
Objective Evidence of Nonobviousness: The Elusive Nexus Requirement (Part I)

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I. INTRODUCTION

It is now a matter of established patent law that objective evidence of nonobviousness, such as evidence of a claimed invention's commercial success, satisfaction of a long felt but unsolved need, or acceptance by the relevant industrial sector, must be considered by the courts and the Patent Office enroute to a conclusion vis-a-vis the obviousness/nonobviousness of the claimed invention. The requirement dates back to the Supreme Court's 1877 landmark opinion in *Smith v. Goodyear Dental Vulcanite Co.*,¹ and was reconfirmed nearly a century later in the Supreme Court's subsequent landmark opinion in *Graham v. John Deere Co.*² As if to quash any scintilla of doubt, the Court of Appeals for the Federal Circuit ("Federal Circuit") has further proclaimed the requirement, going out of its way to extol the virtues of objective evidence of nonobviousness,³ and to criticize, and indeed reverse trial courts for failing to properly consider such evidence.⁴

There should also be no remaining doubt of the requirement that a connection must be established between the objective evidence offered and the merits of the claimed invention. This latter requirement dates back almost as far as *Smith* itself, first clearly having been expressed by the Supreme Court in *McClain v. Ortmyer*⁵ as a logical and natural condition to the presentation of commercial success evidence in support of patent validity. The Court there recognized that commercial success evidence is reflective of the validity of a patent only if it is shown that such evidence is in fact related to the merits of the claimed invention rather than to extensive advertising, aggressive marketing, or other such unrelated activities. This connection requirement was subsequently carried forward into the opinions of the Court of Customs and Patent Appeals, and was dubbed a "nexus" requirement.⁶

¹ 93 U.S. 486 (1877).

² 383 U.S. 1 (1966).

³ Referred to in *Graham* as "secondary considerations." *Id.* at 17.

⁴ See, e.g., *Simmons Fastener Corp. v. Ill. Tool Works, Inc.*, 739 F.2d 1573, 1575-76, 222 U.S.P.Q. 744 (Fed. Cir. 1984), *cert. denied*, 105 S. Ct. 2138 (1985); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538-39, 218 U.S.P.Q. 871 (Fed. Cir. 1983).

⁵ 141 U.S. 419, 428-29 (1891).

⁶ See, e.g., *Solder Removal Co. v. United States Int'l Trade Comm'n*, 582 F.2d 628, 637, 199 U.S.P.Q. 129 (C.C.P.A. 1978); *In re Caveney*, 386 F.2d 917, 922-23, 155 U.S.P.Q. 681 (C.C.P.A. 1967); *In re Goodman*, 339 F.2d 228, 232-33, 144 U.S.P.Q. 30 (C.C.P.A. 1964).

In numerous opinions, the Federal Circuit has reconfirmed that a nexus must be established between the merits of the claimed invention and the objective evidence offered if that evidence is to be considered enroute to a determination of the obviousness issue.⁷ As recently as January of 1986, Chief Judge Markey devoted an entire section of an opinion to the subject, labeling as "(c) Nexus" that portion of his opinion responsive to appellant's contention that a nexus was lacking.⁸ It is clear from the Federal Circuit's opinions that the nexus requirement applies to all types of objective evidence.

While there appears to be little remaining confusion over the types of evidence that constitute objective evidence of nonobviousness, and the requirement that such evidence must be considered on the obviousness issue, a great deal of confusion prevails vis-a-vis the nexus requirement since application of the requirement is much easier in theory than in practice. Questions arise as to how best to prove the requisite connection to the features of the invention; how substantial the connection must be; whether proof of the nexus element is a prerequisite to the relevance of the objective evidence, or whether the extent of the showing of a nexus merely affects the weight to be given such evidence; whether it is the patentee who must prove the existence of the requisite nexus, or whether the patent challenger must demonstrate the absence thereof in conjunction with his ultimate burden of proof; and whether any special precautions are necessary when presenting objective evidence to a jury.

In light of the present trend in the Federal Circuit, a proper understanding of the above issues from this point forward literally may mean the difference between a determination of patent validity and invalidity. In an attempt to promote such an understanding, this article will commence with a discussion of various procedural and evidentiary aspects of the nexus requirement, and will then proceed with a survey of the types of evidence of nexus which have or have not successfully carried the day in the courts.⁹ It is hoped that by the

⁷ See, e.g., *Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 315-17, 227 U.S.P.Q. 766 (Fed. Cir. 1985); *Simmons Fastener Corp. v. Ill. Tool Works, Inc.*, 739 F.2d 1573, 1575, 222 U.S.P.Q. 744 (Fed. Cir. 1984), cert. denied, 105 S. Ct. 2138 (1985); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1539, 218 U.S.P.Q. 871 (Fed. Cir. 1983).

⁸ *Windsurfing Int'l, Inc. v. AMF Inc.*, 782 F.2d 995, 999-1000, 228 U.S.P.Q. 562 (Fed. Cir. 1986).

⁹ In light of the present reign of the Federal Circuit, which reign is now substantially underway, such portion of this article will for obvious reasons concentrate most heavily on the post-*Graham* opinions of the Federal Circuit and its predecessor courts, the Court of Customs and Patent Appeals and the Court of Claims, whose opinions the Federal Circuit has adopted as

time the reader reaches the conclusion hereof, he/she will have at least a substantial toehold on structuring a successful case for the pertinence (or lack thereof) of particular objective evidence to the question of the validity of a patent (or patentability of a patent application) in issue.

II. PROCEDURAL AND EVIDENTIARY ASPECTS OF THE NEXUS REQUIREMENT

A. *Burden of Proof*

Nexus being such a critical prerequisite to reliance upon objective evidence of nonobviousness, the issue of who has the burden of proving the presence or absence of nexus is likewise critical. In the prosecution context, the question is whether the burden falls upon the applicant or the examiner. In the litigation context, the question is whether the burden falls upon the patentee or the patent challenger.

The patent prosecution context is the easier of the two scenarios. The C.C.P.A. clearly established long ago that and PTO examiner has the initial burden of demonstrating the *prima facie* obviousness of a claimed invention for which a patent is sought, after which the burden shifts to the applicant to rebut the examiner's *prima facie* case by distinguishing the applied prior art and/or by presenting objective evidence of nonobviousness along with a showing of the requisite nexus.¹⁰ This makes perfect sense, since the examiner is responsible for conducting a search of the relevant prior art but is not privy to the market realities relative to the claimed invention. The examiner has no discovery or evidence gathering mechanisms at his disposal for ferreting out these market realities. Rather it is the applicant who is in possession of the facts relative to such things as the commercial success of his invention, any long felt need within the industry, or the attempts or failures of others to solve the problem solved by the invention.

precedent. *South Corp. v. United States*, 690 F.2d 1368, 1369, 215 U.S.P.Q. 657 (Fed. Cir. 1982). However, although the Federal Circuit has conclusively established the need for a nexus between a claimed invention and any objective evidence of nonobviousness, it has laid down few specific guidelines for properly establishing the requisite nexus to the various types of objective evidence. Thus, the opinions of the lower courts, to the extent they are consistent with Federal Circuit precedent, continue to have vitality and will be discussed.

¹⁰ E.g., *In re Thompson*, 545 F.2d 1290, 1294-95, 192 U.S.P.Q. 275 (C.C.P.A. 1976); *In re Palmer*, 451 F.2d 1100, 1102-04, 172 U.S.P.Q. 126 (C.C.P.A. 1971); *In re Tiffin*, 443 F.2d 394 398-400, 170 U.S.P.Q. 88 (C.C.P.A.), *modified on other grounds*, 448 F.2d 791, 171 U.S.P.Q. 294 (C.C.P.A. 1971). See also *In re Hedges*, 783 F.2d 1038, 1039, 228 U.S.P.Q. 685 (Fed. Cir. 1986).

The question of who has the burden of proving nexus in the litigation context is somewhat more difficult. The Federal Circuit has clearly stood by the longstanding tradition of placing the ultimate burden of proving patent invalidity on the party challenging the patent.¹¹ Such being the case, an argument can be made that, consistent with the ultimate burden, the patent challenger should carry the burden of proving the absence of a nexus between any objective evidence and the claimed invention. At least one court has so held.¹²

On the other hand, it is the patentee who is interested in rebutting the patent challenger's case with objective evidence of nonobviousness, and it is the patentee who is in possession of the facts which will explain the reasons behind any such evidence.¹³ Therefore, even though the patent challenger carries the ultimate burden of proving invalidity, a strong argument can be made that the patentee should be required to prove the requisite nexus if the patentee desires to rely upon objective evidence. This appears to be the prevailing modern view, and specifically the view of the Court of Claims.¹⁴

The Federal Circuit has not squarely decided this issue, but it has decided it by implication. In *Pentec, Inc. v. Graphic Controls Corp.*,¹⁵ in the course of a discussion of objective evidence relative to Graphic's claimed recording pen, the Court stated that "[i]n sum, GC [Graphic Controls] has simply failed on this record to show the required nexus."

The Court did hold in *American Hospital, Supply Corp. v. Trav-enol Laboratories, Inc.*,¹⁶ that the patentee was under no burden to demonstrate a new and surprising result from its claimed amino acid

11 E.g., *Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 885, 221 U.S.P.Q. 1025 (Fed. Cir. 1984); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1534, 218 U.S.P.Q. 871 (Fed. Cir. 1983). In the case of a motion for preliminary relief, the burden is on the movant to support the validity of the patent. *Atlas Powder Co. v. Ireco Chem.*, 773 F.2d 1230, 1233, 227 U.S.P.Q. 289 (Fed. Cir. 1985); *Jenn-Air Corp. v. Modern Maid Co.*, 209 U.S.P.Q. 295, 298 (D. Del. 1980).

12 *Sherman-Clay Co. v. Searchlight Home Co.*, 214 F.86, 94 (9th Cir. 1914).

13 Of course, this statement does not hold true with regard to evidence of simultaneous solutions offered in support of a holding of obviousness. See *infra* notes 158-64 and accompanying text. At least one court has imposed the burden of proof on the patent challenger as to such evidence. *Dennison Mfg. Co. v. Ben Clements and Sons, Inc.*, 467 F.Supp. 391, 423, 203 U.S.P.Q. 895 (S.D.N.Y. 1979).

14 *Jacobson Bros., Inc. v. United States*, 184 U.S.P.Q. 181, 187 (Ct. Cl., Trial Div. 1974), *aff'd*, 512 F.2d 1065, 185 U.S.P.Q. 168 (Ct. Cl. 1975); *Sheldon Friedlich Mktg. Corp. v. Carol Wright Sales, Inc.*, 219 U.S.P.Q. 883, 889 n.38 (S.D.N.Y. 1983); *Crane Co. v. Goodyear Tire & Rubber Co.*, 219 U.S.P.Q. 1100, 1110 (N.D. Ohio 1983); *Jenn-Air Corp. v. Modern Maid Co.*, 209 U.S.P.Q. 295, 299 (D. Del. 1981); *Pacific Technica Corp. v. United States*, 217 U.S.P.Q. 621, 624 (Cl. Ct. 1983).

15 776 F.2d 309, 316, 227 U.S.P.Q. 766 (Fed. Cir. 1985).

16 745 F.2d 1, 8, 223 U.S.P.Q. 577 (Fed. Cir. 1984).

nutritional formulation, but that the burden lay with the patent challenger to prove the absence of a new and surprising result consistent with the challenger's ultimate burden of proving invalidity. However, this was not a holding regarding the burden of proving nexus, but only a reinforcement of the Court's view that objective evidence is not essential to a finding of nonobviousness,¹⁷ and that if the patent challenger fails to prove that the patent is obvious, the patent will be upheld.¹⁸

Thus, the Federal Circuit's position appears to be that the burden lies with the patentee to establish a nexus between objective evidence of nonobviousness and the claimed invention. In any event, that is the express position of the Court of Claims, which position is the law in the Federal Circuit until it is overruled.¹⁹

B. *Standard of Proof*

Another critical procedural issue is what will be accepted as adequate proof of nexus. For example, must the claimed invention be the sole reason for the commercial success, industry acquiescence, or other objective evidence, one of many reasons, or something in between?

The C.C.P.A. addressed this issue in the context of patent prosecution on at least two occasions. In *In re Caveney*,²⁰ the Court, in an opinion by Judge Rich, held that a nexus vis-a-vis the commercial success of the wiring duct there at issue was not adequately demonstrated where four out of five proclaimed advantages of the invention were also present in the prior art devices. The Court decided that the "commercial success may well be due to those features [the features found in the prior art]. . . ."²¹ The Court rejected the evidence without further commenting on what proof would have been acceptable. One only can speculate on the outcome if only one, two or three of five advantages were present in the prior art.

Three years later in *In re Heldt*,²² the Court, in an opinion written by Judge Baldwin, went so far as to state that commercial success "can only be given effect when it is positively clear from the facts

¹⁷ *Leinoff v. Louis Milona & Sons, Inc.*, 726 F.2d 734, 740, 220 U.S.P.Q. 845 (Fed. Cir. 1984); *Kansas Jack, Inc. v. Kuhn*, 719 F.2d 1144, 1150-51, 219 U.S.P.Q. 857 (Fed. Cir. 1983).

¹⁸ See *supra* note 11.

¹⁹ See *supra* note 9.

²⁰ 386 F.2d 917, 922-23, 155 U.S.P.Q. 681 (C.C.P.A. 1967).

²¹ 386 F.2d at 923.

²² 433 F.2d 808, 812-13, 167 U.S.P.Q. 676 (C.C.P.A. 1970).

presented therein that the commercial success asserted was the direct result of the unique characteristics of the claimed invention [hollow plastic golf bag tubes] and not due to other causes.” The Court rejected the affidavit evidence despite the fact that it showed a fourfold increase in sales with the introduction of the tubes, since applicant had failed to indicate the comparative time periods and had further failed to indicate that the commercial success was *not* due to other factors.

In the litigation context, the decisions vary. In *Aktiebolaget Karlstad Mekaniska Werkstad v. United States International Trade Commission*,²³ the Federal Circuit suggested that it would reject evidence of commercial success and long felt need where the prior art itself “contributed” to the success of the subject patented device. But in a very recent case, *Windsurfing International, Inc. v. AMF Inc.*,²⁴ the Court upheld the lower court’s heavy reliance upon objective evidence and its holding of nonobviousness despite substantial evidence that factors other than the claimed features played a significant role in the commercial success and industry recognition of the claimed sailboard.

In *Douglas v. United States*,²⁵ the Court of Claims held that the commercial success of accused airplanes could not be relied upon where the “evidence shows that other factors are highly significant to the success of those airplanes.” However, in *Douglas* there actually was no evidence that the accused airplanes incorporated the claimed features, and in fact the key to their success was shown to be due to an unclaimed feature for maintaining control of the airplane. Thus, the Court was being overly kind to the patentee, and the Court’s standard probably cannot be relied upon.

In *Jacobson Brothers, Inc. v. United States*,²⁶ the Court of Claims established a more reliable standard when it held that commercial success must be shown to be “at least in substantial part” due to the features of the claimed invention. Plaintiff was unable to show that the commercial success was due to his particular underwater television cable maneuvering system as opposed to an old cable maneuvering concept which the system utilized. Thus, the evidence of commercial success was rejected.

23 705 F.2d 1565, 1577, 217 U.S.P.Q. 865 (Fed. Cir. 1983).

24 782 F.2d 995, 999–1000, 228 U.S.P.Q. 562 (Fed. Cir. 1986). See also *Medtronic, Inc. v. Daig Corp.*, 789 F.2d 903, 907, 229 U.S.P.Q. 664 (Fed. Cir. 1986).

25 510 F.2d 364, 370, 184 U.S.P.Q. 613 (Ct. Cl.), *cert. denied*, 423 U.S. 825 (1975).

26 184 U.S.P.Q. 181, 187 (Ct. Cl., Trial Div. 1974), *aff’d*, 512 F.2d 1065, 185 U.S.P.Q. 168 (Ct. Cl. 1975).

Other courts' opinions have likewise covered the waterfront on the standard of proof issue. On one side are the courts which take a very strict view. In *Bally Manufacturing Corp. v. D. Gottlieb & Co.*,²⁷ the Court rejected evidence of failures of others stating: "So, while there is some evidence of failures by others, it isn't by any means a showing of a hopeless situation or a showing of total frustration. . . ." Similarly, in *Jenn-Air Corp. v. Modern Maid Co.*,²⁸ the Court rejected evidence of industry acquiescence where there was "evidence that acquiescence could have been caused by other factors other than belief in validity . . . [and] acquiescence cannot be used to establish validity 'beyond question.'"²⁹

On the other hand, in *Magnavox Co. v. Chicago Dynamic Industries*,³⁰ the Court followed a path similar to *Jacobson Brothers* when it held that "few things are ever the sole cause of anything else, and one looks not for sole causes but for substantial causal relationships." The Court upheld the claimed television game on the basis of persuasive evidence of failure of others, copying and commercial success. Likewise, in *Schweitzer Industrial Corp. v. Binks Manufacturing Co.*,³¹ the Court accepted evidence of the commercial success of a paint spray booth holding that "it is not necessary to definitively determine which device is the basis for Schweitzer's commercial success since this secondary consideration is not the determinative factor in the Court's conclusion of nonobviousness."³²

It is difficult to glean anything other than the most amorphous of rules from such a hodgepodge of holdings and such minimal guidance from the Federal Circuit. Nonetheless, there are some general lessons to be learned and guidelines to be followed. First, to be safe in proving

²⁷ 222 U.S.P.Q. 681, 685 (N.D. Ill. 1984).

²⁸ 209 U.S.P.Q. 295, 299 (D. Del. 1981).

²⁹ See also *Carter-Wallace, Inc. v. Gillette Co.*, 531 F. Supp. 840, 872, 211 U.S.P.Q. 499 (D. Mass. 1981), *modified on other grounds*, 675 F.2d 10, 214 U.S.P.Q. 497 (1st Cir. 1982) (commercial success not "due solely, or even primarily, to the features of the claimed invention"); *Allen Group, Inc. v. Nu-Star, Inc.*, 195 U.S.P.Q. 513, 522 (N.D. Ill. 1977), *aff'd*, 575 F.2d 146, 197 U.S.P.Q. 849 (7th Cir. 1978) (no showing that the commercial success "was due exclusively to the alleged inventive features"); *True Temper Corp. v. CF&I Steel Corp.*, 193 U.S.P.Q. 763, 774 (D. Colo. 1977), *modified on other grounds*, 601 F.2d 495, 202 U.S.P.Q. 412 (10th Cir. 1979) (commercial success was not "demonstrably due to the patentable qualities"); *In re Certain Caulking Guns*, 223 U.S.P.Q. 338, 402-03 (U.S.I.T.C. 1984) (commercial success may have been due to factors other than the inventive features).

³⁰ 201 U.S.P.Q. 25, 27 (N.D. Ill. 1979).

³¹ 211 U.S.P.Q. 600, 610 (E.D. Mich. 1981).

³² The Court's reasoning appears to be contrary to the Federal Circuit's view that secondary considerations can in fact be determinative on the obviousness issue.

nexus, the evidence must be marshalled to show at least that the claimed features contributed significantly to the existence of the objective evidence. Second, the proponent of a nexus must show that any extraneous factors do not overshadow the claimed features, while the opponent should do his best to at least cloud the issue. Third, the lower courts are presently being permitted substantial freedom on this issue. Since a clearly erroneous standard of review applies to the Federal Circuit's review of findings of fact by a lower court,³³ a favorable holding from a lower court that has engaged in the proper analysis is invaluable.

C. *Relevance vs. Weight*

An important evidentiary issue is the question of whether proof of a nexus is a condition prerequisite to the relevance of objective evidence of nonobviousness, or whether the extent of the proof of a nexus merely affects the weight to be assigned to such evidence. The outcome of this issue is significant, since it impacts upon the order of proofs, the length and efficiency of the trial, and the ability or inability to influence the trier of fact with actual marketplace evidence.

As will be appreciated, the question is especially critical in jury cases. Juries, more so than judges, are prone to undue influence by such evidence as large dollar sales or efforts and failures by others to solve problems. If a patentee is permitted to present such evidence without first establishing a nexus, no instruction in the world could truly erase the objective evidence from the jury's mind. This very type of problem was recognized by the drafters of the Federal Rules of Evidence, and several provisions were written into the Rules to avoid undue jury prejudice.³⁴

The Supreme Court once again set the stage on this issue in *Calmar, Inc. v. Cook Chemical Co.*³⁵ There the Court was confronted with evidence of long but unsuccessful attempts by others in the industry to develop a workable shipper-sprayer. While generally holding that such evidence "may have relevancy" as indicia of nonobviousness,³⁶ the Court nonetheless rejected the evidence stating that

³³ E.g., *Dennison Mfg. Co. v. Panduit Corp.*, 106 S. Ct. 1578 89 L. Ed. 2d 817, 821-22 (1986); *Windsurfing Int'l, Inc. v. AMF Inc.*, 782 F.2d 995, 1000, 228 U.S.P.Q. 562 (Fed. Cir. 1986); *Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 313, 227 U.S.P.Q. 766 (Fed. Cir. 1985).

³⁴ See, e.g., Rules 103(c), 104(b) and 403, Federal Rules of Evidence for United States Courts and Magistrates, Pub. L. No. 93-595, §1, 88 Stat. 1926 (1985).

³⁵ 383 U.S. 1 (1966) (companion case to *Graham v. John Deere Co.*).

³⁶ *Id.* at 18.

“unsuccessful attempts to reach a solution to the problems . . . before that time [the date of a material prior art reference] became wholly irrelevant.”³⁷

Taking its lead from the Supreme Court, the C.C.P.A. likewise established, in both patent prosecution and litigation contexts, that proof of a nexus was a precondition to the relevancy of objective evidence of nonobviousness. In *In re Caveney*,³⁸ the Court rejected, as irrelevant, evidence of the commercial success of and failures of others to make the wiring duct there at issue. The Court specifically stated that: “Utilization of any of these aids [objective evidence], however, must await the initial establishment of a nexus between the subtest and nonobviousness.”³⁹ The Court later confirmed its position in *In re Felton*,⁴⁰ holding that: “A nexus . . . must be established before that [objective] evidence becomes relevant to the question of obviousness.”⁴¹

Unfortunately, this is one area which the Federal Circuit has confused rather than clarified. In *Vandenberg v. Dairy Equipment Co.*,⁴² the Court cited with approval the simple C.C.P.A. position that establishment of a nexus is a condition to the relevancy of objective evidence. But in most all of its other cases, the Federal Circuit has focused upon weight, rather than relevancy, as the affected component. Exemplary of such cases is *Stratoflex, Inc. v. Aeroquip Corp.*,⁴³ wherein the Court cites the C.C.P.A.’s decision in *Solder Removal* for the somewhat transformed proposition that: “A nexus is required . . . if that [objective] evidence is to be given substantial weight enroute to conclusion on the obviousness issue.” Also exemplary is *W. L. Gore & Associates, Inc. v. Garlock, Inc.*,⁴⁴ where the Court proclaimed that objective evidence is to be given varying weight depen-

³⁷ *Id.* at 36.

³⁸ 386 F.2d 917, 923, 155 U.S.P.Q. 681 (C.C.P.A. 1967).

³⁹ *Id.*

⁴⁰ 484 F.2d 495, 501, 179 U.S.P.Q. 295 (C.C.P.A. 1973).

⁴¹ See also *Bourns, Inc. v. United States*, 187 U.S.P.Q. 174, 181–83 (Ct. Cl. Trial Div. 1975), *aff’d*, 537 F.2d 486, 199 U.S.P.Q. 256 (Ct. Cl. 1976); *Solder Removal Co. v. United States Int’l Trade Comm’n*, 582 F.2d 628, 637, 199 U.S.P.Q. 129 (C.C.P.A. 1978); *In re Thompson*, 545 F.2d 1290, 1295, 192 U.S.P.Q. 275 (C.C.P.A. 1976); *Shelcore, Inc. v. Durham Indus., Inc.*, 221 U.S.P.Q. 891, 897 (E.D. Pa. 1984).

⁴² 740 F.2d 1560, 1567, 224 U.S.P.Q. 195 (Fed. Cir. 1984).

⁴³ 713 F.2d 1530, 1539, 218 U.S.P.Q. 871 (Fed. Cir. 1983).

⁴⁴ 721 F.2d 1540, 1555, 220 U.S.P.Q. 303 (Fed. Cir. 1983), *cert. denied*, 105 S. Ct. 172 (1984).

dent upon the nature of the evidence and its relationships to the invention's merits.⁴⁵

Read in conjunction with the Court's continued insistence that "evidence rising out of the so-called 'secondary considerations' must always when present be considered enroute to a determination of obviousness,"⁴⁶ it can be persuasively argued that proof of nexus in the Federal Circuit now affects only the weight to be assigned objective evidence, not its relevancy altogether. However, a closer review of the Federal Circuit's position reveals a way in which it can be reconciled with the earlier stated positions of the Supreme Court and the C.C.P.A. Even in *Stratoflex* the Court held that: "It is jurisprudentially inappropriate to disregard any *relevant* evidence on any issue in any case. . . ."⁴⁷ And, in *Connell v. Sears, Roebuck & Co.*,⁴⁸ the Court held that: "It is inappropriate and injudicious to disregard any *admissible* evidence in any judicial proceeding." Of course, under the Federal Rules of Evidence, irrelevant evidence is inadmissible.⁴⁹ Thus, the court has clearly left open the possibility that certain objective evidence may be ruled irrelevant if there is absolutely no nexus established. On the other hand, the Court has also made it clear that such cases are rare, and that in the vast majority of cases objective evidence should be considered and given appropriate weight dependent upon the extent of the nexus demonstrated.

D. Jury Trials

A final procedural/evidentiary concern is the proper handling of juries relative to the nexus issue. The importance of the relevance/weight dichotomy in the jury context has already been discussed.⁵⁰ Another critical point is the proper use of jury instructions and interrogatories.

It is now established in the Federal Circuit that the question of obviousness is a question of law premised upon factual underpin-

⁴⁵ See also *Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 315, 227 U.S.P.Q. 766 (Fed. Cir. 1985). But see *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1027, 226 U.S.P.Q. 881 (Fed. Cir. 1985), where the court states on the one hand that a nexus is required for commercial success "to have true relevance to the issue of nonobviousness," but on the other hand that a nexus is required "if that evidence is to be given substantial weight."

⁴⁶ *Stratoflex*, 713 F.2d at 1538.

⁴⁷ 713 F.2d at 1538.

⁴⁸ 722 F.2d 1542, 1549, 220 U.S.P.Q. 193 (Fed. Cir. 1983).

⁴⁹ Rule 402, Federal Rules of Evidence for United States Courts and Magistrates, Pub. L. No. 93-595, §1, 88 Stat. 1926 (1985).

⁵⁰ See *supra* text accompanying note 34.

nings.⁵¹ As such, it is also established that the obviousness may properly be decided by a jury after appropriate instruction from the court.⁵² A jury sitting as the trier of fact on the obviousness issue must consider the *Graham* inquiries, including the existence and extent of any objective evidence.⁵³ Necessarily, the jury must also consider whether there exists a nexus between any objective evidence and the claimed invention.

The Federal Circuit has held that special interrogatories to the jury, requesting elaboration as to each of its findings of fact, are encouraged but not mandatory.⁵⁴ Thus, where a jury renders a general verdict without being asked to answer specific interrogatories, it will be presumed that the jury made factual findings supportive of its general verdict.⁵⁵ In that case, any errors in the jury's factual analysis are indiscernible. This includes the jury's finding vis-à-vis the requisite nexus. As can readily be imagined, it is all too easy for a jury to be overwhelmed by objective evidence toward a holding of validity without properly finding that requisite nexus; in the absence of special interrogatories, the unwary patent challenger will never be the wiser. Likewise, the absence of interrogatories will fail to reveal the occasional runaway jury which finds a patent invalid even though, unbeknownst to the patentee, the jury found strong objective evidence of nonobviousness along with the requisite nexus to the claimed inventive features.

Therefore, for a clear understanding of the basis or lack of basis for a jury's verdict, the jury should be requested to answer interrogatories directed to its factual findings.⁵⁶ In addition to interrogatories directed to the first three *Graham* inquiries, the jury should be asked to identify each type of objective evidence that the jury found to be existent in the case, to specifically indicate whether it found each type

⁵¹ E.g., *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1547, 220 U.S.P.Q. 193 (Fed. Cir. 1983).

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 720, 223 U.S.P.Q. 1264 (Fed. Cir. 1984); *Weinar v. Rollform Inc.*, 744 F.2d 797, 809–10, 223 U.S.P.Q. 369 (Fed. Cir. 1984), *cert. denied*, 105 S. Ct. 1844 (1985).

⁵⁵ *Bio-Rad Laboratories, Inc. v. Nicolet Instrument Corp.*, 739 F.2d 604, 607, 222 U.S.P.Q. 654 (Fed. Cir.), *cert. denied*, 105 S. Ct. 516 (1984); *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893, 221 U.S.P.Q. 669 (Fed. Cir.), *cert. denied*, 105 S. Ct. 187 (1984).

⁵⁶ *Id.* See also *R.R. Dynamics, Inc. v. A. Stucki Co.*, 727 F.2d 1506, 1517, 220 U.S.P.Q. 929 (Fed. Cir.), *cert. denied*, 105 S. Ct. 220 (1984); *White v. Jeffrey Mining Mach. Co.*, 723 F.2d 1553, 1558, 220 U.S.P.Q. 703 (Fed. Cir. 1983), *cert. denied*, 105 S. Ct. 104 (1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1547, 220 U.S.P.Q. 193 (Fed. Cir. 1983).

of objective evidence to be causally connected to the inventive features of the claims at issue, whether the objective evidence arose out of the claimed inventive features alone or as the result of numerous factors, and whether the objective evidence was the primary cause, a substantial cause, or simply a contributing cause to the objective evidence. This will avoid speculation later as to whether the jury did or did not find the requisite nexus.⁵⁷ Of course, the jury interrogatories must be designed to fit the facts of the particular case at hand, and should be dovetailed with proper jury instructions, including instructions regarding objective evidence and the requisite nexus, to assure proper analysis and response by the jury.⁵⁸

Since available data suggest that juries favor patentees,⁵⁹ it is especially important for the alleged infringer to make optimal use of the tools for probing the basis for a jury's verdict, especially whether or not the jury found the requisite nexus. It is difficult enough for the accused infringer to convince a jury of a patent's invalidity in the presence of the patent's extensive commercial success or industry recognition without leaving to presumption the jury's finding regarding the nexus element. Without jury interrogatories, the alleged infringer later has little or no capability of demonstrating error in the jury's analysis in support of a motion for a Judgment N.O.V. Of course, properly drafted interrogatories will also serve to protect the patentee who finds himself faced with a jury verdict of invalidity despite the jury's findings of substantial objective evidence of nonobviousness and the existence of the requisite nexus.

III. ACCEPTABLE PROOF OF NEXUS FOR VARIOUS TYPES OF OBJECTIVE EVIDENCE

Proof of a nexus having been established as the *sine qua non* to the provision of substantial weight to, if not the relevance of, objective evidence of nonobviousness, the most obvious immediate question is how to go about proving the requisite nexus. Although this question can only be accurately answered by means of a detailed review of the facts of the particular case, judicial precedent can, as usual, provide

⁵⁷ See, e.g., *White v. Jeffrey Mining Mach. Co.*, 723 F.2d 1553, 1559, 220 U.S.P.Q. 703 (Fed. Cir. 1983), *cert. denied*, 105 S. Ct. 104 (1984).

⁵⁸ The Federal Circuit will not hesitate to scrutinize the jury instructions to assure that they track the Court's proclamations on objective evidence and the nexus requirement. See, e.g., *Jamesbury Corp. v. Litton Indus. Prods., Inc.*, 756 F.2d 1556, 1558-60, 225 U.S.P.Q. 253 (Fed. Cir. 1985).

⁵⁹ See, e.g., Baldo, *Juries Love the Patent Holder*, *Forbes*, June 17, 1985, at 147.

significant insight. Thus, the latter portion of this article will focus upon some of the more helpful judicial opinions of the post-*Graham* era in an effort to develop some useful guidelines for establishing a nexus between claimed inventions and the various types of objective evidence of nonobviousness.

A. *Commercial Success*

In establishing a nexus between a claimed invention and evidence of commercial success, the patentee and his attorney should keep in mind the reasons why commercial success is considered to be indicative of nonobviousness. Viewed from a vantage point before the fact, it is assumed that if a solution to a given problem carried with it the possibility of market success, then potential innovators would have been induced to attempt a solution to the problem in order to reap the market reward. If commercial success was ultimately in fact attained, then it can be inferred that others attempted but failed to solve the problem.⁶⁰ Viewed from a vantage point after the fact, the fact of the commercial success in conjunction with other evidence, such as copying by those in the industry, is an indication that the patent is recognized as involving uncommon ingenuity rather than merely the application of ordinary skill.⁶¹ Regardless of the vantage point, however, commercial success is only probative of nonobviousness if it is the result of the inventive features as opposed to other factors.⁶² If the commercial success is not tied to the inventive features, it cannot be said that innovators would have perceived the potential of the invention for market success, nor can it be said that the commercial success is indicative of inventive ingenuity.

With the above principles in mind, it is understandable that courts have not been inclined to accept bald sales figures alone as indicative

⁶⁰ Note, *Subtests of "Nonobviousness": A Nontechnical Approach to Patent Validity*, 112 U. Pa.L. Rev. 1169, 1175–1176 (1964) [hereinafter cited as Note, *Subtests of "Nonobviousness"*]; Comment, *A Re-examination of the Problem of Nonobviousness and Patent Validity*, 4 Gonz. L. Rev. 65, 73 (1968) [hereinafter cited as Comment, *A Re-examination*]. But see Kitch, *Graham v. John Deere Co.: New Standards for Patents*, 1966 Sup. Ct. Rev. 293, 331–32, wherein it is argued that this basis for reliance upon commercial success evidence has a shaky foundation comprising a series of faulty inferences.

⁶¹ Boyer, *Commercial Success as Evidence of Patentability*, 37 Fordham L. Rev. 573, 573 (1969).

⁶² See *supra* text accompanying notes 5–7.

of nonobviousness.⁶³ Evidence of numbers of units sold, volume of dollar sales, and proof of existing market share quite simply do not indicate anything with regard to the reason or reasons for the commercial success.⁶⁴ While the courts consider such sales and market data to be part of the commercial success analysis,⁶⁵ such evidence must be placed in perspective by demonstrating that the subject invention displaced prior art devices or surpassed the volume sales of prior art devices,⁶⁶ that the patentee's market share increased significantly after introduction of the subject invention,⁶⁷ or that the patentee was able to demand an extraordinary per unit price for his invention.⁶⁸ In this regard, courts seem to be greatly influenced by the presentation or lack of presentation of expert testimony as to the reasons behind any such commercial success.⁶⁹

⁶³ E.g., *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1026–27, 226 U.S.P.Q. 881 (Fed. Cir. 1985) (number of units sold and profit per unit not enough); *Vandenberg v. Dairy Equip. Co.*, 740 F.2d 1560, 1567, 224 U.S.P.Q. 195 (Fed. Cir. 1984) (evidence of dollar sales alone insufficient); *Kansas Jack, Inc. v. Kuhn*, 719 F.2d 1144, 1151, 219 U.S.P.Q. 857 (Fed. Cir. 1983) (number of units sold not enough); *Solder Removal Co. v. United States Int'l Trade Comm'n*, 582 F.2d 628, 637, 199 U.S.P.Q. 129 (C.C.P.A. 1978) (proof of 90% market share insufficient); *In re Mageli*, 470 F.2d 1380, 1384, 176 U.S.P.Q. 305 (C.C.P.A. 1973) (evidence of large sales insufficient by itself); *In re Heldt*, 433 F.2d 808, 812, 167 U.S.P.Q. 676 (C.C.P.A. 1970) (fourfold increase in dollar sales insufficient without indication of time periods compared and further indication of absence or other explanatory factors such as price increases, general market improvements, etc.).

⁶⁴ *Id.*

⁶⁵ E.g., *Ralston Purina Co. v. Far-Mar Co.*, 586 F. Supp. 1176, 1223, 222 U.S.P.Q. 863 (D. Kan. 1984), *modified on other grounds*, 772 F.2d 1570, 227 U.S.P.Q. 177 (Fed. Cir. 1985) ("Defendant's sales are a portion of the proof of the commercial success factor to be considered. . . ."); *Am. Precast Corp. v. Maurice Concrete Prods., Inc.*, 360 F. Supp. 859, 863, 179 U.S.P.Q. 443 (D. Mass. 1973) (annual numbers of units sold considered).

⁶⁶ E.g., *Vandenberg v. Dairy Equip. Co.*, *supra* note 63, 740 F.2d at 1567; *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1382, 217 U.S.P.Q. 1281 (Fed. Cir. 1983); *Andis Clipper Co. v. Oster Corp.*, 481 F. Supp. 1360, 1378–79, 206 U.S.P.Q. 23 (E.D. Wis. 1979); *Lewart Co. v. Acco Int'l, Inc.*, 428 F. Supp. 258, 264, 192 U.S.P.Q. 376 (N.D. Ill. 1977), *aff'd mem.*, 558 F.2d 1031 (7th Cir. 1977).

⁶⁷ *Vandenberg v. Dairy Equip. Co.*, *supra* note 63, 740 F.2d at 1567; *Kansas Jack, Inc. v. Kuhn*, *supra* note 63, 719 F.2d at 1151. The commercial success evidence may be pertinent even if there is a delay between the time the claimed invention is introduced to the market and the time when the commercial success occurs. *Kloster Speedsteel AB v. Crucible Inc.*, 230 USPQ 81, 87, (Fed. Cir. 1986); *Windsurfing Int'l. Inc. v. AMF Inc.*, 782 F.2d 995, 999–1000, 228 U.S.P.Q. 562 (Fed. Cir. 1986).

⁶⁸ *Cable Elec. Prods., Inc. v. Genmark, Inc.*, *supra* note 63, 770 F.2d at 1026–27; *Farmhand, Inc. v. Lahman Mfg. Co.*, 192 U.S.P.Q. 749, 761 (D.S.D. 1976), *aff'd*, 568 F.2d 112, 196 U.S.P.Q. 597 (8th Cir. 1978).

⁶⁹ See, e.g., *Colortronic Reinhard & Co., K.G. v. Plastic Controls, Inc.*, 668 F.2d 1, 7, 213 U.S.P.Q. 801 (1st Cir. 1981); *Mattel, Inc. v. Hyatt*, 206 U.S.P.Q. 499, 501, 514 (C.D. Cal.), *aff'd*, 664 F.2d 757, 212 U.S.P.Q. 808 (9th Cir. 1981).

It is critical that the commercial success evidence be shown to be due to the unique features of the claimed invention if the commercial success is to be considered vis-à-vis the patentability of those claims.⁷⁰ Evidence of the success of a commercial embodiment which does not incorporate the features or advantages of the patent claims at issue is not indicative of the patentability of the invention as claimed.⁷¹ Similarly, evidence of commercial success which is tied to features or advantages disclosed or inherent in the prior art, or arising out of improvements made subsequent to the claimed invention, may be indicative of the inventiveness of the prior art or improvement rather than the nonobviousness of the claimed invention.⁷² Likewise, commercial success will not be considered indicative of nonobviousness where it is due to trade secrets, engineering know-how, or other items which are not part of the claimed invention.⁷³

Advertising and other forms of product promotion pose particularly difficult problems for the unwary patentee.⁷⁴ Although it is natural

⁷⁰ Commercial success arising out of an apparatus or process for using a claimed product will suffice to establish a nexus between the commercial success and the product. *In re Felton*, 484 F.2d 495, 500–01, 179 U.S.P.Q. 295 (C.C.P.A. 1973). *But see Avant Inc. v. Polaroid Corp.*, 572 F.2d 889, 892, 197 U.S.P.Q. 593 (1st Cir.), *cert. denied*, 439 U.S. 837 (1978).

⁷¹ *In re Vamco*, 752 F.2d 1564, 1577, 224 U.S.P.Q. 617 (Fed. Cir. 1984); *Richdel, Inc. v. Sunspool Corp.*, 714 F.2d 1573, 1580, 219 U.S.P.Q. 8 (Fed. Cir. 1983); *Douglas v. United States*, 510 F.2d 364, 370, 184 U.S.P.Q. 613 (Ct. Cl.), *cert. denied*, 423 U.S. 825 (1975); *In re Thompson*, 545 F.2d 1290, 1295, 192 U.S.P.Q. 275 (C.C.P.A. 1976); *Park-Ohio Indus., Inc. v. Letica Corp.*, 617 F.2d 450, 454, 205 U.S.P.Q. 781 (6th Cir. 1980). *But cf. Schweitzer Indus. Corp. v. Binks Mfg. Co.*, 211 U.S.P.Q. 600, 610 (E.D. Mich. 1981) (commercial embodiments close enough so as not to destroy probative value of commercial success evidence).

⁷² *Aktiebolaget Karlstads Mekaniska Werkstad v. United States Int'l Trade Comm'n*, 705 F.2d 1565, 1577, 217 U.S.P.Q. 865 (Fed. Cir. 1983); *Jacobson Bros., Inc. v. United States*, 184 U.S.P.Q. 181, 187 (Ct. Cl., Trial Div. 1974), *aff'd.*, 512 F.2d 1065, 185 U.S.P.Q. 168 (Ct. Cl. 1975); *Sims v. Mack Trucks, Inc.*, 459 F. Supp. 1198, 1214 n.5, 199 U.S.P.Q. 668 (E.D. Pa. 1978), *modified on other grounds*, 608 F.2d 87, 203 U.S.P.Q. 961 (3d Cir. 1979), *cert. denied*, 445 U.S. 930 (1980); *Keiser v. High Point Hardware Co.*, 311 F.2d 850, 853, 136 U.S.P.Q. 612 (4th Cir. 1962); *Am. Infra-Red Radiant Co. v. Lambert Indus., Inc.*, 360 F.2d 977, 989–91, 149 U.S.P.Q. 722 (8th Cir.), *cert. denied*, 385 U.S. 920 (1966). *But see Bowles Fluidics Corp. v. Mossinghoff*, 620 F. Supp. 1297, 1305–06, 228 U.S.P.Q. 512 (D.D.C. 1985) (commercial success relied upon to support validity of a base patent where both the base patent and an improvement patent contributed to the commercial success).

⁷³ *Am. Infra-Red Radiant Co. v. Lambert Indus., Inc.*, *supra* note 72, 360 F.2d at 989–91; *Kaiser Indus. Corp. v. McLouth Steel Corp.*, 400 F.2d 36, 43, 158 U.S.P.Q. 565 (6th Cir. 1968), *cert. denied*, 393 U.S. 1119 (1969). *But cf. Windsurfing Int'l, Inc. v. AMF Inc.*, *supra* note 67, 782 F.2d at 999–1000 (nexus established despite evidence that 10–15% of gross receipts were due to unclaimed accessories).

⁷⁴ *See generally Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 315–17, 227 U.S.P.Q. 766 (Fed. Cir. 1985) (sales figures not given controlling weight in light of heavy advertising and fact that patentee was market leader); *In re Boyer*, 363 F.2d 455, 459, 150 U.S.P.Q. 441 (C.C.P.A. 1966) (court unable to separate commercial success stemming from the invention from that

for a company to rely upon all of the many splendid features of its product when marketing that product, that type of product promotion can render difficult the ability to demonstrate a nexus between commercial success and the claimed features. Solid commercial success evidence has been rejected where a court was unable to sort out the effect of a claimed feature which was promoted along with numerous unclaimed features.⁷⁵ Commercial success evidence has likewise been rejected where the patentee's vigorous advertising and promotional techniques were shown to have been successful vis-à-vis unpatented products in addition to the patented products, thereby raising an inference that the success of the patented product was due, for the most part, to promotion rather than invention.⁷⁶

The best way to assure acceptance of commercial success evidence, and to overcome some of the hurdles discussed above, is to secure an admission of commercial success from the patent challenger, preferably including a specific and express admission of a nexus between the commercial success and the claimed invention.⁷⁷ The second best way is to present the commercial success evidence along with other objective evidence. Thus, if combined with evidence of long felt need or failures of others, it will be clear that the potential commercial success of the claimed invention was in fact perceived by innovators in the art, but eluded them as a result of their inability to solve the

resulting from sales promotion); *Revlon, Inc. v. Carson Prods. Co.*, 602 F. Supp. 1071, 1096-97, 226 U.S.P.Q. 51 (S.D.N.Y. 1985); *Shelcore Inc. v. Durham Indus., Inc.*, 221 U.S.P.Q. 891, 897 (E.D. Pa. 1984); *Ashland Oil, Inc. v. Delta Oil Prods. Corp.*, 212 U.S.P.Q. 508, 516 (E.D. Wis. 1981) (commercial success achieved by "diligent huckstering" has no bearing on the question of obviousness); *Pacific Technica Corp. v. United States*, 217 U.S.P.Q. 621, 624 (Cl. Ct. 1983); See also *supra* text accompanying notes 5-7.

⁷⁵ *Bourns, Inc. v. United States*, 187 U.S.P.Q. 174, 182 (Cl. Ct. Trial Div. 1975), *aff'd*, 537 F.2d 486, 199 U.S.P.Q. 256 (Cl. Ct. 1976) (patent owner's former sales manager testified that commercial success was due to a number of factors); *In re Fenn*, 639 F.2d 762, 765, 208 U.S.P.Q. 470 (C.C.P.A. 1981) (brochure promoting six unclaimed features); *Bontrager v. Steury Corp.*, 457 F. Supp. 526, 536, 201 U.S.P.Q. 813 (N.D. Ind. 1978), *aff'd, mem.*, 624 F.2d 1103 (7th Cir. 1979) (claimed feature listed tenth in brochure promoting sixteen features of product).

⁷⁶ *Carter-Wallace, Inc. v. Gillette Co.*, 531 F. Supp. 840, 872, 211 U.S.P.Q. 499 (D. Mass. 1981), *modified on other grounds*, 675 F.2d 10, 214 U.S.P.Q. 497 (1st Cir. 1982).

⁷⁷ See, e.g., *Kloster Speedsteel AB v. Crucible Inc.*, *supra* note 67, slip op. at 16-17; *Simmons Fastener Corp. v. Ill. Tool Works, Inc.*, 739 F.2d 1573, 1574, 222 U.S.P.Q. 744 (Fed. Cir. 1984), *cert. denied*, 105 S. Ct. 2138 (1985); *In re Shuman*, 361 F.2d 1008, 1012-13, 150 U.S.P.Q. 54 (C.C.P.A. 1966); *Diamond Int'l Corp. v. Maryland Fresh Eggs, Inc.*, 374 F. Supp. 1223, 1232, 182 U.S.P.Q. 147 (D. Md. 1974), *rev'd on other grounds*, 523 F.2d 113, 187 U.S.P.Q. 193 (4th Cir. 1975), *cert. denied*, 424 U.S. 914 (1976).

problem at hand.⁷⁸ If combined with evidence of copying, licensing, or other acceptance or recognition of the invention by the industry, the court will treat the overall evidence as a statement by the industry that the commercial success is tied to the claimed inventive features.⁷⁹ If combined with evidence of unexpected results or advantages, the causal connection between the commercial success and the merits of the claimed invention will likewise be evident.⁸⁰

In fact, one court went so far as to suggest that the existence of a nexus to the claimed features could be inferred where the commercially successful device satisfied a long felt need even in the presence of evidence otherwise suggesting that the commercial success was attributable to advertising rather than the claimed inventive features.⁸¹ Another court similarly inferred a nexus between commercial success and a claimed invention due to the presence of unexpected results.⁸² A third court rejected commercial success which was shown to be due at least in part to the claimed features, because of the absence of any showing of long felt need or failures of others.⁸³

⁷⁸ See, e.g., *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 1099–1100, 227 U.S.P.Q. 337 (Fed. Cir. 1985), *vacated on other grounds*, 106 S. Ct. 1578, 89 L. Ed. 2d 817 (1986); *Fromson v. Advance Offset Plate, Inc.*, 755 F.2d 1549, 1557–58, 225 U.S.P.Q. 26 (Fed. Cir. 1985); *Simmons Fastener Corp. v. Ill. Tool Works, Inc.*, *supra* note 77, 739 F.2d at 1574; *Palmer v. United States*, 155 U.S.P.Q. 524, 527 (Ct. Cl., Trial Div. 1967), *aff'd*, 156 U.S.P.Q. 689 (Ct. Cl. 1968); *In re McLaughlin*, 443 F.2d 1392, 1395–96, 170 U.S.P.Q. 209 (C.C.P.A. 1971); *In re Spinnoble*, 405 F.2d 578, 587, 160 U.S.P.Q. 237 (C.C.P.A. 1969); *Arriflex Corp. v. Aaton Cameras, Inc.*, 220 U.S.P.Q. 424, 432–33 (S.D.N.Y.), *aff'd mem.* (Fed. Cir. 1983); *Sheldon Friedlich Mktg. Corp. v. Carol Wright Sales, Inc.*, 219 U.S.P.Q. 883, 889 (S.D.N.Y. 1983); *Cosden Oil & Chem. Co. v. Am. Hoechst Corp.*, 543 F. Supp. 522, 541, 214 U.S.P.Q. 244 (D. Del. 1982).

⁷⁹ See, e.g., *Radio Steel & Mfg. Co. v. MTD Prods., Inc.*, 731 F.2d 840, 846, 221 U.S.P.Q. 657 (Fed. Cir. 1984), *cert. denied*, 105 S. Ct. 119 (1984); *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 895, 221 U.S.P.Q. 669 (Fed. Cir. 1984), *cert. denied*, 105 S. Ct. 187 (1984); *Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick Co.*, 730 F.2d 1452, 1461, 221 U.S.P.Q. 481 (Fed. Cir. 1984); *In re Sernaker*, 702 F.2d 989, 996–97, 217 U.S.P.Q. 1 (Fed. Cir. 1983); *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1555–56, 220 U.S.P.Q. 303 (Fed. Cir. 1983), *cert. denied*, 105 S. Ct. 172 (1984); *Johns-Manville Corp. v. Guardian Indus. Corp.*, 586 F. Supp. 1034, 1064, 221 U.S.P.Q. 319 (E.D. Mich. 1983), *modified on other grounds*, 223 U.S.P.Q. 974 (E.D. Mich. 1984), *aff'd mem.*, 770 F.2d 178 (Fed. Cir. 1985); *In re Certain Steel Rod Treating Apparatus and Components Thereof*, 215 U.S.P.Q. 237, 254 (U.S.I.T.C. 1981).

⁸⁰ See, e.g., *Preemptive Devices, Inc. v. Minn. Mining & Mfg. Co.*, 732 F.2d 903, 907, 221 U.S.P.Q. 841 (Fed. Cir. 1984); *Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick Co.*, *supra* note 79, 730 F.2d at 1461. See also *infra* notes 173–75 and accompanying text.

⁸¹ *Shelcore, Inc. v. Durham Indus., Inc.*, *supra* note 74, 221 U.S.P.Q. at 897.

⁸² *R.R. Dynamics, Inc. v. A. Stucki Co.*, 579 F. Supp. 353, 366–67, 218 U.S.P.Q. 618 (E.D. Pa. 1983), *aff'd*, 727 F.2d 1506, 220 U.S.P.Q. 929 (Fed. Cir.), *cert. denied*, 105 S. Ct. 220 (1984).

⁸³ *In re Certain Caulking Guns*, 223 U.S.P.Q. 388, 403 (U.S.I.T.C. 1984). But see *Windsurfing Int'l, Inc. v. AMF Inc.*, *supra* note 67, 782 F.2d at 999–1000.

Looking at the problem from the eyes of the patent challenger, there are a number of things that can be done to undermine the patentee's commercial success case. Obtaining an admission that the commercial success is due, at least in part, to unclaimed features, should be a goal of any patent challenger,⁸⁴ but such an admission may prove difficult to obtain. Demonstrating that the invention was developed simultaneously with the industry or market generally will greatly diminish the value of commercial success as an indicia of nonobviousness, if not eliminate the commercial success as a factor altogether.⁸⁵ Showing that the commercial success was prior to the publication of a highly pertinent prior art reference will eliminate the commercial success as a factor in the determination of the obviousness of the invention over that particular reference, since any proven or inferred failures of innovators prior to that time to solve the given problem and achieve the commercial success indicate nothing regarding what might have happened if those innovators had been equipped with the information disclosed in the subject prior art reference.⁸⁶ Utilization of consumer surveys or consumer witnesses to attest to problems with the invention may successfully prove the absence of commercial success in fact, or that any success did not result from any advantages of the claimed invention.⁸⁷ A showing that any success arose from an increase in the general popularity of the subject devices or designs will also destroy any nexus.⁸⁸ Finally, the commercial success evi-

⁸⁴ See, e.g., *Bourne, Inc. v. United States*, supra note 75, 187 U.S.P.Q. at 182; *Bontrager v. Steury Corp.*, supra note 75, 457 F. Supp. at 536.

⁸⁵ See, e.g., *Weather Eng'g Corp. of Am. v. United States*, 204 U.S.P.Q. 41, 46 (Ct. Cl., Trial Div. 1979), *aff'd*, 614 F.2d 281, 208 U.S.P.Q. 939 (Ct. Cl. 1980); *In re Palmer*, 451 F.2d 1100, 1104, 172 U.S.P.Q. 126 (C.C.P.A. 1971); *In re Goodman*, 339 F.2d 228, 232, 144 U.S.P.Q. 30 (C.C.P.A. 1964); *Grefco, Inc. v. Kewanee Indus., Inc.*, 208 U.S.P.Q. 218, 231 (D. Del. 1980), *aff'd mem.* (3d Cir.), *cert. denied*, 213 U.S.P.Q. 888 (1981); *Pullman Inc. v. ACF Indus., Inc.*, 269 F. Supp. 279, 306-07, 153 U.S.P.Q. 523 (S.D.N.Y. 1967), *aff'd*, 393 F.2d 83, 157 U.S.P.Q. 289 (2d Cir. 1968); *Am. Infra-Red Radiant Co. v. Lambert Indus., Inc.*, supra note 72, 360 F.2d at 289-91.

⁸⁶ E.g., *Calmar, Inc. v. Cook Chemical Co.*, 383 U.S. 1, 36 (1966); *In re Caveney*, 386 F.2d 917, 923, 155 U.S.P.Q. 681 (C.C.P.A. 1967).

⁸⁷ See, e.g., *Revlon, Inc. v. Carson Prods. Co.*, supra note 74, 602 F. Supp. at 1097; *Crane Co. v. Goodyear Tire & Rubber Co.*, 219 U.S.P.Q. 1100, 1110 (N.D. Ohio 1983). Of course, such evidence is also often presented in support of nonobviousness. *Stevenson v. United States Int'l Trade Comm'n*, 612 F.2d 546, 553, 204 U.S.P.Q. 276 (C.C.P.A. 1979); *Splendor Form Brassiere, Inc. v. Rapid-Am. Corp.*, 187 U.S.P.Q. 151, 156 (S.D.N.Y. 1975).

⁸⁸ *Leinoff v. Louis Milona & Sons, Inc.*, 726 F.2d 734, 746, 220 U.S.P.Q. 845 (Fed. Cir. 1984) (Nies, J., dissenting); *In re Sneed*, 710 F.2d 1544, 1551, 218 U.S.P.Q. 385 (Fed. Cir. 1983); *Famolara, Inc. v. Edison Bros. Stores, Inc.*, 525 F. Supp. 940, 948-49, 211 U.S.P.Q. 562 (E.D. Cal. 1981).

dence will be greatly weakened if it can be shown that it was later followed by flagging interest in and success of the claimed invention.⁸⁹

An example of a reasonably well presented commercial success case is *Panduit Corp. v. Dennison Manufacturing Co.*⁹⁰ in that case, Panduit demonstrated the substantial commercial success of its patented one-piece cable ties to the tune of fifty million dollars worth of annual sales comprising 50% of Panduit's total profits and 80% of its total cable tie sales. Panduit then went on to demonstrate that a staff of Dennison engineers and designers unsuccessfully attempted for ten years to develop a successful one-piece cable tie, only to give up and copy Panduit's product. Dennison was not successful in the marketplace until it introduced its copied version of Panduit's cable-tie, after which Dennison became the second or third largest one-piece cable tie supplier in the marketplace. Dennison's copying, followed by its own commercial success, convinced Judges Markey, Cowen and Newman of the nexus between Panduit's commercial success and the claimed invention. The lower court's holding of invalidity was reversed.

Another good example is *Stevenson v. United States International Trade Commission*,⁹¹ a case involving a patent directed to a skateboard with an inclined foot depressible lever at the rear of the platform (a so-called "kicktail" skateboard). The patentee demonstrated achievement of 90–95% of the skateboard market by his kick-tail skateboard, and further demonstrated the requisite nexus by means of affidavits of skateboard users and a survey of members of a skateboard racing association indicating a definite preference for patentee's kicktail skateboard because of the advantages gained by the inclined lever. Judge Baldwin, writing for a panel also comprising Judges Markey, Rich, Miller and Watson, was impressed with this straightforward combination of commercial success and industry recognition. The Court was unimpressed with the biased testimony of the challenger's only opinion witness who summarily testified that the commercial success was due to cosmetics rather than the inventive features.

Yet another good example is *In re Sernaker*.⁹² Judges Nichols, Davis and Cowen were greatly influenced by applicant's affidavit evidence of the commercial success of his multi-color emblem and

⁸⁹ *Weather Eng'g Corp. of Am. v. United States*, *supra* note 85, 204 U.S.P.Q. at 46.

⁹⁰ *Supra* note 78, 774 F.2d at 1099–1100.

⁹¹ *Supra* note 87, 612 F.2d at 553–54.

⁹² *Supra* note 79, 702 F.2d at 996–97.

emblem embroidering method as practiced by numerous licensees, and of the revitalization of a once depressed industry upon introduction of applicant's emblem and embroidering method. The evidence of industry recognition through licenses, and the revitalizing effect of the invention, clearly provided the necessary nexus between the commercial success and the claimed invention.

Not unlike *Panduit*, *Stevenson* and *Sernaker*, the patentee in *Dennison Manufacturing Co. v. Ben Clements and Sons, Inc.*⁹³ did a marvelous job of fighting off the challenger's attempt to explain away commercial success as attributable to the patentee's dominant market position and aggressive advertising. The patentee demonstrated that its new "Super Swiftachments" (molded plastic retail sales tag clips with connected paddles) were in greater demand than the old clips with unconnected paddles despite the higher price of the new clips. The patentee relied upon customer inquiries, sales statistics and testimony of an industry witness to substantiate the demand for the new product over the old, thereby showing the nexus between the commercial success and the inventive features.

The above cases all have one point in common: the patentee in each case found a way to tie commercial success to the claimed features. Each patentee accomplished the feat not by simply overwhelming the court with financial data, but by placing the financial data in perspective in the context of the particular market at hand. Each patentee showed, albeit by different means, that the ultimate customers wanted the patented product or process because of the inventive features and the advantages flowing therefrom. Each patentee rendered it extremely difficult for the patent challenger to demonstrate otherwise.

Although evidence of commercial success is not essential to a holding of nonobviousness,⁹⁴ it is clear from the above discussion that courts, most notably the Court of Appeals for the Federal Circuit, consider it highly persuasive. Thus, it is important that the patentee present such evidence, where it exists, along with a strong showing of a nexus.⁹⁵ It is just as important that the patent challenger destroy

⁹³ 467 F. Supp. 391, 416-17, 203 U.S.P.Q. 895 (S.D.N.Y. 1979).

⁹⁴ See *supra* note 17.

⁹⁵ Commercial success anywhere in the world is relevant. *Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick Co.*, *supra* note 79, 730 F.2d at 1461; *Pacific Technica Corp. v. United States*, *supra* note 74, 217 U.S.P.Q. at 624. Special considerations apply to design patent cases, where the commercial success must be shown to be due to the design rather than to brand name recognition or functional features. *Litton Systems, Inc. v. Whirlpool Corp.*, 728 F.2d 1423,

such evidence by showing that such evidence is not due to the inventive features.

(To Be Continued)

1443, 221 U.S.P.Q. 97 (Fed. Cir. 1984); *A & H Mfg. Co. v. Contempo Card Co.*, 576 F. Supp. 894, 900, 221 U.S.P.Q. 67 (D.R.I. 1983).