed invention." Gardco, 820 F.2d at 1214, 2 USPQ2d at 2020.

IV. Is the Accepted “Cumulativeness” Exception Yielding Just Results, or Should it be Reconsidered?

Cardozo states that if the accepted rule is not yielding results which are just, it is to be reconsidered. Whether the excuse of "cumulativeness" should continue as a rule is in part a matter of the larger issue of inequitable conduct. Some commentators write that there is an epidemic of inequitable conduct charges in litigation: "What chance is there of stemming what the court called the ‘plague’ of inequitable conduct charges in litigation? At the trial level, very little." Robert J. Goldman, Evolution of the Inequitable Conduct Defense in Patent Litigation, 7 Harv. J.L. & Tech. 37 (1993). Whether the number of such charges is properly denigrated as a "plague" depends on one’s view of patent practitioners. Perhaps there is a plague of inequitable conduct occurring in the PTO. If so, it is properly being caught in litigation.

Having prior art considered cumulative saves a patent applicant from a holding of inequitable conduct. It is a safe harbor from a finding of materiality regardless of intent. Critics of the present materiality standard point out that whenever there is an accusation that an attorney did not disclose material information, cumulativeness is exploited as a safe harbor when at all possible.
As a result, some critics argue that the safe harbor of cumulativeness should be limited to attorneys who include a notation in their file history that the prior art they are not citing is cumulative. In this way, they argue, only the "deserving" attorneys would be able to utilize the safe harbor. In support of them, section 2004 of the 1996 MPEP suggests that patent attorneys include file notations regarding cumulativeness:

... [I]f information was specifically considered and discarded as not material, this fact might be recorded in an attorney’s file or applicant’s file, including the reason for discarding it. If judgment might have been bad or something might have been overlooked inadvertently, a note made at the time of evaluation might be an invaluable aid in explaining that the mistake was honest and excusable. Though such records are not required, they could be helpful in recalling and explaining actions in the event of a question of "fraud" or "inequitable conduct" raised at a later time.

_Id_. at ¶ 18. In response, supporters of the present system point out that file history notations could be merely self-serving. Also, if the rule were changed, there would then be a tendency for practitioners to simply note every uncited reference as cumulative.

Most of the above-referenced cases reach apparently benign results. However, in_Gambro_, a foreign language patent "clearly" disclosed a means relevant to patentability. _Gambro_, 110 F.3d at 1581, 42 USPQ2d at 1385. The patent owner translated the foreign language patent without mentioning that means. In addition, the court termed other remarks by the patent owner "at least overstatements." _Id_. Analysis of the statements was stunted, however, because the art was found to be cumulative.
Therefore, *Gambro* suggests that it is allowable to overstate, exaggerate or perhaps even misrepresent the truth as to prior art, even if it is a focus of examiner attention, if the prior art is cumulative of other references. For example, assume the prior art includes a patent, engineering drawing, and brochure of the same device. Assume the brochure contains only pictures and no text, such that it most poorly discloses the prior art device. Under *Gambro*, the patent attorney can apparently cite the brochure instead of either the patent or the engineering drawing while avoiding a finding of inequitable conduct. Alternatively, the patent attorney can disclose the brochure and either of the other references direct attention to the brochure, misstate the deficiencies of the prior art device, and still escape a conclusion of inequitable conduct because the brochure is cumulative.

The hypothesis of "cumulativeness" is backed by good intentions and often generates apparently just results. However, *Gambro* is illustrative of how sharp practitioners may potentially exploit the present hypothesis to escape inequitable conduct. Because questions are arising as to whether the "cumulativeness" hypothesis under materiality should be able to overcome intent, it may be time to propose a new hypothesis.