

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

<p>VISUAL SECURITY CONCEPTS, INC., Plaintiff,</p> <p style="text-align:center">v.</p> <p>KTV, INC., et al., Defendants.</p>	<p style="text-align:center">CIVIL ACTION NO. 98-4921</p>
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MEMORANDUM & ORDER

Katz, S.J.

September 5, 2000

Before the court is defendant KTV, Inc.'s motion for summary judgment as to the invalidity of certain claims in plaintiff's patents. This motion is joined by an additional defendant, American Institutional Supply, Inc. As the court finds that the claimed inventions were obvious in light of prior art, the motion will be granted.

I. Background

Plaintiff Visual Security Concepts, Inc., (VSC) sells a variety of clear-cabinet products to prisons and correctional institutions. Apparently, inmates display considerable ingenuity in hiding contraband, including weapons and drugs, inside electronics devices. The clear cabinet enables prison personnel to inspect a product's interior without dismantling the entire item, a time-consuming and sometimes destructive endeavor. It is important to stress that the plaintiff does not purport to patent the electronics devices themselves: the patents address only modifications of these devices. For example, VSC's television appears identical to a "traditional" television except that its back cabinet is transparent, enabling the viewer to see into its interior. Nor does the plaintiff patent the actual materials used to manufacture the clear cabinets, which are polycarbonate, polystyrene, ABS, and acrylic. The patented claims described

subsequently pertain primarily to the qualities of these cabinets, such as safety features, the presence of ultraviolet (UV) blockers, and the degree of transparency.

On September 15, 1998, the United States Patent Office issued U.S. patent number 5,806,970 (the '970 patent) for a "Visionary Cabinet for Commercial Television Set" to Anthony and Dorothy Giorgianni, who assigned that patent to VSC. On that same day, VSC brought suit against defendant KTV, alleging willful infringement of two claims. In July 1999, the court placed this case in civil suspense pending the February 29, 2000, issuance of a second patent, number 6,030,097 (the '097 patent), for a "Cabinet for Commercial Electronics Unit." When the case resumed active status, VSC filed an amended complaint alleging willful infringement of claims 1-4, 7-11, and 15-17 of the '970 patent and claims 1-8 of the '097 patent.¹ KTV now moves for summary judgment, arguing that the allegedly infringed claims are invalid as anticipated and/or obvious under sections 102 and 103 of the Patent Act. As the court rules on the basis of obviousness, it does not resolve the question of anticipation.²

¹The first complaint also alleged tortious interference with present and prospective contractual relations. The second complaint added allegations of commercial disparagement and civil conspiracy and named three new defendants, one of which, Korea Electronics Company, has been dismissed for lack of personal jurisdiction.

²VSC suggests that KTV's motion must be denied because it did not seek invalidation of every claim in VSC's patents. This is simply incorrect. See, e.g., Jervis B. Webb. Co. v. Southern Sys., Inc., 742 F.2d 1388, 1398-1400 (Fed. Cir. 1984).

II. Obviousness³

By statute, a patent is presumed valid, and that presumption may be overcome only by clear and convincing evidence. See 35 U.S.C. § 282; Ryko Mfg. Co. v. Nu-Star, Inc., 950 F.2d 714, 716 (Fed. Cir. 1991); Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1050 (Fed. Cir. 1988). This court is not bound by the patent examiner's findings, but the examiner is entitled to some deference, particularly when the prior art that allegedly invalidates the patent was before him or her. See, e.g., Indian Head Indus. v. Ted Smith Equip. Co., 859 F. Supp. 1095, 1099 (E.D. Mich. 1994); see also id. (“[T]he Examiner’s decision is ‘evidence the court must consider in determining whether the party asserting validity has met its statutory burden by clear and convincing evidence.’ ” (quoting Fromson v. Advance Offset Plate, 755 F.2d 1549, 1555 (Fed. Cir. 1985))).

A patent is invalid for obviousness if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103. There are four factors in the “obviousness” test: “(1) the scope and content of the prior art; (2) the differences between the claims and the prior

³Summary judgment is appropriate “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.” Fed. R. Civ. P. 56(c). The moving party has the burden of demonstrating the absence of any genuine issue of material fact. See Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986). All evidence and reasonable inferences drawn therefrom are construed in favor of the non-moving party; similarly, if the evidence conflicts, the court must accept as true the allegations of the non-moving party. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986); see also, e.g., Continental Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 1265 (Fed. Cir. 1991) (noting that these standards apply to patent litigation).

art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations, if any, of nonobviousness.” Uniroyal, 837 F.2d at 1050; see also Graham v. John Deere Co., 383 U.S. 1, 17 (1966) (establishing these factors). Secondary considerations may include “commercial success, long felt but unsolved needs, [and] failure of others[.]” Graham, 383 U.S. at 17.

An invention may be obvious even if there is no single prior art reference that contains every element of the claimed invention. See Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548 (Fed. Cir. 1983); LNP Eng’g Plastics v. Miller Waste Mills, 77 F. Supp.2d 514, 556 (D. Del. 1999). However, before finding an invention obvious based on a combination of more than one reference, the court should determine whether “ ‘there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.’ ” In re Beattie, 974 F.2d 1309, 1311 (Fed. Cir. 1992) (quoting Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 1462 (Fed. Cir. 1984)). Put another way, the court must consider whether or not the prior art provides a “suggestion or motivation to make such a combination.” Heidelberger Druckmaschinen v. Hantscho Commercial, 21 F.3d 1068, 1072 (Fed. Cir. 1994); see also In re Jones, 958 F.2d 347, 351 (Fed. Cir. 1992) (same). This inquiry should be made based on the “state of knowledge at the time the invention was made” and from the viewpoint of “the hypothetical person of ordinary skill in the field of the invention.” In re Raynes, 7 F.3d 1037, 1039 (Fed. Cir. 1993). However, “the law does not require that the references be combined for the reasons contemplated by the inventor.” In re Beattie, 974 F.2d at 1312.⁴

⁴Hindsight is not equivalent to obviousness; i.e., the “motivation to combine references can not come from the invention itself.” Heidelberger, 21 F.3d at 1072.

“The ultimate determination of obviousness is a legal conclusion, resting on factual determinations under 35 U.S.C. § 103.” Lamb-Weston, Inc. v. McCain Foods, Ltd., 78 F.3d 540, 543 (Fed. Cir. 1996). That is, if there is no genuine issue regarding the underlying facts, obviousness is purely a question for the court.

III. Application of the Graham Factors

A. Prior Art

1. Scope

The prior art primarily comprises references that are within the field of the inventor’s endeavor. References that are not within the field of the inventor’s endeavor may also be relied on in patentability determinations, and thus are described as “analogous art”, when a person of ordinary skill would reasonably have consulted those references and applied their teachings in seeking a solution to the problem that the inventor was attempting to solve.

Heidelberger, 21 F.3d at 1071. The crucial issue in defining the scope of relevant prior art is the “nature of the problem confronting the would-be inventor.” Ryko Mfg., 950 F.2d at 716; see also In re GPAC Inc., 57 F.3d 1573, 1577 (Fed. Cir. 1995) (same); Heidelberger, 21 F.3d at 1072 (same). Here, the problem at hand is to adapt televisions and other consumer electronics products that meet ordinary manufacturing standards for use in correctional institutions, with particular attention to features enabling prison personnel to detect contraband inside the products. Consequently, prior art would be any art that speaks to these issues. The court does not, however, define the outer limits of what might be considered prior art, as the references submitted by the defendant clearly fall within these parameters.

2. Content of Relevant Prior Art

KTV discloses numerous references that it contends constitute relevant prior art. It is

unnecessary to discuss every reference, as the following are dispositive of the obviousness issue.

a. Prior Clear Cabinet Electronics Products

Although clear cabinet electronics products such as telephones, see Def. Ex. 11 (patent for a transparent telephone cover), have been known for many years, the most significant prior art references existing at the time of the claimed inventions are actual clear cabinet televisions or representations of such televisions.

The first reference is the so-called Brizendine television. This television has a clear cabinet made of polycarbonate with a UV blocker. See Def. Ex. 2 (opinion by Frank Bichard, stating that Brizendine television is made of polycarbonate and contains t-butyl phenol, a substance that is either a UV blocker or an antioxidant); Def. Reply Ex. B at 6 (expert report by Dr. Nauman stating that t-butyl phenol absorbs UV light).⁵ Gary Brizendine is the Program Administrator for the Texas Department of Criminal Justice. In that capacity, he determines what merchandise will be sold through the prison commissaries. See Def. Ex. 1 at 6-8 (Brizendine Dep.). He first saw this television in 1993 or 1994 when Bill Robbins of Sun International offered it for sale. See id. at 18-19; Def. Reply Ex. A ¶ 2 (Brizendine Decl.); see also Def. Reply to Surreply Ex. D at 20-21 (Robbins deposition stating that he offered a clear television to Brizendine in hopes of making future sales). According to Brizendine, Robbins explained that this five-inch model was a prototype and that his company simply wanted to demonstrate the cabinet's clarity. Although Brizendine decided not to purchase the televisions,

⁵VSC challenges this conclusion, see Response at 51-53, relying on the report of its own expert, Dr. Riad Gobran, who states that this cabinet does not completely block UV light. See Pl. Ex. 4. These conclusions are not inconsistent, however, and the court addresses the differing interpretations of "UV blocker" subsequently.

he testified that “the case proved to me that it would be adequate as far as hiding any contraband that we may find in one because it was very clear.” Id. at 22-23; see also Def. Reply to Surreply Ex. D at 24-25 (noting that model was a prototype that could have been sold had Brizendine wanted to make a purchase).

Robbins explained that the television he showed to Brizendine was manufactured by Gran Prix Electronics (GPX). See Def. Reply to Surreply Ex. D at 11, 25. Besides the Brizendine offer made by Bill Robbins, other customers of GPX offered these televisions for sale to correctional institutions. See Def. Ex. 7 (December 14, 1993, letter from Sommerlath and Associates, an independent sales representative of GPX and KTV, offering to sell GPX clear televisions to Access Catalog, Inc., a company that supplied consumer electronics products to prisons); Def. Ex. 8 at 25-28 (deposition from Mark DeRousse, an Access sales representative, testifying that he offered to sell the GPX television to the Texas Department of Corrections). GPX itself also sold clear televisions to a general market and advertised them in its 1990 and 1991 catalogs as the TVP 45C. See Def. Ex. 5 (GPX Catalogs advertising various “see thru” products, including a “see thru” television with a “see thru polystyrene cabinet”). Approximately 50,000 models were sold in all, see Def. Ex. 6 at 10 (Ron Richter Dep.),⁶ and the televisions were displayed at consumer electronics shows. See id. at 12-13.

Another company, Alaron, also sold a clear cabinet television, although one side of its back cabinet has an opaque panel. It is also made of polycarbonate and has a UV blocker. See Def. Ex. 2 (Bichard opinion). Although they are no longer available, Alaron sold approximately

⁶Richter is the Chairman of the Board and previous CEO of GPX. See Def. Reply Ex. C ¶ 1 (Richter Decl.).

6,700 televisions in the early 1990s. See Def. Ex. 3 at 11-12, 32 (Richard Stoewsand Dep.)⁷; Def. Reply Ex. D ¶¶ 2-3 (Stoewsand Decl.); see also Stoewsand Dep. Ex. G (Alaron catalog pages displaying television described as having a “clear see-through cabinet”). This television was also sold by one of Alaron’s customers, the Cook Brothers, under the name “Rhapsody.” See Def. Ex. 3 at 9; Def. Ex. 4 (Cook Brothers 1991-1992 catalog; including Rhapsody “Transparent Black and White TV”).

While VSC questions these televisions’ authenticity, these challenges do not raise a genuine issue of material fact. VSC does not seriously dispute that the samples of the Brizendine/GPX televisions⁸ are polycarbonate, but it stresses that the catalog describes the GPX product as “polystyrene.” See Def. Ex. 5 (GPX catalogs previously cited). From this, VSC suggests that the Brizendine/GPX televisions produced by KTV as exhibits in this action are not the same as the televisions that were displayed or sold in the early 1990s. In support, VSC relies on Gary Hubbard, whose company, Thomson Consumer Electronics, Inc, is VSC’s licensee. See Plf. Ex. 30 (D. Giorgianni Aff.). Hubbard believes the GPX television was likely to have been made of polystyrene because of high costs and production problems associated with polycarbonate.⁹ See Plf. Ex. 13. However, Brizendine submitted a declaration attesting that the

⁷Stoewsand is Alaron’s Vice-President of Operations. See id. at 9-10.

⁸VSC considers them together, as they were both made by GPX.

⁹On this point, the plaintiff also offers Bill Robbins’ affidavit stating that he “believe[s]” the GPX television to have been made of polystyrene or ABS. Plf. Ex. 22 ¶ 2. Mr. Robbins’ later deposition testimony clearly states, however, that he did not have personal knowledge of this fact and that he believes GPX itself to be in a better position to discuss the television set’s composition; he also notes that the television could have been made of polycarbonate. See Def. Reply to Surreply Ex. D at 26-27, 33-35. The court also acknowledges Mr. Robbins’ desire to distance himself from his earlier affidavit. See Def. Reply Ex. G (June 23, 2000, letter from

sample he submitted was the same item he had been given by Robbins in 1994; he notes specifically that, as was his practice, he so marked the television, that he did not modify the television, and that it has been in his custody continuously. See Def. Reply Ex. A; see also id. Ex. E ¶ 1 (declaration by Benjamin Leace stating that the television submitted to the court was the one supplied by Brizendine). Similarly, Richter attested that the GPX television marked Richter 8 was produced by GPX in the early 1990s and suggests that the catalog designation of polystyrene was simply incorrect. See Def. Reply Ex. C. Given these declarations and Hubbard's lack of personal knowledge, there is simply not a genuine issue of material fact on the authenticity of these televisions.

With reference to the Alaron/Rhapsody televisions, VSC contends that there is a genuine dispute based on Stoewsand's statement that the televisions do not have their original panels. See Plf. Ex. 20 at 23-24, 26, 35-36. Stoewsand's supplemental declaration states, however, that Alaron routinely purchased spare parts for its televisions, that such spare parts would have been purchased between 1990 and 1992, and that any repair would have been made with replacement parts originally ordered with the television or cannibalized parts from the same type of television. He explained that there were no records of orders for any special cabinet parts for these televisions and that the replaced cabinets are identical to those on the televisions sold by Alaron between 1990 and 1993. See Def. Reply Ex. D. Stoewsand's deposition and declaration simply do not create a genuine issue of material fact as to the authenticity of the Alaron/Rhapsody

Robbins expressing displeasure with the affidavit); Plf. Surreply Ex. B (June 9, 2000, letter from plaintiff's counsel acknowledging disagreement); Def. Reply to Surreply Ex. D at 27 et seq. (deposition testimony exploring bases for disagreement).

televisions.¹⁰

In addition to these televisions, the parties agree that the patent examiner in the '970 patent relied on the "TeeVee Toons reference," and the court finds that this is also relevant prior art. Mrs. Giorgianni's declaration to the patent examiner described this as a "television-like unit shown on the cassette album cover, for a cassette tape sold by TeeVee Toons," although she distinguished it on various bases discussed subsequently. See Plf. Ex. 1 (D. Giorgianni Decl. ¶ 4); see also Def. Ex. 24 (catalog pages showing color picture of this reference). This reference is significant as the patent examiner specifically found that it appeared to have near 100 percent transparency and rejected some claims relating to transparency on this basis. See Def. Ex. 39 (Patent Examiner's Amendment at 2).

b. Prior Textbooks and Secondary Literature

KTV refers to several sources addressing plastics composition and use. The court concludes that these texts are relevant prior art, as they describe the properties and application of the four plastics used in the claims, polycarbonate, polystyrene, ABS, and acrylic. At the very least, they constitute analogous prior art, as an ordinary practitioner of the art would have consulted these texts.

The first is Volume 45, Number 1A of the Modern Plastics Encyclopedia (1968) (Def. Ex. 16). This text notes, "Polycarbonates are distinguished by their unique combination of properties, especially high heat resistance and dimensional stability, as well as high impact

¹⁰Even if there had been a genuine issue as to the televisions' authenticity, this would not have altered the fact that KTV presented uncontested catalog pages and various declarations demonstrating that clear cabinet televisions had been offered to sale in the Texas prison system several years before the patents at issue here and that clear televisions were generally on the market.

strengths and good . . . electrical characteristics. Polycarbonates . . . are available in transparent, translucent, and opaque colors.” Id. at 217. It specifically notes that polycarbonate is available in UV stabilized grades, see id., which are recommended to minimize yellowing. See id. at 218. Polycarbonate is “primarily known for its superior toughness, dimensional stability, transparency, self extinguishing characteristics, and thermal stability,” id. at 217, as well as for “its good electrical properties.” Id. at 218. This text also notes that polycarbonate’s “high degree of toughness combined with good transparency has helped push the ‘see-through’ trend into electrical parts.” Id. at 219; see also id. (noting that electrical and electronics equipment is one of four major areas in which polycarbonate is widely used).

The second text is Engineering Thermoplastics, Properties and Applications (James Margolis, ed., 1985) (Def. Ex. 18). This text refers to the use of polycarbonate with UV stabilizers and flame retardants in electrical equipment, including cathode ray tube housings, see id. at 37, and emphasizes that polycarbonate is widely used in electrical and electronic products because of its “high-impact strength, flame retardance, and good electrical properties.” Id. at 38. With reference to such products, the text states that polycarbonate is “specified for transparent windows, bezels, and doors in televisions and for portable professional tape recorder housings.” Id.

The third source is Volume Eleven of the Encyclopedia of Polymer Science and Engineering (1988) (Def. Ex. 18). This text states that polycarbonate has increased its market share because of its “unique combination of properties, including transparency, heat-distortion resistance, toughness and electrical properties. A variety of new applications have been created by tailoring the base polycarbonate polymer with modifications that enhance the end-use

properties of the polymer.” Id. at 648. In addressing polycarbonate’s optical qualities, it also notes that “colorless, transparent grades have a light permeability of 89% in the visible range. In contrast, uv light is absorbed, and causes yellowing and a reduction in the impact strength; uv stabilizers should be used.” Id. at 657;see also id. at 662 (noting need for UV stabilizers). Like the other texts, this source explains, “Polycarbonates are suitable for electrical devices because of their electrical-insulating properties, which are independent of environmental conditions; their fire-retardant properties; high heat-distortion resistance and impact strength; and transparency and dimensional stability.” Id. at 671. Of particular importance is the following statement: “Transparency is frequently important in electrical applications that may be visually inspected, and clear transparent polycarbonate sheeting is used for covers.” Id.

Finally, the Handbook of Plastic Materials and Technology (Irvin Rubin, ed., 1990) (Def. Ex. 19), describes polycarbonate as having a transmittance rating of 86-89 percent and recommends that UV stabilizers be used in outdoor applications. See id. at 255. It also explains that

[i]ncreasingly sophisticated electrical and electronic products, plus demanding UL standards, have expanded polycarbonate’s fit in this market. Nonbrominated, flame-retardant grades are particularly suitable because of their processing stability, UL 94 V-O and 94-5V ratings, oxygen index of 35, low smoke emission, and elimination of corrosive gases. Housings and internal parts of printers, copiers, terminals, and other computer and business equipment, as well as telephone connectors, circuit boards, wiring blocks, and other industrial components, are often molded of polycarbonate.

Id. at 256;see also id. at 259 (describing flame retardant and UV stabilized grades).¹¹ The

¹¹According to the same text, ABS has transparent grades with a light transmission of 80-87 percent, and UV stabilizers may be added. See id. at 30 (Def. Ex. 20). Also, polystyrene transmits visible light at 88-91 percent, and UV stabilizers are recommended. See id. at 471 (Def. Ex. 21). Polystyrene is particularly used in electrical devices because of its dielectric

references to the UL standards are particularly important. The Underwriters Laboratories has established safety standards for various products, including television receivers and high-voltage video products, known as UL 1410. See Def. Ex. 22. This standard includes flammability classifications which are to be determined by tests described in UL 94. See id. These references strongly suggest that these plastics were contemplated for use in consumer electronics products.¹²

c. Other Inventions Incorporating Tamper Resistant Screws

Prior art has also utilized tamper resistant screws. Specifically, Brizendine's deposition states that the Texas corrections systems purchased clear clock radios from Bill Robbins with

properties. See id.

¹²KTV also submits numerous patents. In many situations, these patents would be the crucial prior art references for obviousness purposes. In this case, however, the patents are important primarily in demonstrating that the qualities of the plastics described in plaintiff's patents were well-known to practitioners in the art. Specifically, the Lindvay patent for "poly(brominated phenylene oxide) and flame-retarded high impact polystyrene composition" describes a flame-retarded polystyrene with specific reference to use in television cabinets; it notes that flame-retardant qualities are necessary to comply with UL 94. See Def. Ex. 23 at col. 1, lines 28-36 (U.S. Patent 4,341,890, issued July 27, 1982). Although not specifically described as being used in television cabinets, the Mark patent for "flame retardant polycarbonate composition" and the Lewis patent for "substantially transparent flame retardant aromatic polycarbonate compositions" similarly make reference to the UL Standard 94. See Def. Ex. 26 at col. 1, lines 13-25 (U.S. Patent 3,951,910, issued Apr. 20, 1976); Def. Ex. 36 at col. 1, lines 19-26 (U.S. Patent 4,954,549, issued Sept. 4, 1990).

Other patents describe the plastics used in the challenged inventions in conjunction with UV stabilizers and flame retardants. The Margotte patent for "polymers and copolymers based on alkenoyl-oxybenzylidene-malonic esters as UV-absorbers and polymers stabilized therewith" teaches the use of UV-absorbers in transparent polycarbonate. See Def. Ex. 34 at col. 1, lines 13-33 (U.S. Patent No. 3,943,094, issued Mar. 9, 1976); see also See Def. Ex. 35 (U.S. Patent 5,242,744, issued Sept. 7, 1993) (Schryer patent for "silicone flame retardants for thermoplastics").

Finally, International Patent 95/19090 describes an "oversize electromagnetic emission shield for video display devices." Def. Ex. 25 (patent issued July 13, 1995). This patent describes a polycarbonate covering surrounding a video display terminal, see id. at 9, and notes that the polycarbonate can be molded in such a way that it is itself a cabinet containing the product's interior components. See id. at 10, 13.

such screws in the early 1990s, see Def. Ex. 1 at 26-27, and KTV itself sold opaque cabinet televisions with tamper resistant screws in 1993-1994. See Def. Ex. 13 (Access catalog pages describing tamper resistant screws for televisions sold to correctional institutions).

3. Prior Art Disclosed to the Examiner¹³

The first application did not disclose the clear televisions, any of the textual references, or any of the described patents. Mrs. Giorgianni's declaration to the patent examiner included the TeeVee Toons reference but stated that it had a tinted case made in at least two pieces and that a view of its contents would have been obstructed. See Plf. Ex. 1 (D. Giorgianni Aff.). Also, the court notes, as did Mrs. Giorgianni, that this item was apparently not a real television; rather, it seems to have been a prop made for the cassette tape art. See id.; see also Def. Ex. 24 (catalog pages showing TeeVee Toons reference). Notwithstanding these distinctions, the patent examiner rejected certain transparency claims based on the TeeVee Toons art: "TeeVee Toons reference clearly teaches a television set with transparent casing. Television cabinet features, such as vent holes or slots, were well-known to those of ordinary skill in the art at the time the invention was made." Def. Ex. 39 (Patent Examiner's Amendment at 3); see also id. at 2 (rejecting transparency claims).

The patent examiner ultimately allowed the patented claims because he was

¹³While it is always the defendant's burden to prove invalidity by clear and convincing evidence, the presentation of new prior art not disclosed to the patent examiner may "so clearly invalidate a patent that the [defendant's] burden is fully sustained merely by proving its existence and applying the proper law[.]" American Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1359-60 (Fed. Cir. 1984). Moreover, presentation of such new prior art may "eliminate, or at least reduce, the element of deference due the PTO, thereby partially, if not wholly, *discharging* the attacker's burden, but neither shifting nor lightening it or changing the standard of proof." Id. at 1360. The court does not understand KTV to suggest otherwise.

unable to locate a combinable reference containing subject matter relating to thermoplastic transparent materials used to form a back panel for a television set cabinet where the material: (1) has high dielectric properties and is highly flame retardant; (2) includes a UV blocker; and/or (3) is selected from the group of polycarbonate, acryl[ic], ABS, and polystyrene.

Id. at 3.¹⁴

The Giorgiannis did disclose the Mark patent as well as the existence of the GPX and Alaron televisions in the declaration submitted with the second patent; specifically, the claimants included catalog pages and photographs. See Def. Ex. 2 (D. Giorgianni Decl. ¶ 13) (describing Mark patent, noting that it did not refer to transparent polycarbonate); id. at ¶ 16 (explaining that the Rhapsody/Alaron catalog described its television as a “4.5 transparent black and white TV”); id. ¶¶ 20-21 (describing GPX television as a “see through electronics consumer good[]” having a “ ‘see thru polystyrene cabinet’ ” based on catalog). With reference to the televisions, Mrs. Giorgianni stated,

It is my opinion, as a designer of security cabinets for electronic goods including such cabinets for televisions, and as a reseller of consumer electronic goods manufactured by others, and one who has had information on the safety aspects of such goods, that the case structure shown in the catalogs Exhibits M and N, and the Exhibits O and P,¹⁵ would not have been allowed to have been marketed in the United States in 1990, 1991 or thereafter. I know the safety requirements for consumer electronics goods approved for sale in correctional institutions. Such requirements are more strict than those for the general market place. It is my opinion that this case is unsafe and would not have passed Underwriters Laboratory approval, nor would it have passed the U.S. Consumer Products Safety Commission review for general sale. It certainly would never have been approved for use in prisons.

¹⁴The examiner also discussed his inability to find a reference pertaining to one of the claims that is not at issue in this case.

¹⁵Exhibits M and N refer to the GPX catalogs; exhibits O and P refer to photographs of the television.

Id. ¶ 25.

The court concludes that the disclosure of the televisions does not alter the obviousness inquiry. First, the patent examiner did not, as does this court, have the benefit of physical examination of the televisions or analyses of their compositions. Second, the televisions' significance as prior art becomes much clearer when they are considered in conjunction with the prior texts and the other patents; as discussed in more detail subsequently, these other references provide the combination that the patent examiner sought but could not find. Third, the examiner did not know that the Brizendine television had been offered for sale in the Texas prison system or that other GPX customers had made similar offers.

B. Differences between Prior Art and the Claimed Invention

In addressing the differences between prior and present art, the court must first interpret any disputed claims in the plaintiff's patents. This is always a question for the court rather than for the jury. See Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996). Although most of the claims in these inventions speak for themselves, the briefs and the hearing revealed that the parties disagree on the significance of certain terms. In particular, VSC interprets some terms in a manner that would arguably, although not necessarily, exclude some of the prior art.

“In construing the claims of a patent, a court should consider the claim language, the specification, and, if offered, the prosecution history, which are collectively considered intrinsic evidence of the meaning of the claim terms.” Katz v. AT&T Corp., 63 F. Supp.2d 583, 589 (E.D. Pa. 1999). Only rarely should the court consult extrinsic evidence, including expert testimony. See id. In this case, there is no need to look beyond the intrinsic evidence.

The first term at issue is “visionary.” This term is found in claims 1 through 4 and 7 of

the '970 patent and in all eight claims of the '097 patent. The plaintiff attempts to distinguish transparency and visionary, suggesting that transparency refers to the quality of the material (i.e., one can see through it), while visionary refers to what can actually be seen (i.e., the interior of the cabinet). After stating that “ ‘visionary’ means enabling visualization,” the plaintiff’s expert explains, “Visionary differs from transparency. For example, my eye glasses are transparent, but they are ground in accordance with a prescription for me, so if another wears them they may not be visionary for that person; may not enable visualization for that person.” Plf. Surreply Ex. ¶ 6 n.1 (opinion of Dr. John Knoble).

The patents themselves describe “visionary” much more plainly:

The present invention is directed to an enhanced security level television cabinet for correctional institutions. Specifically it is directed to a visionary, i.e., visual inspection or transparent, replacement back panel for the cabinet of a commercially available television set which will readily facilitate a visual inspection of the interior of the cabinet, at any time, without the opening of the cabinet.

'970 Patent, Background, col. 1, lines 8-14; '097 Patent, Background, col. 1, lines 8-14. That is, the patent itself conflates visionary with transparent. Given that the clear meaning of the term is in accordance with the claim language, there is no need to examine extrinsic evidence in the form of an expert report, assuming arguendo that the court accepted Dr. Knoble as an expert on this subject. See, e.g., Katz, 63 F. Supp.2d at 592 (“ ‘Indeed, where the patent documents are unambiguous, expert testimony regarding the meaning of a claim is entitled to no weight.’ ” (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1584 (Fed. Cir. 1996))). This conclusion also disposes of the plaintiff’s contention that the court must draw a distinction between the prior art and the claimed inventions based on some distinction between those

portions of the prior art that are “merely” transparent as opposed to visionary.

Plaintiff also argues that claim one in the ‘970 patent requires that the cabinet’s “entire” interior and contents be seen, see Plf. Resp. at 26; the defendant contends that the plaintiff is impermissibly importing numerical qualifiers into a general claim.¹⁶ Plaintiff derives its interpretation from the claim language’s unqualified description of a cabinet permitting a view of the television’s interior: VSC states that this means that “the entire interior of the cabinet and all its contents are viewable through the visionary surfaces; 100 percent of the interior is viewable.” Id. at 27-28. This interpretation is supported by the patent documents, which emphasize the need for viewers to examine the “interior of the cabinet, at any time, without the opening of the cabinet.” ‘970 Patent, col. 1, lines 9-11, ‘097 Patent, col. 1, lines 13-14; see also ‘970 Patent, col. 1, lines 54-57, ‘097 Patent, col. 1, lines 56-59 (“The visionary substitute back panel includes transparent viewing panes sufficient in size and placement to enable a security inspection of the entire interior of the television cabinet, without opening it.”). However, this language does not

¹⁶Claim one reads:

1. A visionary cabinet for a commercial television set having a back panel and a front panel, comprising:

visionary surfaces in said cabinet providing a view of the interior of said cabinet and the contents thereof wherein said visionary surfaces are positioned to cumulatively cover various viewing angles into the interior of the cabinet;

wherein said visionary surfaces are included in said cabinet back panel; and

wherein said back panel is molded of thermoplastic transparent material which has dielectric properties and is flame retardant.

‘970 Patent. Also, the analysis of claim one would apply equally to other claims in patent ‘970 incorporating it, such as claim seven. It also applies to similar claims in the ‘097 patent, such as claim one. See Plf. Resp. at 42-43 (explicitly applying arguments regarding the ‘970 patent’s claim one to the ‘097 patent’s claim one).

require that a viewer be able to see the entire interior from any angle. In fact, the claim specifically states that the visionary cabinet must provide “a view” into the interior of the cabinet and that various angles “cumulatively” should permit examination of the interior.¹⁷ Thus, prior references that may have some obstructions (as, indeed, does the plaintiff’s own television) are not excluded.

Finally, the parties apparently disagree about the meaning of the term “UV blocker,” found in the ‘970 patent’s claims 2 and 8 and the ‘097 patent’s claims 1, 7, and 8. Although the plaintiff’s response to the motion for summary judgment simply stated, for example, that the court should interpret patent ‘970’s claim eight as “the back panel includes a UV blocker,” Plf. Resp. at 37,¹⁸ VSC now argues that one hundred percent of UV light must be blocked. The plain

¹⁷On a related issue, the plaintiff states that the Brizendine, Alaron, and GPX televisions are not prior art based on its argument that “transparency” means “visibleness.” VSC refers to Dr. Gobran’s supplemental report, which contends that “the percentage of visible surface areas for [the Alaron, GPX, and Brizendine sets] are less than 70%.” Plf. Ex. 4. Dr. Gobran defines “visible” as “the clear, distinct, unobstructed viewing area without gro[o]ves, raised letters or other obstructions which hinder viewing any of the internal contents of the televisions,” *id.*, and concludes that the televisions, respectively, have 14, 24, and 10 percent of “visible surface area made of clear thermoplastic material.” *Id.* From this, VSC argues that these televisions are not transparent enough to qualify as prior art. There is simply no support for any such interpretation, as it merely restates plaintiff’s earlier contention that, to qualify as prior art, the television’s interiors would have to be absolutely visible from all perspectives. This ignores the claim language described above which merely requires that the viewer “cumulatively” be able to see the interior; it also ignores the fact that, as the patent examiner noted, items such as grooves and vents are standard features. Moreover, the court may not read numerical qualifiers into general claims. *See, e.g., Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1249-50 (Fed. Cir. 1998); *Bell Communications v. Vitalink Communications*, 55 F.3d 615, 619-20 (Fed. Cir. 1995).

¹⁸Claim eight states:

8. The cabinet of claim 7 wherein said cabinet back portion is a cabinet back panel of a single piece of thermoplastic transparent material, and wherein said thermoplastic transparent material includes therein a UV blocker.

‘970 Patent.

language of the claim simply states, however, that a UV blocker must be included, and the background justifies this both as a safety measure to prevent sparking and to prevent yellowing. See ‘970 Patent col. 1, lines 41-44; ‘097 Patent col. 1, lines 44-48. As VSC itself stresses, it would be improper for the court to add a numerical qualifier to general language. See, e.g., Renishaw PLC v. Marposs Societa’ per Azioni, 158 F.3d 1243, 1249-50 (Fed. Cir. 1998); Bell Communications v. Vitalink Communications, 55 F.3d 615, 619-20 (Fed. Cir. 1995).

With these terms addressed, the court now compares the claimed inventions to the prior art. Patent ‘970’s claims one through four describe a visionary back cabinet for a television that provides a view of the cabinet’s interior and its contents; the visionary surface is positioned to allow the viewer to see the interior from various angles. The visionary back panel must be made of a thermoplastic material, which may be polycarbonate, acrylic, ABS, or polystyrene, that is at least 90 percent transparent and that has dielectric properties, flame retardants, and a UV blocker.¹⁹ Claims seven through nine reiterate claims one through four but add the description of a back cabinet made of a “single piece” of specified thermoplastic material.²⁰ Claim ten states

¹⁹2. The visionary cabinet of claim 1, wherein said thermoplastic transparent material includes therein a UV blocker.

3. The visionary cabinet of claim 2, wherein said thermoplastic transparent material is visionary to 90 percent transmission or greater.

4. The visionary cabinet of claim 3, wherein said thermoplastic transparent is a molded material is selected from the group of: polycarbonate, acrylic, ABS, and polystyrene.

‘970 Patent.

²⁰7. A cabinet for a commercial television set, said cabinet having a cabinet back portion and a front portion, said front and back portions of the cabinet surrounding and holding the component contents of said television set, comprising:
a visionary surface in said cabinet back portion, wherein said visionary surface permits viewing through said cabinet back portion to reveal views of the interior of said cabinet and the

that the material that is at least 90 percent light transmitting must comprise at least 70 percent of the cabinet's back panel, and claim eleven describes a cabinet made only of polycarbonate.²¹ The final three disputed claims describe three potential cabinets: the first requires a cabinet made at least partially of transparent polycarbonate with a light transmission of at least 90 percent; the second requires a back panel to be made "substantially" of polycarbonate that has light transmission of at least 97 percent; and, finally, the third requires a back panel made entirely of polycarbonate with a light transmission of at least 99 percent.²²

contents thereof; and

wherein the cabinet back portion is of a single piece of thermoplastic transparent material selected from the group of : polycarbonate, acrylic, ABS, and polystyrene.

8. The cabinet of claim 7 wherein said cabinet back portion is a cabinet back panel of a single piece of thermoplastic transparent material, and wherein said thermoplastic transparent material includes therein a UV blocker.

9. The cabinet of claim 7 wherein said cabinet back portion is a cabinet back panel of thermoplastic transparent material being of at least 90 percent light transmission.

'970 Patent.

²¹10. The cabinet of claim 9 wherein said 90 percent light transmission thermoplastic transparent material comprises at least 70 percent of the surface of said cabinet back panel.

11. The cabinet of claim 10 wherein said thermoplastic transparent material group is limited to polycarbonate.

'097 Patent.

²²15. A cabinet for a commercial television set, said cabinet having a back panel forming a portion of the cabinet surrounding the component contents of said television set, the improvement comprising:

said back panel being at least partially of transparent polycarbonate material having a light transmission of at least 90 percent.

16. The cabinet of claim 15 wherein said back panel is substantially of said polycarbonate material, and wherein said polycarbonate material has a light transmission of at least 97 percent.

17. The cabinet of claim 16 wherein said back panel is entirely of said polycarbonate material, and wherein said polycarbonate material has a light

The claims in '097 are almost identical to those of '970. Claims one and two describe a transparent cabinet for a commercial consumer electronics product that is structured to permit a viewer to see the contents of that cabinet. The cabinet itself must be of at least two pieces, and the cabinet panel must be a single piece of a "thermoplastic transparent material" which contains a UV blocker and a flame retardant.²³ Claims three and four require that the cabinet panel be made of material with 90 or 99 percent light transmission.²⁴ Only claims three and six include a specification notably different from those in the '970 patent: claim three requires that the cabinet panel be attached to the cabinet with tamper resistant screws, and claim six requires that the

transmission of at least 99 percent.
'970 Patent.

²³1. A visionary cabinet for a commercial consumer electronics unit forming an enclosure having an interior, whereof said visionary cabinet enclosure has at least two portions joined together and being capable of containing components contained therein, said visionary cabinet having a cabinet panel forming a portion of the visionary cabinet enclosure, comprising:

a plurality of surfaces in said cabinet panel, each surface having a respective viewing pane, said viewing panes each being transparent to reveal plural views of the interior of said cabinet and any components contained therein; and

wherein respective ones of said plural surfaces viewing panes meet at angles to adjacent viewing panes surfaces; and

wherein said cabinet panel is of a single piece of thermoplastic transparent material, and said thermoplastic transparent material includes therein a UV blocker.

2. The visionary cabinet of claim 1, wherein the cabinet panel, thermoplastic transparent material also includes therein a flame retardant.

'097 Patent.

²⁴4. The visionary cabinet of claim 1 wherein said thermoplastic transparent material is of at least 90 percent light transmission.

5. The visionary cabinet of claim 4 wherein said thermoplastic transparent material is of at least 99 percent light transmission.

'097 Patent.

portions of the cabinet be held together with tamper resistant screws.²⁵ Finally, claims seven and eight specifically describe a cabinet for a commercial consumer electronics unit, in which the viewing panel permits examination of the interior of the cabinet and its contents. This panel must be made of a single piece of polycarbonate, acrylic, polystyrene, or ABS that contains a UV blocker and has tamper resistant screws.²⁶

²⁵Claim three states, “The visionary cabinet of claim 1, wherein said cabinet panel is attached to said cabinet with tamper resistant attachment screws.” Similarly, claim six states, “The visionary cabinet of claim 1 also including tamper resistant screws wherein said visionary cabinet enclosure two portions are held together with said tamper resistant screws.”

²⁶7. A visionary cabinet for a commercial consumer electronics unit forming an enclosure having an interior, whereof said visionary cabinet enclosure has at least two portions joined together and being capable of containing components contained therein, said visionary cabinet having a cabinet panel forming a portion of the visionary cabinet enclosure, comprising:

a surface in said cabinet panel, said surface having a respective viewing pane, said viewing pane being transparent to reveal a view of the interior of said cabinet and any components contained therein;

wherein said cabinet panel is of a single piece of thermoplastic transparent material, and said thermoplastic transparent material includes therein a UV blocker; and

also including tamper resistant attachment means wherein said two portions of said visionary cabinet are held securely together with said tamper resistant attachment means.

8. A visionary cabinet for a commercial consumer electronics unit forming an enclosure having an interior, whereof said visionary cabinet enclosure has at least two portions joined together and being capable of containing components contained therein, said visionary cabinet having a cabinet panel forming a portion of the visionary cabinet enclosure, comprising:

a surfaces in said cabinet panel, said surface having a respective viewing pane, said viewing pane being transparent to reveal a view of the interior of said cabinet and any components contained therein;

wherein said cabinet panel is of a single piece of thermoplastic transparent material, and said thermoplastic transparent material includes therein a UV blocker;

also including tamper resistant attachment means wherein

All of the claims described in the two patents are found in the prior art. Both the Brizendine/GPX and the Alaron/Rhapsody televisions have back panels that allow an examination of the interior, both are made of polycarbonate, and both have UV blockers. In addition, the TeeVee Toons reference relied upon by the patent examiner discloses near one hundred percent transparency. The secondary sources describe characteristics of the plastics used in the inventions in great detail. The Modern Plastics Encyclopedia describes transparent polycarbonates, the use of UV blockers, and the application of polycarbonates in “see-through” products. Engineering Thermoplastics describes polycarbonates with the addition of UV stabilizers and flame retardants as having use in electrical equipment, particularly television doors. The Encyclopedia of Polymer Science describes polycarbonate as having 89 percent light permeability and indicates the need for UV stabilizers. It also describes the use of flame retardants and the use of polycarbonate in electrical products requiring visual inspection. The Handbook of Plastics Materials also describes polycarbonate as being 86-89 percent transparent, recommends UV stabilizers, and notes that it may be used to comply with UL standards. Finally, at least two prior references teach the use of tamper resistant screws: KTV televisions sold in 1993 and 1994 contained such screws, and Brizendine explained that clock radios with such screws had been sold to the Texas prison systems since the early 1990s.²⁷

said two portions of said visionary cabinet are held securely together with said tamper resistant attachment means; and wherein said single piece of thermoplastic transparent material is selected from the group of: polycarbonate, acrylic, AB[S] and polystyrene.

‘097 patent.

²⁷Also, the various patents describe polystyrene and polycarbonate products that are treated with flame retardants and UV stabilizers and that meet UL standards.

C. Ordinary Skill

This inquiry asks not what would have been “subjectively obvious to the inventor at the time of invention” but “what would have been objectively obvious to one of ordinary skill in the art at such time.” Ryko, 950 F.2d at 718. In this case, VSC does not challenge KTV’s contention that the level of skill disclosed in the prior art is “easily grasped” and not beyond that of an ordinary layperson of “average intelligence.” Def. Mot. at 32 (citation omitted). The court agrees with this assessment, particularly as the claimed invention does not speak to the design of the television’s electrical components or to the methods of making the transparent thermoplastic used for the cabinet. The court also notes that there has been no assertion that either of the inventors, Anthony and Dorothy Giorgianni, possessed any particular skill beyond that of a layperson. See, e.g., Plf. Ex. 15 at 94 (deposition of Anthony Giorgianni stating that he is not a chemist but that he knows the preferred uses, generally, for particular types of plastics; stating that he wanted a “safe, clear, strong, heat resistant” product that would not “discolor”; “I gave those points to John Simkanich[, patent attorney], and Gary Hubbard. They came up with the best product.”).

D. Secondary Considerations

VSC relies most heavily on secondary considerations in defending its inventions against a finding of invalidity for obviousness. These secondary considerations are useful in demonstrating that a seemingly minor technical variation may create a “non-obvious” invention: “[W]hen differences that may appear technologically minor nonetheless have a practical impact, particularly in a crowded field, the decision-maker must consider the obviousness of the new structure in this light.” Continental Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 1273

(Fed. Cir. 1991). These secondary considerations are also evaluated by an objective standard and “are a useful guide in determining how a person of ordinary skill in the field would have viewed the patented invention at the time the invention was made.” Heidelberger, 21 F.3d at 1072. An argument that an invention is ordinary or obvious “carries diminished weight when offered by those who had tried and failed to solve the same problem, and then promptly adopted the solution that they are now denigrating.” Id.

VSC supports its claims of commercial success largely by reference to sales and potential sales by itself and KTV. See, e.g., Plf. Ex. 5 (KTV sales reports from October 1998 through April 2000); Plf. Ex. 7 (memo to KTV regarding priority of manufacturing clear televisions); Plf. Ex. 11 (KTV documents regarding sales to different states). VSC claims to have suffered approximately \$330,000 in damages, see Plf. Ex. 6 (expert report), and states that it has at least one licensee, although it does not provide a copy of such an agreement. See Plf. Ex. 30 (D. Giorgianni affidavit stating that Thomson is a licensee). VSC also notes that others, namely KTV, had difficulties in developing a clear television, see, e.g., Plf. Ex. 8, 9, 11; see also Plf. Ex. 10 at 67-69 (Bergen deposition on this matter), and suggests that KTV succeeded only after copying VSC’s design. Finally, VSC argues that its product filled a long-felt need in the prison industry, a claim supported largely by the affidavit of Daniel Kowalski, an individual who works part-time for VSC and full-time for the Pennsylvania prison system. See Plf. Ex. 18 (Kowalski deposition).

KTV raises several objections to these contentions, and it is true that there is some gap between the claimed secondary factors and the patented elements. See Ryko Mfg. Co., 950 F.2d at 719. It is clear, however, that the court could not resolve these matters without making factual

findings.

IV. Evaluation of the Primary and the Secondary Factors

The primary factors, taken together, establish by clear and convincing evidence that the claims at issue were obvious.

The GPX, Alaron, and Brizendine televisions are all television sets with a clear back cabinet of polycarbonate with UV stabilizers that permits a visual inspection of its interior. Although some of GPX's other customers attempted to sell its clear television to prisons, the Brizendine television is perhaps most significant, as it was actually offered for sale to a prison system and seen as a potentially useful product for limiting the ability of inmates to hide contraband inside its cabinet.

The other secondary sources, particularly the textbooks, are at least analogous art, as they speak directly to the properties of polycarbonate and other plastics that can be used to manufacture such a cabinet. The patent examiner stated that he was unable to find a combinable reference describing high dielectric properties, flame-retardance, and the use of UV stabilizers; these sources describe precisely those characteristics with reference to polycarbonate. Their relevance is even stronger when one considers that several sources specifically describe the utility of polycarbonate in making "see through" electronic products and describe the ability of these products to meet UL standards: that is, the suggestion that these products would be useful in electronic products was explicit.

Finally, tamper resistant screws had already been used in products sold in prisons for the precise reasons articulated by the plaintiff's patents.

The court also finds that these references are properly combined, as is necessary to any

finding of obviousness on the primary factors. Taken together, the prior art suggests to an individual involved in the problem of adapting traditional electronics products for use in a correctional institution the design of a product with a transparent cabinet that permits viewing of the interior and that contains such safety and design standards as flame-retardance, UV stabilizers, and tamper resistant screws. It is important to note that most of the challenged claims contained in the two patents simply describe the properties of the plastics used in the products, a fact that further supports combination of the prior art references.

The secondary factors do weigh in favor of VSC's position, as VSC has at least established a genuine issue of material fact regarding commercial success, long-felt need, and other considerations. However, taken as a whole, the primary factors are simply more weighty in this case. The plaintiff correctly stresses that the court may not ignore secondary considerations, see Ryko Mfg. Co., 950 F.2d at 719, but it is equally true that a plaintiff that prevails on the secondary considerations factor does not necessarily prevail on the larger question of obviousness. "[A] court is entitled to weigh all the considerations, primary and secondary, and then render its decision." Id. In this case, the primary factors reveal that a clear television with UV stabilizers that is made of materials readily amenable to the addition of flame retardants was already offered for sale in a prison system. Accordingly, the motion must be granted.

An appropriate order follows.

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

VISUAL SECURITY CONCEPTS, INC., Plaintiff, v. KTV, INC., et al., Defendants.	CIVIL ACTION NO. 98-4921
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ORDER

AND NOW, this 5th day of September, 2000, upon consideration of the Motion for Summary Judgment as to Patent Invalidity and Unenforceability submitted by defendant KTV, Inc., and joined by defendant American Institutional Supply, Inc., the response thereto, the parties' other submissions, and after a hearing, it is hereby **ORDERED** that the Motion is **GRANTED**. Claims 1-4, 7-11, and 15-17 of United States Patent Number 5,806,970 are **INVALID**. Claims 1-8 of United States Patent Number 6,030,097 are also **INVALID**.

BY THE COURT:

MARVIN KATZ, S.J.