## WHAT DOES EVIDENCE PRESENTED TO REBUT A PRIMA FACIE CASE OF OBVIOUSNESS MUST BE COMMENSURATE IN SCOPE WITH THE CLAIMS TO WHICH IT PERTAINS MEAN?

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Although its origin is uncertain, the concept of prima facie obviousness is well-entrenched in today's patent jurisprudence.<sup>2</sup> Once established, the examining procedure for applying the concept was analyzed as a two-step process, as set forth in *In re Surrey*:

If the structural similarity \* \* \* establishes a prima facie case of obviousness, then appellants can prevail only if they overcome such prima facie case. Hence, two separate questions are involved: (1) whether a prima facie case of obviousness has been established, and, if so, (2) whether the affidavits presented are sufficient to overcome the prima facie case of obviousness.<sup>3</sup>

While the language used for quantifying what was sufficient in answer to question (2) may have lacked uniformity in earlier cases, the language ultimately settled on was "evidence

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<sup>&</sup>lt;sup>2</sup>The concept's ancestry includes mechanisms which in earlier cases were called "presumptions of unpatentability," which term was clarified in later cases as referring to an "inference of fact," in which the burden of persuasion shifts to the applicant, who in turn must produce evidentiary facts, after which, all relevant facts are then considered in determining obviousness. Gradually the concept of the prima facie case of obviousness replaced the "presumption of unpatentability," adding procedural rigor. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 787-88 (CCPA 1984).

<sup>&</sup>lt;sup>3</sup>319 F.2d 233, 235, 138 USPQ 67, 69 (CCPA 1963), *cited in Piasecki*, 745 F.2d at 1472, 223 USPQ at 788. Of course, it is understood that prima facie obviousness may be established by other than "structural" similarity, depending on the facts of the case, and that evidence in rebuttal of a prima facie case is not restricted to affidavit evidence.

presented to rebut a prima facie case of obviousness must be commensurate in scope with the claims to which it pertains" or similar language. This "doctrine" has been couched in such terms at least since *In re Tiffin*. It would seem to be well-settled and non-controversial. Experience has shown, however, that it has been interpreted by some to mean that so long as **any embodiment within** claimed subject matter is prima facie obvious, the burden shifts to the applicant to present evidence of non-obviousness that is commensurate in scope with the **entire** claimed subject matter. Thus, a burden is applied on the patent applicant that is greater than required by 35 U.S.C. 103(a).

As will be discussed later in this article, I believe a contributing cause of this result is the lack of precision in the statement of the doctrine itself.

It is well-settled that claimed subject matter is unpatentable if *any* embodiment within its scope is legally obvious, i.e., within the terms of 35 U.S.C. 103(a).<sup>7</sup> But the problem arises when evidence of non-obviousness is presented. How much is sufficient?

An example similar to and somewhat simplified from one from the author's own experience will illustrate the problem.

The invention was an improvement of a particular catalyst for a particular process. The catalyst in the prior art was a metal (A) selected from a particular Markush group containing n

<sup>&</sup>lt;sup>4</sup>In re Dill, 604 F.2d 1356, 1361, 202 USPQ 805, 808 (CCPA 1979).

<sup>&</sup>lt;sup>5</sup>The quoted term will be used in the text as shorthand for the doctrine stated in the title.

<sup>&</sup>lt;sup>6</sup>448 F.2d 791, 171 USPQ 294 (CCPA 1971). Its most recent application, as far as the author can ascertain, is in *In re Peterson*, \_\_ F.3d \_\_, 65 USPQ2d 1379 (Fed. Cir. 2003).

<sup>&</sup>lt;sup>7</sup>See, e.g., In re Lintner, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972).

members  $(A_{1...n})$ . The improvement catalyst was a mixture of the above metal A and another metal (B) selected from a Markush group of metals containing m members  $(B_{1...m})$ .

The prior art also disclosed metal  $B_1$ , among other metals C and D, as a catalyst metal for a different but arguably similar process, with a broad disclosure that the metal could be used in combination with other metals known for use in the process. The prior art included no disclosure or suggestion of equivalence of  $B_1$  with any other metal of the B Markush group.

The prosecution record contained comparative data showing that A-B combinations using each member of the A Markush group  $(A_1, A_2, \ldots A_n)$  with one member  $(B_1)$  of the B Markush group, were all unexpectedly better than both the corresponding A catalyst alone and  $B_1$  alone.

The main claim of the invention read as follows:

A catalyst combination comprising a mixture of a metal A selected from the group consisting of  $A_{1...n}$  and a metal B selected from the group consisting of  $B_{1...m}$ .

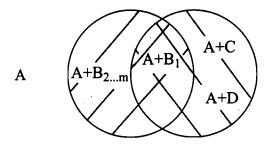
The examiner concluded that the prior art rendered the claim prima facie obvious. He further conceded that the comparative data of record showed unexpected results but found that they were not commensurate in scope with the claim.

We argued that the claimed catalyst combination was not prima facie obvious over the applied prior art (because of differences in the respective prior art processes), but if any embodiment was prima facie obvious, it was, at best, the combination of A-B<sub>1</sub>. If so, however, we argued that the comparative data was sufficient to rebut the prima facie case, i.e., the showing of unexpected results was commensurate in scope with that part (in terms of scope) of the

claimed subject matter that was prima facie obvious.8

Instead, the examiner held that the showing of unexpected results was not commensurate in scope with the claim because there was no data showing A-B mixtures using other members of the B Markush group, i.e., B<sub>2</sub>, B<sub>3</sub>, etc.

The concept of *prima facie* obviousness, using the facts of the above example, is demonstrated by the diagram below (Diagram A):

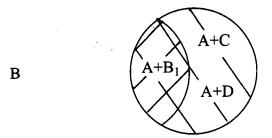


In diagram A, and the diagrams below, represents the claimed subject matter, represents subject matter that is prima facie obvious, and represents claimed subject matter that is prima facie obvious.

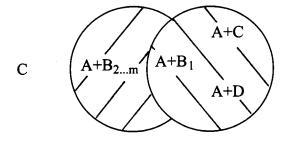
The patent applicant could have amended the claims to exclude all members from B other

<sup>&</sup>lt;sup>8</sup>We also argued that the examiner used the wrong approach, since he treated the evidence of non-obviousness only for its "knockdown ability," in violation of applicable precedent rather than beginning the process of assessing patentability anew. More about that *infra* in note 17 and the accompanying text.

than B<sub>1</sub> with the presentation of the comparative data. There could then be no doubt that the showing was commensurate in scope with the full scope of the claim, and the prima facie case overcome, and thus this claim would have been allowable. These facts are demonstrated by the diagram below (Diagram B):



Suppose on the other hand that the combination of A-B<sub>1</sub> was of insignificant commercial importance, such that the claim was amended by deleting B<sub>1</sub> from the B Markush group, and the above-discussed showing was not presented. Since there is no disclosure in the prior art suggesting any of the other members of the B Markush group as interchangeable with B<sub>1</sub>, there is no prima facie case of obviousness. These facts are demonstrated by the diagram below (Diagram C):



Since the claim is indisputably patentable under each of the situations presented in

Diagrams B and C, respectively, how can it then not also be patentable in the situation presented in Diagram A, where the claimed subject matter is precisely the sum of the claimed subject matters in Diagrams B and C?

The above conclusion would seem to be elementary. Yet at least in the author's experience, it has not always been so in practice before the USPTO (Patent Office), especially in the face of more complex fact patterns than that exemplified here.

The problem is that the statement of the doctrine is incomplete in that it omits what must necessarily be an important part of it, viz., that evidence of patentability must be commensurate in scope with **only that part of the claimed subject matter that is prima facie obvious**. Any requirement for a broader showing of patentability is a violation of 35 U.S.C. 103(a). The above example illustrates the elementary notion that where prima facie obviousness is present, it does not necessarily reach the entire scope of a claim.

To see how and whether the Patent Office's reviewing tribunals<sup>9</sup> have addressed this issue, a computerized search of the BNA USPQ data base was made for all reported (including non-precedential) cases in which the terms "commensurate" and "scope" appear and an issue of whether evidence of non-obviousness is commensurate in scope sufficient to rebut a prima facie case was decided. The list of cases appears in an Appendix at the end of this article. These cases were reviewed.

<sup>&</sup>lt;sup>9</sup>"The Patent Office's reviewing tribunals" is meant to be inclusive of those tribunals whose precedent is to govern examination in the Patent Office. For purposes of this article, the above-quoted term consists of the U.S. Court of Appeals for the Federal Circuit (Federal Circuit) and its predecessors U.S. Court of Customs and Patent Appeals and U.S. Court of Claims; the Board of Patent Appeals and Interferences and its predecessor Board of Appeals; and the U.S. District Court for the District of Columbia in actions brought under 35 U.S.C. §145.

None of the cases includes an explicit analysis of the type discussed above or a positive statement that evidence of patentability must be commensurate in scope with *that part of the claimed subject matter that is prima facie obvious* or similar language.

Interestingly, in one of the earlier cases, viz., *In re Hyson*, <sup>10</sup> wherein it was held that the evidence of non-obviousness was not commensurate in scope with the claims, the court stated: "The Patent Office having made out a case of prima facie obviousness commensurate in scope with the claims, it became incumbent upon the appellant to rebut that case, if he could, with evidence of similar scope," citing *Tiffin*. The unstated implication is that if the prima facie case was of somewhat less than the full scope of the claims, then evidence of non-obviousness of the same, narrower scope would have been sufficient. Of course, as stated above, the implication has not been verbalized in a tribunal's opinion.

One of the more comprehensive analyses of the doctrine to the particular facts can be found in *In re Clemens*. <sup>12</sup> In *Clemens*, the claimed process was drawn to removing corrosion products from condensate waters in a steam regenerating system, otherwise known as condensate polishing, using particular ion exchange resins known as VBC-based resins. In claim 1, the process involved operating at *elevated* temperatures. Claim 8 depended on claim 1, limiting *elevated* temperatures to *a temperature in excess of 100°C*. The claim 1 invention differed from the prior art in only one respect--while the claimed invention used VBC-based resins, the prior art used particular ion exchange resins known as CME-based resins. The court found that these

<sup>&</sup>lt;sup>10</sup>453 F.2d 764, 172 USPQ 399 (CCPA 1972).

<sup>&</sup>lt;sup>11</sup>*Id.* at 767, 172 USPQ at 402.

<sup>12622</sup> F.2d 1029, 206 USPQ 289 (CCPA 1980).

two kinds of resins have very similar structures, and the appellant even conceded that similar physical characteristics and utilities would have been expected, i.e., it would have been prima facie obvious to substitute one for the other. Comparative data in the record showed that VBC-based resins are significantly more thermally stable than corresponding CME-based resins at 110°C and 130°C.

The court stated the doctrine, and found that the appellant had admitted that the term elevated temperatures was inclusive of those temperatures at which prior art condensate polishing was carried out. Since the prior art's CME-based resin condensate polishing was conducted at temperatures below 60°C, the court construed claim 1 as inclusive of condensate polishing performed at such temperatures. Because the only evidence of non-obviousness was the comparative data at 110°C and 130°C, the court found that the prima facie case of obviousness for claim 1 had not been rebutted. For claim 8, interestingly enough, even though the appellant had conceded a prima facie case of obviousness, the court found no such case, because CME-based resins were known in the prior art to thermally degrade at temperatures in excess of 60°C. Since the VBC-based resins were expected to behave similarly, it was not prima facie obvious to utilize them at such high temperatures.

In re Costello<sup>13</sup> is another case where a court distinguished among the various types of claims on appeal. In Costello, the invention concerned plating of plastic with a particular plating bath. Prior art baths had been shown to be incapable of plating plastic. Evidence of unexpected results had been shown with plating baths for plastic having particular ratios of components.

There were claims drawn to a method of coating articles with the plating bath, claims drawn to

<sup>&</sup>lt;sup>13</sup>480 F.2d 894, 178 USPQ 290 (CCPA 1973).

the bath composition without reciting the particular ratios, and claims drawn to the bath composition that did recite the particular ratios. The court found that the showing of unexpected results was commensurate in scope with only those claims reciting the particular ratios, and reversed an obviousness rejection of them. The obviousness rejection of the remaining claims was affirmed.

Discussing all the cases reviewed would serve no purpose here. But some useful conclusions can be drawn from them.

First, the number of cases listed in the Appendix represents only a very small fraction of the total number of cases where there was an issue of whether evidence of non-obviousness was sufficient to rebut a prima facie case. <sup>14</sup> Of this total number not listed in the Appendix, some cases arguably implicitly applied the doctrine, <sup>15</sup> but most cases in which this issue was decided did not apply the doctrine at all.

Second, where the reviewing tribunals did state and apply the doctrine, they were for the most part, and perhaps not surprisingly, in cases where the evidence was found not to be commensurate in scope. A few exceptions do exist, where the evidence was found to be

<sup>&</sup>lt;sup>14</sup>The term "prima facie case of obviousness" appears in over 250 reported cases from the Patent Office's reviewing tribunals (see note 9, *supra*) according to the BNA USPQ data base. Of course, not all of these cases involved the presence of evidence of non-obviousness. On the other hand, there are likely additional cases where whether there is a prima facie case of obviousness was in issue, but the issue was not stated according to the above-quoted term.

<sup>&</sup>lt;sup>15</sup>See, e.g., Applied Materials, Inc. v. Advanced Semiconductor Materials America, Inc., 98 F.3d 1563, 40 USPQ2d 1481 (Fed. Cir. 1996); Burlington Industries, Inc. v. Quigg, 822 F.2d 1581, 3 USPQ2d 1436 (Fed. Cir. 1987); In re Carleton, 599 F.2d 1021, 202 USPQ 165 (CCPA 1979); In re Kollman, 595 F.2d 48, 201 USPQ 193 (Fed. Cir. 1979); In re Yan, 463 F.2d 1348, 175 USPQ 96 (CCPA 1972); and In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

sufficient to support, in effect, the claim as a whole.16

Third, the other side of the coin is that the reviewing tribunals were less likely to have stated the doctrine when they were finding that the evidence was sufficient. In other words, those cases that could be analogized to the above-discussed "catalyst" example were decided without any discussion of the doctrine. Some of these cases criticized the tribunal whose decision was being reviewed for using the wrong approach. As stated in *In re Carleton:*<sup>17</sup>

If the applicant presents rebuttal evidence, the decision-maker must consider all of the evidence of record (both that supporting and that rebutting the prima facie case) in determining whether the subject matter as a whole would have been obvious. [footnote omitted] *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *In re Lewis*, 443 F.2d 389, 170 USPQ 84 (CCPA 1971). The correct procedure for considering rebuttal evidence was set forth by this court in *In re Rinehart*, *supra* at 1052, 189 USPQ at 147:

Though the burden of going forward to rebut the prima facie case remains with the applicant, the question of whether that burden has been successfully carried requires that the entire path to decision be retraced. An earlier decision should not, as it was here, be considered as set in concrete, and applicant's rebuttal evidence then be evaluated only on its knockdown ability. Analytical fixation on an earlier decision can tend to provide that decision with an undeservedly broadened umbrella effect. Prima facie obviousness is a legal conclusion, not a fact. Facts established by rebuttal evidence must be evaluated along with the facts on which the earlier conclusion was reached, not against the conclusion itself. Though the tribunal must begin anew, a final finding of obviousness may of course be reached, but such finding will rest upon evaluation of all facts in evidence, uninfluenced by any earlier conclusion reached by an earlier board upon a different record.

<sup>&</sup>lt;sup>16</sup>See, e.g., In re Slocombe, 510 F.2d 1398, 1402, 184 USPQ 740, 743 (CCPA 1975) ("We find that the three affidavits submitted under Rule 132... are commensurate in scope with the claims."); Ex parte Winters, 11 USPQ2d 1387 (Bd. Pat. App. & Inter. 1989) (Showing of unexpected results for a single compound found to be sufficient to support claim that embraced it and only three other closely, related isomers.)

<sup>&</sup>lt;sup>17</sup>599 F.2d 1021, 1024, 202 USPO 165, 168-69 (CCPA 1979).

One can only speculate why none of the cases state the doctrine as advanced here. In cases where evidence of non-obviousness was found to be insufficient to rebut a prima facie case, it may be because the subject matter found to be prima facie obvious was either (1) as broad as, if not broader than, the claim against which it was applied, or (2) if not as broad as the claim, then the evidence of non-obviousness was even narrower. In cases where such evidence was found to be sufficient to rebut a prima facie case, it may be that (1) the evidence was at least as broad as the claim in scope, or (2) application of the doctrine was subsumed in deciding the broader issue of whether the evidence of non-obviousness was sufficient to rebut the prima facie case.

Assuming the tribunal was otherwise correct in its finding of prima facie obviousness, no case could be found that both stated the doctrine and was decided incorrectly to the extent the relevant facts could be discerned from the written opinion. In other words, there was no case containing facts analogous to the "catalyst" example where the reviewing tribunal affirmed a conclusion of legal obviousness.

Since there is no case precedent directly on the point made here, there are a number of options to pursue for those prosecuting patent applications until a precedential case is decided that is on point, preferably by the Federal Circuit. One is to repeat the arguments made here during prosecution. Thus, where the subject matter that is prima facie obvious is not as broad as the claim in scope, the examiner should be urged to state on the record the metes and bounds of the prima facie obvious subject matter. If that is not successful, then another is to divide the claim(s) analogous to the "catalyst" example discussed above by carving out that subject matter that is not prima facie obvious and submitting it in separate claim(s), so long as this does not run

afoul of other statutory impediments, such as the description requirement of the first paragraph of 35 U.S.C. §112.<sup>18</sup> It may be assumed that most fact situations will not lend themselves to the above "carving out" approach, and do not present a "black or white" fact situation like the "catalyst" example, but instead require a more imaginative analysis, as now discussed.

Let's change the facts somewhat using the "catalyst" example, such that from a purely "mechanical" standpoint, the scope of the showing of non-obviousness is less than the scope of the prima facie obvious subject matter. Assume now that the prior art that disclosed metals B<sub>1</sub>, C and D, also disclosed additional metals that were inclusive of all the metals of the B Markush group. Assume also that the prosecution record additionally contained comparative data showing that A-B combinations using each member of the A Markush group with other, but not all, members of the B Markush group, were all unexpectedly better than both the corresponding A catalyst alone and the corresponding B catalyst alone. In such a situation, an argument may be available that the evidence demonstrates a trend from which one of ordinary skill in the art could conclude that the evidence is commensurate in scope with claimed subject matter that is prima facie obvious.

As stated in In re Kollman: 19

We feel that the unobviousness of a broader claimed range can, in certain instances, be proven by a narrower range of data. Often, one having ordinary skill in the art may be able to ascertain a trend in the exemplified data which would allow him to reasonably extend the probative value thereof. The proof, thus considered, might then be sufficient to

<sup>&</sup>lt;sup>18</sup>See generally Harris A. Pitlick, Looking Beyond Blazemarks on Trees--It's Time to Revisit the Description Requirement in the Wake of Warner-Jenkinson, 79 J. Pat. & Trademark Off. Soc'y 625 (1997).

<sup>&</sup>lt;sup>19</sup>595 F.2d 48, 201 USPO 193 (Fed. Cir. 1979).

rebut a PTO holding of prima facie obviousness.<sup>20</sup>

Kollman supports the notion that the doctrine should not be applied mechanically.

Another good example of a non-mechanical consideration of evidence of non-obviousness is *In re Cescon*.<sup>21</sup> In *Cescon*, the invention was a composition containing particular imidazole compounds (imidazolyls) having ortho-substitution and a solvent or substrate, the composition having certain phototropic properties, which rendered the composition useful as an automatic sun shade. The phenomenon of phototropism itself was not unexpected. The inventor's contribution lay in the discovery that the presence of ortho substitution imparted an improved responsiveness to changes in light intensity. Evidence of improvement in the record was limited to a comparison with imidazoles having no substitution and imidazoles having other than, but analogous to, ortho substitution, in a benzene solution only. The court stated:

Our disagreement with the action of the Patent Office at this level arises from overly stringent standards set up for evaluating appellant's objective evidence. It is true that the claims are broadly drawn to the presence of the imidazolyls in the environment of an inert solvent or substrate. The examples providing comparisons with analogously substituted isomers or unsubstituted imidazoles, on the other hand, are limited to the use of a benzene solution. Not all compounds encompassed by the claims are tested. But ample data has been provided to establish the correlation between ortho substitution on the 2-phenyl ring and greatly increased color fading rates. **Moreover, no factual basis appears in the record for expecting the compounds to behave differently in other environments.** Accordingly, we reverse the 103 rejection.<sup>22</sup>

Thus, relying on Cescon, it can be argued that the burden should be shifted back to the

<sup>&</sup>lt;sup>20</sup>595 F.2d at 56, 201 USPQ at 199. See also Ex parte Winters, 11 USPQ2d 1387, 1388 (Bd. Pat. App. & Inter. 1989) (In order to prove non-obviousness for a genus of compounds, only representative species need be shown.)

<sup>&</sup>lt;sup>21</sup>474 F.2d 1331, 177 USPQ 264 (CCPA 1973).

<sup>&</sup>lt;sup>22</sup>Id. at 1334, 177 USPQ at 267 (emphasis added).

Patent Office to show why evidence "missing" from a mechanical application of the doctrine would not be expected to be of similar probative value to the evidence already of record. Using the facts of the "catalyst" example, one could argue a lack of a factual basis in the record for expecting that other A-B combinations within the terms of the claims that were not tested would not produce similar results to those that were tested.

The notion that the doctrine not be mechanically applied can be considered to be a "corollary" of precedent of how an issue of obviousness must be evaluated once *some* evidence of non-obviousness is submitted in rebuttal of a prima facie case of obviousness. Thus, reliance on the *Carleton*<sup>23</sup> line of cases in the face of a holding that non-obviousness evidence of record is not commensurate in scope with the claims may help produce a broader focus and perhaps a better result.

Finally, as discussed above, there are many cases where the reviewing tribunal held that evidence of non-obviousness was sufficient to rebut a prima facie case of obviousness, even without explicitly deciding any issue of whether the evidence was commensurate in scope with the claims. Such cases are difficult to pigeon-hole in the sense that essentially only the facts and conclusions therefrom are discussed in the opinion, with little or no citation of case precedent. In an especially important situation, it might pay to spend the time researching these cases in the hope of finding one having both analogous facts and the desired decision. Such cases may include fact situations where the evidence was *not* commensurate in scope when the doctrine is applied mechanically. Such cases should be cited in similar fact situations.

<sup>&</sup>lt;sup>23</sup>See supra note 17.

## **APPENDIX**

In re Tiffin, 171 USPQ 294 (CCPA 1971)

In re Hyson, 172 USPQ 399 (CCPA 1972)

In re Lindner, 173 USPQ 356 (CCPA 1972)

In re Collins, 174 USPQ 333 (CCPA 1972)

In re Snow, 176 USPQ 328 (CCPA 1973)

In re Costello, 178 USPQ 290 (CCPA 1973)

In re Slocombe, 184 USPQ 740 (CCPA 1975)

In re Hoke, 195 USPQ 148 (CCPA 1977)

In re Greenfield, 197 USPQ 227 (CCPA 1978)

In re Dill, 202 USPQ 805 (CCPA 1979)

In re Payne, 203 USPQ 245 (CCPA 1979)

In re Boesch, 205 USPQ 215 (CCPA 1980)

In re Kerkhoven, 205 USPQ 1069 (CCPA 1980)

In re Coleman, 205 USPQ 1172 (CCPA 1980)

In re Clemens, 206 USPQ 289 (CCPA 1980)

In re Marosi, 218 USPQ 289 (Fed. Cir. 1983)

In re Grasselli, 218 USPQ 769 (Fed. Cir. 1983)

Merck & Co., Inc. v. Biocraft Laboratories Inc., 10 USPQ2d 1843 (Fed. Cir. 1989)

In re Kulling, 14 USPQ2d 1056 (Fed. Cir. 1990)

In re Jaynes, 17 USPQ2d 1974 (Fed. Cir. 1990) (non-precedential)

In re Ball Corp., 18 USPQ2d 1491 (Fed. Cir. 1991) (non-precedential)

Joy Technologies Inc. v. Manbeck, 22 USPQ2d 1153 (Fed. Cir. 1992)

Richardson-Vicks Inc. v. The Upjohn Co., 44 USPQ2d 1181 (Fed. Cir. 1997)

In re Hiniker Co., 47 USPQ2d 1523 (Fed. Cir. 1998)

In re Peterson, 65 USPQ2d 1379 (Fed. Cir. 2003)

Bowles Fluidics Corporation v. Mossinghoff, 228 USPQ 512 (D.D.C. 1985)

Perrin et al. v. Kalk et al., 1 USPQ2d 1881 (Bd. Pat. App. & Inter. 1986)

Ex parte McCullough, 7 USPQ2d 1889 (Bd. Pat. App. & Inter. 1987)

Ex parte McGaughey, 6 USPQ2d 1334 (Bd. Pat. App. & Inter. 1988)

Ex parte Winters, 11 USPQ2d 1387 (Bd. Pat. App. & Inter. 1989)

Ex parte George, 21 USPQ2d 1058 (Bd. Pat. App. & Inter. 1991)

Ex parte Anderson, 21 USPQ2d 1241 (Bd. Pat. App. & Inter. 1991)

Ex parte The NutraSweet Co., 19 USPQ2d 1586 (Bd. Pat. App. & Inter. 1991)

Ex parte Gelles, 22 USPQ2d 1318 (Bd. Pat. App. & Inter. 1992)

Ex parte Westphal, 26 USPQ2d 1858 (Bd. Pat. App. & Inter. 1992)

Ex parte Casagrande, 36 USPQ2d 1860 (Bd. Pat. App. & Inter. 1995) (non-precedential)