

United States District Court,
N.D. Illinois, Western Division.

NEWELL WINDOW FURNISHINGS, INC., and Kirsch, Inc,
Plaintiffs and Counterclaim-Defendants.

v.
SPRINGS WINDOW FASHIONS DIVISION, INC,
Defendant and Counterclaim-Plaintiff.

Oct. 7, 1999.

Michael L. Brody and Alexis MacDowall, Winston & Strawn, Chicago, IL, Thomas H. Boswell, Hinshaw & Culbertson, Rockford, IL, for plaintiff Newell Window Furnishings, Inc. and Kirsch, Inc.

Roy H. Wepner, John R. Nelson, Lerner, David, Littenberg, Krumholz & Mentlik, LLP, Westfield, NJ, Thomas G. Ruud, Barrick, Switzer, Balsley & Van Evera, Rockford, IL, for defendant Springs Window Fashions, Division, Inc.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

MAHONEY, Magistrate J.

This action was brought by Plaintiffs Newell Window Furnishings, Inc. ("Newell") and Kirsch, Inc. ("Kirsch") (collectively "Plaintiffs"), alleging infringement by Defendant Springs Window Fashions Division, Inc. ("Springs" or "Defendant") upon United States Patent Nos. 5,692,550 and 5,701,940. Springs counter-claimed for declaratory judgment finding the asserted claims invalid, unenforceable, and not infringed. Liability and damages issues were bifurcated, and the parties consented to try liability to the magistrate judge without a jury. *See* 28 U.S.C. s. 636(c); Fed R. Civ. P. 39, 73.

The parties provided a large amount of helpful material to aid the court in trying the liability issues. That material included 45 paragraphs setting forth stipulated facts and contested issues, *see* Stipulations of Fact and Statement of Contested Issues, Docket No. 45 (January 22, 1999) ("Stipulations") and pre-trial briefs from each party setting forth their theories of the case. *See* Plaintiffs' Pre-Trial Brief, Docket No. 46 (January 22, 1999) ("Plaintiffs' Pre-Trial Brief"), *and* Pre-Trial Brief of Defendant Springs Window Fashions Division, Inc., Docket No. 47 (January 22, 1999) ("Defendant's Pre-Trial Brief").

A five day bench trial was held from April 12th to April 16th, 1999. The parties adduced testimony from twenty-one witnesses in all, including two expert witnesses, FN1 nine witnesses who appeared live in court, FN2 and fifteen witnesses (three of whom also appeared live) who testified by deposition. FN3 A number of documentary, physical and demonstrative exhibits were received into evidence.

FN1. Mark Newman appeared as an expert witness on behalf of Plaintiffs. Mark Nusbaum appeared as an expert witness on behalf of Defendant.

FN2. Sander N. Johnson, William K. Wells, Stephen Thomas, Brad Michael, Ren Judkins, Lynn Alstadt, Mark Nusbaum, Mark Newman, and Lance Fritz offered live testimony at trial.

FN3. Don L. Bertva, Scott T. Bluni, Leigh Coleman, Lance W. Devereaux, James A. Ford, Sander N. Johnson, Paul F. Josephson, Alan J. Katz, Barry Markman, Thomas J. Marusak, William Merone, Bradley S. Michael, Ricky Spencer, Alan R. Thiele, and Stephen C. Thomas testified by deposition.

At the close of evidence, Springs moved for judgment as a matter of law on the issue of infringement. Plaintiffs moved for judgment as a matter of law on the issues of infringement, validity, and enforceability. Those motions were taken under advisement and will be ruled upon with this order.

Subsequent to trial, each party again aided the court by submitting proposed findings of fact and conclusions of law. *See* Plaintiff's Proposed Findings of Fact and Conclusions of Law, Docket No. 71 (May 10, 1999) ("Plaintiffs' Findings" and "Plaintiffs' Conclusions"); FN4 Springs Window Fashions Division, Inc.'s Posttrial Proposed Findings of Fact, Docket No. 70 (May 7, 1999) ("Springs' Findings"), and Springs Window Fashions Division, Inc.'s Posttrial Proposed Conclusions of Law, Docket No. 69 (May 7, 1999) ("Springs' Conclusions"). Each party also had an opportunity to respond to the other's proposed findings of fact and conclusions of law.

FN4. Plaintiffs' Proposed Findings of Fact and Proposed Conclusions of Law are contained in a single document but are numbered in separate sequences. The court will refer to those two portions of the document as "Plaintiffs' Findings" and "Plaintiffs' Conclusions," respectively.

The court has carefully reviewed and considered the testimony and exhibits offered at trial, the testimony offered by deposition, the stipulations made by the parties, the findings of fact and conclusions of law proposed by the parties, and all arguments offered by counsel. The court now enters the following findings of fact and conclusions of law pursuant to Rule 52(a) of the Federal Rules of Civil Procedure.

BURDENS OF PROOF

Two different burdens of proof apply to the factual issues in this litigation. The starting point is the familiar preponderance of evidence standard; the court has applied this standard to all questions of fact which do not fall into one of the categories enumerated below.

Certain factual questions in this case were subject to a clear and convincing standard. This standard applies, in part, because of the statutory presumption of validity that arises in favor of an issued patent; any party asserting that a patent is invalid bears the burden of establishing invalidity by clear and convincing evidence. 35 U.S.C. s. 282; *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 1423 (Fed.Cir.1988); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 291-92 (Fed.Cir.1985); *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1359-60 (Fed.Cir.1984).

This statutory presumption of validity endures even when a challenging party introduces pertinent prior art

that was not considered by the patent examiner. Such prior art might aid in establishing invalidity, of course, but in no way lessens or shifts the burden of persuasion. *Ryco*, 857 F.2d at 1423; *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1534 (Fed.Cir.1983).

Plaintiffs have offered rebuttal evidence bearing upon validity. The court has fully considered this evidence, but at no time has the court placed a burden upon Plaintiffs to establish that the patents in suit are valid. Instead, the court considered this evidence in connection with the determination whether Springs had carried its own burden: "[i]n the end, the question is whether all the evidence establishes that the validity challenger so carried his burden as to have persuaded the decisionmaker that the patent can no longer be accepted as valid." *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1022 (Fed.Cir.1985), *overruled on other grounds by* *Midwest Indus. Inc. v. Karavan Trailers, Inc.*, 175 F.3d 1356 (Fed.Cir. May 5, 1999).

The question of validity arises in several contexts. Springs asserts that the patents in suit were anticipated under s. 102(g) of the Patent Code or obvious under s. 103; the court has resolved all factual pertaining to anticipation and obviousness under the clear and convincing standard.

Springs also asserts that the patents in suit are tainted by inequitable conduct committed before the PTO and are therefore unenforceable. Allegations of inequitable conduct must also be established by clear and convincing evidence; this is "an essential safeguard" to protect innocent parties from unwarranted forfeiture, *Tol-O-Matic, Inc. v. Proma Produkt-und Marketing Gesellschaft m.b.H*, 945 F.2d 1546, 1554 (Fed.Cir.1991), particularly "given the ease with which a relatively routine act of patent prosecution can be portrayed as intended to mislead or deceive." *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 939 (Fed.Cir.1990). Factual questions bearing upon Springs' allegations of inequitable conduct have therefore also been resolved under the clear and convincing standard.

FINDINGS OF FACT

The Parties

The parties to this lawsuit are members of the window coverings industry. Plaintiff Newell is a corporation organized under the laws of Delaware with its principal place of business in Freeport, Illinois. Plaintiff Kirsch is a corporation organized under the laws of Delaware with its principal place of business in Sturgis, Michigan. Newell and Kirsch are subsidiaries of Newell Operating Company, which in turn is a subsidiary of Newell Company. Kirsch was previously operated as a division of Cooper Industries, Inc. ("Cooper") and was sold to Newell effective May 30, 1997.

Defendant Springs is a corporation organized under the laws of Delaware with its principal place of business in Middleton, Wisconsin. Springs is a subsidiary of Springs Industries, Inc.

The Patents in Suit

The invention at issue in this lawsuit is presently covered by two utility patents and one design patent. Plaintiffs have asserted only the utility patents in this litigation, but the design patent plays an important role in these proceedings and will receive significant treatment in this opinion.

The utility patents are United States Patent Nos. 5,692,550 (the " '550 patent") and 5,701,940 (the " '0 patent") (collectively, the "patents in suit" or the "utility patents"), both naming James Ford, Donald Bertva, James Kennedy, and Ronald Presdorf as inventors. The inventors were employees of Kirsch at all pertinent

times. The applications leading to the patents in suit were initially assigned to Cooper Industries, which owned Kirsch at the time of filing; the patents in suit are presently owned by Newell and have been licensed exclusively to Kirsch.

The patents in suit both descend from Application Serial No. 208,981 (the "'981 application"), filed March 10, 1994. The '981 application was abandoned December 4, 1996 in favor of a continuation, Application Serial No. 699,593 (the "'593 application"), filed August 19, 1996. A continuation-in-part of the '981 application was filed August 1, 1995 as Application Serial No. 509,910 (the "'910 application"). The '593 application issued as the '550 patent on December 2, 1997; the '910 application issued as the '0 patent twenty-eight days later, on December 30, 1997.

The '550 patent is entitled "Cellular Shade Material" and contains the following abstract:

A cellular pleated shade material is provided for cellular pleated shades. Each pleat thereof is formed from a single strip of shade material which is folded longitudinally in half, and the edges thereof are glued together to form a fin. The side of one cell is affixed to the side of the next adjacent cell adjacent the centerline of the sides. The ratio of cell height to cell width may be varied, without affecting the overall aesthetic presentation of the shade, by varying the size of the fin.

The only claim asserted from the '550 patent is Claim 1. Claim 1 of the '550 patent reads as follows:

[a] FN5 A cellular pleated shade member having a plurality of interconnected cells, at least one of the cells comprising:

FN5. Alphabetical paragraph designations have been added by the court for purposes of future reference.

[b] a strip of shade material folded lengthwise to form an upper cell wall and a lower cell wall extending from a fold, each upper and lower cell wall having a free edge and a folded edge;

[c] said upper cell wall and lower cell wall of said strip interconnected adjacent their respective free edges; and

[d] said upper cell wall and said lower cell wall each having at least one attachment zone on each side of a longitudinal center line of each said cell wall for connecting said cell to an adjacent cell.

The '0 patent, entitled "Cellular Shade," contains the same abstract as found in the '550 patent. Once again, only Claim 1 of the '0 patent is asserted:

[a] FN6 A cellular pleated shade member having a plurality of cells, at least one of the cells comprising:

FN6. Alphabetical paragraph designations have again been added by the court solely for ease of reference.

[b] a strip of shade material folded lengthwise to form an upper cell wall and a lower cell wall extending from a fold, each upper and lower cell wall having a free edge and a folded edge merging with the adjacent wall of the strip at said fold;

[c] said upper cell wall and lower cell wall of said strip connected adjacent their respective free edges and

forming a fin at said connection;

[d] wherein said upper cell wall is attached to a lower cell wall of a first adjacent cell at an upper interconnection zone, said upper interconnection zone being located on said upper cell wall between said fin and said fold; and

[e] wherein said lower cell wall is attached to an upper cell wall of a second adjacent cell at a lower interconnection zone, said lower interconnection zone being located on said lower cell wall between said fin and said fold.

The related design patent, not asserted here, is United States Patent No. Des. 352,856 (the " '856 patent" or the "design patent"). The '856 patent is entitled "Honeycomb Shade Cell" and claims the ornamental aspects of the invention claimed in the utility patents. The design patent application was filed September 10, 1993, and issued November 29, 1994, naming James Ford as inventor.

The circumstances surrounding prosecution of the patents in suit are of central importance to this case. Those circumstances are also intimately intertwined with other events that occurred during the same period, and are best viewed in that context. The court will therefore address the prosecution history after developing the remaining factual record.

The Window Coverings Industry

The window coverings industry includes products such as traditional roller shades; horizontal and vertical blinds; accordion-style pleated shades; cellular shades; and mounting hardware. The overall window coverings market has long been considered mature. Overall sales exhibit very little growth, if any, from year to year. Those in the market are forced to compete on the basis of either price or innovation; gains in market share generally come only at the expense of a competitor.

Cellular shades are made up of multiple individual cells that may be extended to cover an aperture (such as a window) or collapsed to reveal it. Though not perfectly circular, each cell is generally tubular in shape; the length of each tubular cell will generally correspond to the width FN7 of the window.

FN7. Other orientations are possible: in shades that open and close horizontally, for example, the tubular cell length will correspond to the height of the window; in semi-circular and circular shades that fan open, the length will correspond to a radius.

Cellular shades may be characterized by the number of cells which they contain from front to back: "single cell" shades are one cell deep, "double cell" shades are two cells deep, and so forth. The differences are more than superficial. Because they contain less fabric, single cell shades can be produced less expensively, can fit more readily into shallow window openings, present a smaller "stack" FN8 when drawn fully open, and weigh less than their multiple cell counterparts. Multiple cell shades, on the other hand, generally provide superior heat insulation, block light more effectively, and are more resistant to fading.

FN8. The "stack" is the stack of fabric that remains when a cellular shade is drawn fully open.

Cellular shades are manufactured by a variety of methods. In one method, commonly called the "strip method," cells are formed from individual strips of material that are folded, stacked, and adhered together. In another method, commonly called the "web method," a continuous sheet of material is folded back and forth upon itself and then adhered to itself at appropriate points to form closed cells. Both the strip method and web method are susceptible to variations in the number of cells, the placement of pleats, and the manner of adhering the cell walls to one another.FN9

FN9. Indeed, the terms "strip method" and "web method" are sometimes used to denote entire categories of manufacturing processes; the difference is semantic and of no consequence here.

Cellular shades generally have four components. The primary component is the fabric or material that is the collection of interconnected cells. The uppermost cell is attached to a head rail that allows mounting; the lowermost cell is attached to a bottom rail that anchors the shade. Finally, the lifting mechanism allows the shade to be raised and lowered.

Cellular shades are sold to the retailing public in three ways. "Stock" cellular shades are available off-the-shelf in retail outlets in standard sizes and colors. "Size-in-store" shades are cut to the correct size at the time of purchase from pre-assembled "blanks." Finally, "custom" shades are assembled to the exact size and color specified by the consumer.

Origins of the Cellular Shade Market

Hunter Douglas is generally acknowledged as the founder of the modern cellular shade market. Hunter Douglas pioneered the market with their Duette single cell shade in 1985.

The Duette shade was protected by a number of patents. Hunter Douglas used those patent rights to build and dominate the cellular shade market. A number of fabricators were initially licensed to sell Duette shades so as to develop consumer demand and distribution channels; in fact, Kirsch was one of the largest, if not the largest, licensed Duette fabricator at one time.FN10 As consumer demand grew, and as Hunter Douglas built up its own fabrication capacity, independent fabricators were gradually forced back out of the market as Hunter Douglas raised its royalty rates to uneconomical levels.

FN10. There was testimony adduced that Kirsch initially sold Duette-style shades under the mark "Accordia," the same mark later used to sell shades embodying the patents-in-suit. Contrary testimony from Mr. Ford was that the Duette-style shades were sold only under the mark "Encore." Invoice records indicate that "Accordia" shades were sold to at least one retailer as early as 1994, and the possibility that these shades embodied the inventions claimed in the patents-in-suit has led Springs to suggest that a s. 102(b) prior sale bar had arisen and that the failure to apprise the PTO of these prior sales correspondingly amounted to inequitable conduct. The court has weighed these conflicts of evidence, and cannot find by clear and convincing evidence that the "Accordia" shades sold in 1994 embodied the patents-in-suit. Accordingly, there is insufficient factual basis upon which to consider either a prior sale bar or allegations of inequitable conduct related to prior sale.

Hunter Douglas jealously protected its patent rights and gained a reputation for being litigious and hardline in its business dealings. At least one national retailer refused to do business with Hunter Douglas in the

early 1990's. Kirsch itself was sued when some of its early Accordia samples exhibited a "flat back" that was claimed in a Hunter Douglas patent. It was determined that the samples were aberrations with incorrectly placed glue lines, and Kirsch committed to replace the samples in question; the suit was dismissed without prejudice.

Competitors initially turned to multiple cell shades as a safe harbor from the single-cell Duette patents. Multiple cell shades have since grown to occupy a market niche of their own, owing in part to their advantages in insulation, light blocking, and color fastness; they are now generally considered an integral component of a comprehensive portfolio for stock and size-in-store sales. Even Hunter Douglas has expanded into the multiple cell market by offering double and triple cell versions of Duette. Multiple cell shades represent only one-quarter of overall cellular sales, however, and have not proven a perfect substitute for single cell shades.

Incentives thus remained to develop single cell shades that avoided the Duette patents. The lack of single cell shades has particularly hampered competitors in winning accounts with large national retailers, who generally favor manufacturers that can offer a complete line of products; Hunter Douglas has relied upon its comprehensive Duette line to maintain a 70% share of the cellular shade market.

This litigation stems from competing efforts to design around the Hunter Douglas patents. In addition to the Duette, three set of products will play central roles in this opinion. The first is the Kirsch Accordia product line, which embodies the patents in suit. The second is the Springs Maestro and Bali Solitaire FN11 products, which were derived from an invention disclosed to Springs by Mr. Ren Judkins. These are the products accused of infringing upon the patents in suit. The third is the Solo single cell shade and related rosette sold by Comfortex Corporation ("Comfortex"). The Solo was the subject of earlier litigation brought by Kirsch against Comfortex; the rosette was offered as prior art in that litigation.

FN11. The duplication of brand names results from Springs' prior acquisition of another corporate entity and is of no consequence here. The structures are identical, and the court will refer to both the Maestro and the Bali Solitaire collectively as the Maestro product.

Manufacture and Structure of the Pertinent Products

An understanding of the differences in cell manufacture and structure for the various products involved is necessary for resolution of this case. The baseline for comparison is the Duette, which is manufactured by a strip method. The Duette strip contains one pleat on each side of and equidistant from the strip's center. The pleats are located slightly nearer to the respective edges of the strip than to its center. The fabric between the pleats will ultimately comprise the lower wall of the cell. The fabric outside each of the pleats is folded inward to create an upper cell wall. Because the pleats are located nearer to the strip's outer edges than its center, these outer pieces of fabric do not meet when folded inward; the upper cell wall is thus left with a small gap in its center.

The Duette shade is made by stacking these cells upon one another. Two glue lines are used to attach each cell to the one above it. The glue lines are placed on either side of the gap in the upper cell wall; when a second cell is stacked on top of the first, the glue adheres the upper cell wall of one shade to the lower cell wall of the next. The resulting shade is symmetrical about the x-y plane. The Duette shade is illustrated in Appendix A.

The Kirsch Accordia, which is also manufactured by a strip method, was first introduced in August 1995. The court will allow the patents to speak for themselves as to the step-by-step method of construction and final cell shape. Generally speaking, however, the Accordia can be distinguished from the Duette on at least three grounds: the Accordia cell contains only one pleat; the upper cell wall of the Accordia cell is a continuous stretch of fabric without a gap; and one side of the Accordia cell has a "fin" or "tab," leaving it asymmetrical about the x-y plane. Internally, Kirsch referred to this cell structure as a "tadpole" cell; the tadpole cell is illustrated in Appendix B. The Accordia shade incorporating the tadpole cell is illustrated in Appendix C.

The Springs Maestro products were introduced in June 1996. The Maestro is produced by a variant of the web method known as the "shaved cake." The first step of the web method is to fold a long, single, continuous piece of fabric back and forth many times, creating an "accordion-style" structure. This structure, illustrated in Figure 1A of Appendix D, is the basic structure of a traditional pleated shade.

Glue lines are then laid between pleats in the manner shown in Figure 1B of Appendix D. These glue lines adhere adjacent pleats to one another. The result is a double cell shade with uneven cells: one column of cells is full-sized and will ultimately remain intact; the second column of cells is undersized and will be partially removed. The outer pleat of the undersized column is removed by a sanding process, largely eliminating the two outer walls that defined the undersized column of cells. This is illustrated by the dotted line in Figure 1C of Appendix D. The result is a single cell shade with pleats on one side and tabs (remnants of the sanding process) on the other. This is illustrated by Figure 1D in Appendix D.

The Comfortex products are also derived from a double cell structure. The Comfortex double cell is created by a web process very similar to the Maestro web process; the primary difference is that the Comfortex process creates two columns of equally-sized cells, as illustrated in Appendix E. This double cell structure is marketable in its own right, and has been sold under the mark "Symphony" since 1991.

The first efforts by Comfortex to derive a single cell structure from Symphony fabric were done by hand in the early 1990's. At that time, Symphony fabric was being incorporated into semi-circular shades; the semi-circular shades fanned open about an axis at their center so that the tubular cells radiated outward from the axis. An aesthetic problem remained, however, as the rotational mechanism at the center was never fully concealed by the shade itself.

Comfortex developed a "rosette" to solve this problem. In its initial form, the rosette was essentially a miniature version of the semi-circular shade: it was a small portion of double cell Symphony fabric that could itself be fanned out into a semi-circular structure. The fabric measured only three inches across before being fanned out; in fact, the first rosettes were made from small pieces of scrap material. The fanned-out structure measured six inches across and three inches high. The base of the rosette was adhered to a cardboard base that left it freestanding and allowed it to be positioned and moved independently of the full-size shade. This arrangement also prevented opening and closing of the rosette, as the adhesive did not readily allow either end of the rosette to be detached from its base. The rosette thus lacked any sort of rotational mechanism, and did not have a hole at its center; it was an aesthetically pleasing piece that could be used to conceal the rotational mechanism of the full-size shade.

The first rosettes consisted of double cell Symphony fabric. Use of double cell fabric presented a problem of its own: the fabric was too bulky to sit in front of the rotational mechanism while also sitting flush with

the double cell fabric of the full-size shade. Comfortex cured this problem by cutting away some of the shade fabric from the back side of the rosette, simultaneously decreasing its bulk and converting it into a tabbed single cell structure. At first the cutting step was performed manually with a pair of scissors; the process was later refined and performed by a mechanical cutter. The result is a single cell structure with a pleat on one side, a tab on the other, and a single glue line connecting each cell to the next adjacent cell. This structure is illustrated in Appendix F.

Comfortex has since developed this cell structure into a proprietary single cell shade, sold under the mark "Solo." This shade was the subject of earlier litigation between Kirsch and Comfortex, which is more fully described below.

Invention of the Tadpole Cell

James Ford was the Vice President of Marketing and Sales at Kirsch from 1981 to 1993. In the late 1980's, Kirsch was fabricating and selling Duette-style single cell shades under license from Hunter Douglas; one of their business goals during that time was to develop a proprietary single cell shade as a viable alternative to Duette. Mr. Ford conceived of the tadpole cell as part of these efforts in 1991.

Mr. Ford testified that he conceived of the tadpole cell on or about January 15, 1991, and that he developed a drawing of the structure at that time. This date is corroborated only by internal patent application requests submitted to Kirsch's intellectual property department more than two years later. The January 1991 drawing has not been located; every indication is that the drawing was destroyed when Mr. Ford retired in May 1993. The earliest corroborated drawing available was made on May 15, 1991 and witnessed by Ms. Joan J. Carr.

After Mr. Ford's conception, it fell to Mr. Bertva, Mr. Kennedy, and Mr. Presdorf to find a means of putting the idea into production. Their contributions were limited to developing a manufacturing process to make the tadpole cell: adapting pre-existing equipment to manufacture tadpole product; incorporating additional equipment, such as glue heads and pleaters, as needed; and experimenting with different fabrics and adhesives until a satisfactory combination was found. The invention was reduced to practice on or about January 14, 1993, when a model of the cell was constructed by hand from paper and tape by either Mr. Kennedy or Mr. Presdorf. This invention was disclosed in the design patent and in the '981 application, which ultimately led to the patents in suit.

Invention by Ren Judkins

Springs asserts that the utility patents are invalidated by the prior invention of one Ren Judkins. Mr. Judkins is a likable freelance inventor who currently acts as a consultant to many, if not all, of the largest window covering manufacturers. Mr. Judkins was first exposed to the window coverings industry when working at a fabricating company owned by his father. After attending college and trying his hand at start-up computer and toy companies, Mr. Judkins returned to the family business in 1977; at that same time, he also worked to invent new window coverings and market them to manufacturers.

One of Mr. Judkins' better customers was Verosol, U.S.A. ("Verosol"), the American subsidiary of Dutch parent Blydenstein-Willink, B.V. ("Blydenstein"). Verosol had come to prominence in the 1960's after inventing the pleated shade; part of their motivation in buying inventions from Mr. Judkins was to diversify their product line. Blydenstein went on to buy the Judkins fabricating business in 1986; at that time or shortly thereafter, Mr. Judkins joined Blydenstein as their vice president of new product development. Mr. Judkins spent approximately two and one-half years in that position, during which time he worked with

Verosol to develop new products. Mr. Judkins continued a formal consulting relationship with Verosol after that time, in part because turnover in management left Verosol with little or no institutional memory of their ongoing product development efforts or their stable of intellectual property.

Mr. Judkins also continued to develop products on his own, some of which were offered to Verosol. He retained residual rights in those inventions that Verosol purchased, however: Verosol was given a period of exclusive rights, but an invention would revert back to Mr. Judkins if it were not developed or marketed within that time frame. The single cell invention at issue here fell into this category.

Mr. Judkins developed a process for manufacturing single cell structures. The process is a strip method in which the ends of each strip are folded inward, similar to the Duette process. The ends of these folded pieces are adhered to the center of the same strip, creating two closed cells that, if expanded, would create something of a figure-eight structure. Adhesive is placed on top of each cell, and another strip is stacked on top of the first; the result is a triple cell structure. This structure is then cut through the center of the middle column of cells. The result is two identical single cell structures, each pleated on one side and tabbed on the other: the pleat remains from the original folding, while the tab remains from the cutting process. Each cell is connected to an adjacent cell by a single adhesive bond that is centered upon the cell wall.

The earliest drawing illustrating this process is a computer printout dated February 25, 1991. This drawing is known as the "T19 drawing," reflecting Mr. Judkins' procedure of assigning unique alphanumeric designations to each of his drawings. The T19 drawing is reproduced in Appendix G. Mr. Judkins actually conceived of this method long before February 1991, but computing limitations prevented him from producing the T19 drawing until that time. Mr. Judkins disclosed this process to Mr. Coleman in the latter months of 1990 and showed him the T19 drawing in February 1991. Mr. Judkins went so far as to create a model using paper, tape and scissors at that meeting; FN12 this is the earliest corroborated reduction to practice of the invention. Mr. Judkins created a model in the same fashion, with the same limited supplies, at trial.

FN12. Mr. Coleman testified that this meeting took place in February 1990, while Mr. Judkins testified that the meeting took place in February 1991. Mr. Judkins' version is corroborated by reference to the March 1991 meeting with Mr. Alstadt and the June 1991 meeting with Blydenstein. The discrepancy, however, is immaterial, for the later date will prove to both predate Mr. Ford's invention and to constitute abandonment, suppression or concealment of the invention; in any event, Springs has established by clear and convincing evidence that the T19 was reduced to practice no later than February 1991.

Verosol did purchase the rights to the T19 process, and Mr. Coleman and Mr. Judkins took some preliminary steps to patent it. To that end, Mr. Judkins met with Lynn Alstadt, outside patent counsel for Verosol, in March 1991. During this meeting, Mr. Judkins showed the T19 drawing to Mr. Alstadt and created a second paper-and-tape model to aid Mr. Alstadt in conceptualizing the process.

Mr. Alstadt and an associate in his office subsequently drafted a preliminary patent application incorporating the T19 process. This application was forwarded to Mr. Judkins for review on or about July 26, 1991. This application claimed the T19 process as an intermediate step in a method for manufacturing shades that contained two different types of fabric: an insulating fabric facing outward, for example, and a color-coordinated fabric facing the interior of the room.

At about this same time, Mr. Judkins also pursued fabric, adhesive, and machinery suppliers. It was particularly difficult to locate an adhesive that had a sufficiently strong bond but would not warp the shade fabric. These problems were solved by the end of 1992, at which time contractors had been located to supply all of the necessary components to put the T19 process into production.

It proved difficult, however, to finance the project. Verosol had recently suffered some severe financial losses and, at the time, Blydenstein preferred a conservative marketing approach that allowed little room for product development or risk of litigation with Hunter Douglas. Mr. Judkins and Mr. Coleman met with Blydenstein officials in June 1991 to seek their support but made little ground.

Instead, Mr. Judkins and Mr. Coleman began marketing the T19 process to other manufacturers. They made no fewer than ten disclosures of the process between 1991 and 1994 to both domestic and foreign manufacturers, including Hunter Douglas, Graber, Joanna, Levolor, Carey-McFall, Blind Design, and Seco Supply. Disclosures were made at corporate offices, at trade shows, and even in Mr. Judkins' own home. All of these disclosures were made pursuant to agreements-sometimes oral and sometimes written-that the disclosure be held in confidence.

Mr. Judkins made one unsuccessful attempt to disclose the process to Kirsch. In 1991, Mr. Judkins contacted Mr. Ford and inquired, in generic terms, whether Kirsch had any interest in a tabbed single cell. Mr. Ford's response was "guarded," and he declined the disclosure; with the benefit of hindsight, it appears that Mr. Ford wished to protect the tabbed tadpole cell which he had recently conceived.

Neither Mr. Judkins nor Mr. Coleman ever succeeded in marketing the T19 process or convincing Verosol to develop it. The rights to the process remained with Verosol until approximately 1997, at which time they reverted back to Mr. Judkins. No patent application had been filed at the time of reversion.

Litigation between Kirsch and Comfortex

Mr. Judkins figured prominently in the litigation between Kirsch FN13 and Comfortex mentioned above. Kirsch filed suit against Comfortex in September 1996, alleging that the Comfortex Solo shade infringed upon the '856 design patent; the '550 and '0 patents asserted here would not issue for another fifteen months. The suit was filed in the Western District of Michigan, where it was assigned to Chief Judge Richard A. Enslen.

FN13. This suit was initially brought in the name of Kirsch's then-parent, Cooper Industries. The real party in interest, however, was Kirsch: Kirsch personnel were responsible for the litigation and Kirsch was ultimately substituted as plaintiff in the action. For ease of reference, the court will frame discussion of this litigation in terms of Kirsch and Comfortex.

This lawsuit was not expected by Comfortex. In fact, Kirsch had recently agreed to become a distributor for Comfortex Symphony shades, but no mention of the pending lawsuit was made before it was filed and served upon Comfortex. Comfortex answered the complaint by denying infringement and counterclaiming for judgment declaring the '856 design patent to be invalid.

The parties met in late March of 1997 to discuss the lawsuit and their emerging relationship. This meeting took place at Comfortex' headquarters in Albany, New York. Attendees included Tom Marusak, the

president of Comfortex; Scott Blaustein, the vice president of finance for Comfortex; Rick Grauer, counsel for Comfortex; Geoffrey Sparks, the president of Kirsch; Lance Fritz, the director of marketing at Kirsch; and William Wells, counsel for Kirsch.

The parties discussed sales levels of Comfortex' Solo shades at this meeting. Comfortex disclosed that the sales levels were relatively low; the Solo product was marketed only to complement the double cell Symphony shade, and was never expected to reach significant sales levels.FN14 Mr. Sparks suggested that Kirsch would agree to settle the matter on terms that would effectively allow Comfortex to continue its low sales volume of Solo but prevent those sales from ever increasing to significant levels.

FN14. Plaintiffs have objected to a large amount of testimony offered at pages 32 to 37 of Mr. Marusak's deposition. The grounds for the objection are not specified in the record, but the court notes that the testimony generally contains hearsay and speculation as to Kirsch's motives in litigation. While unable to rule upon this unspecified objection, the court notes that this testimony has only been considered insofar as it reflects Mr. Marusak's own personal knowledge and state of mind.

The parties outlined a license agreement with a graduated royalty scale. Low volume sales would incur a very low royalty, thus allowing Comfortex to maintain its pre-existing sales levels with minimal impact; but increasing sales volume would implicate higher marginal royalty rates that made additional sales cost-prohibitive. The specific sales levels and royalty rates were not set at this time; Mr. Marusak was charged with developing a specific proposal and forwarding it to Mr. Sparks.

Despite having reached this agreement, Kirsch moved on April 1, 1997 for a preliminary injunction against further sales of the Solo shades. Comfortex chose to oppose this motion rather than suspend sales of Solo altogether. The subsequent actions by the parties in that litigation bear significantly upon Springs' allegations of inequitable conduct and thus merit extensive treatment here.

Comfortex responded to the preliminary injunction motion on May 2, 1997. Their opposition papers relied upon three prior art references: a shade sold in Europe by Faber; the Judkins T19 cell; and the Comfortex single-cell rosette. The Faber reference was a single cell shade sold in Denmark prior to 1950. It was fully disclosed to the PTO during prosecution of the patents in suit, and the patents in suit issued over it. Springs does not rely upon the Faber reference in this litigation, and it does not merit attention in this opinion.

Comfortex relied upon the Judkins T19 cell on two grounds. First, Comfortex argued that Kirsch-through Mr. Ford-had misappropriated the design in the '856 patent from Mr. Judkins. This argument apparently stemmed from an errant belief that Mr. Judkins had successfully disclosed the T19 process to Mr. Ford in the April 1991 conversation. This assertion was later flatly disclaimed by Mr. Judkins.

Comfortex also asserted that the T19 cell anticipated the '856 design patent. In support of this argument, Comfortex' May 2 opposition included a declaration executed by Mr. Judkins on April 28, 1997. In that declaration, Mr. Judkins stated that he had developed his strip process and prepared the T19 drawing prior to 1992; had offered to sell a tabbed single cell to Mr. Ford in April 1991; that the design disclosed in the '856 patent was identical to the design of his T19 cell; and that Mr. Judkins had filed a utility patent application claiming the T19 cell, and was attempting to initiate an interference with the co-pending '593 and '910 applications. Mr. Judkins' declaration offered no specific dates of conception or reduction to practice, nor did it offer any indication that his claims could be corroborated. A redacted version of the T19

drawing was attached as an exhibit to Mr. Judkins' declaration.

Finally, Comfortex asserted that its own rosette anticipated the '856 patent. In support of this argument, Comfortex relied upon declarations by Barry Markman and Ricky Spencer, both Comfortex composers, who identified the rosette used by Comfortex and stated that it had been in use more than twelve months prior to the filing of the design patent application.

Mr. Judkins was deposed in connection with his declaration on May 12, 1997. The deposition was taken by Mr. Wells on behalf of Kirsch. Also present were William Merone, an associate from Mr. Wells' office; Mr. Grauer, on behalf of Comfortex; and Mr. Alstadt, as personal counsel for Mr. Judkins. Three lines of questioning at that deposition are especially pertinent here.

First, Mr. Wells questioned Mr. Judkins about the allegation that Mr. Ford had misappropriated the '856 design from Mr. Judkins. As indicated above, Mr. Judkins flatly denied that Mr. Ford had done so.

Second, Mr. Judkins testified that he had disclosed the single cell product described in his declaration to Verosol, Mr. Devereaux at Springs, Blind Design, and to machinists bidding to supply the necessary manufacturing equipment.

Finally, Mr. Wells tried to determine the exact nature of the alleged prior invention. Mr. Wells had the redacted version of the T19 drawing available prior to the deposition; that redacted version contained the two drawings shown on the right side of Appendix G.FN15 Mr. Judkins also provided Mr. Wells with an unredacted version of the T19 drawing at the deposition.

FN15. The first of these drawings reveals the intact triple cell honeycomb formed by stacking and adhering several strips; the second drawing reveals the two tabbed single cell structures that result from splitting the triple cell.

During his declaration, Mr. Judkins seemingly referred to the tabbed single cell shown in his declaration as the "finale proposal ." There appears to have been some level of miscommunication at the deposition, as the "Finale Proposal" attached as an exhibit to the deposition discloses a different structure altogether. Finale is actually a tabbed pleated shade, void of cells, that is sold by Verosol. The tabs are found only on the backside of the pleated structure; they provide a location for the liftcord that is out of sight from a frontal perspective. The Finale Proposal that is attached to the deposition reveals a method of creating an untabbed single cell shade by combining two pieces of Finale product: by placing the two Finale strips back-to-back, and attaching the strips to each other at their tabs, a single cell structure without any external tabs could be created. This structure differs significantly from the cell revealed in the T19 drawing, which has a pleat on one side and a fin on the other.

Nevertheless, it appears that Mr. Judkins framed his deposition testimony in terms of the Finale product, though Mr. Wells asked about the T19 drawing submitted with his declaration. Indeed, certain portions of the transcript could be read to indicate that Mr. Wells used the term "finale product" to refer to the T19 drawing. *See, e.g.*, Judkins Dep. at 46:20-47:10 (DX 8 at N 012660) (describing "the tabbed product that ... is shown in your finale proposal" as "a single cell shade" that "is one with a fin on one side and a crease on the other side of it"). *See also, generally*, Judkins Dep. at 38:21-47:10 (DX 8 at N 012660). The court has considered whether, notwithstanding Mr. Wells' testimony at trial, the transcript of the Judkins deposition

reveals that Mr. Wells understood the "finale proposal" and the dates associated with it to be the T19 cell; but given the overall inconsistencies in terminology at the Judkins deposition, such a conclusion is not supported by clear and convincing evidence.

Comfortex moved for summary judgment on the same day as the Judkins deposition. The summary judgment motion was filed prior to conclusion of the deposition, and could not have incorporated any of the information gained there. The summary judgment motion thus repeated, for example, the allegation that Mr. Ford had misappropriated the tadpole design, an allegation that had been expressly disclaimed by Mr. Judkins.

Kirsch filed its reply brief in support of its motion for preliminary injunction on a Friday, May 30, 1997. Judge Enslin denied that motion by order entered the next Tuesday, June 3. The substantive portion of Judge Enslin's Order reads as follows:

In evaluating the motion for preliminary injunction under Federal Rule of Civil Procedure 65, the Court must consider the following factors to determine whether to grant preliminary injunctive relief: (1) the moving party's likelihood of success on the merits; (2) the extent to which the denial of the injunction would cause the moving party irreparable harm; (3) the balance of the hardships caused to the parties by either granting or denying the relief requested; and (4) the effect on the public interest. *Reebok Intern. Ltd. v. J. Baker, Inc.*, 32 F.3d 1552, 1555 (Fed.Cir.1994). In this case, the Court has examined the evidence filed by the parties and has strong reservations about granting any prospective relief notwithstanding the presumption of validity applicable to patents. First, there are significant issues as to whether the [Comfortex] Solo shades are substantially the same as the patented design in light of their cell shape. Second, assuming substantial similarity, there are then significant issues as to whether the patent is valid under 35 U.S.C. s. 102 because of prior art (prior Comfortex shades), prior foreign printed publications (the Faber catalogues), and the prior invention of Mr. Ren Judkins. Together these questions concerning infringement and validity of the patent loom so large that the Court must conclude as a preliminary matter that it is unlikely that plaintiff will succeed on the merits. In light of this conclusion, the Court cannot presume irreparable harm relating to the alleged infringement. *Sofamor Danek Group, Inc. v. Depuy-Motech, Inc.*, 74 F.3d 1216, 1222-23 (Fed.Cir.1996); *Reebok, supra* at 1556. Given these determinations, the Court also concludes that the other factors disfavor granting a preliminary injunction.

Comfortex' motion for summary judgment was still pending. Kirsch filed its opposition to summary judgment on June 10, 1997; that opposition incorporated the testimony adduced from Mr. Judkins on May 12, and was the first time that the testimony had been submitted to the District Court. Specifically, Kirsch's opposition noted that Mr. Judkins had disclaimed any possibility that Mr. Ford had stolen his design and that Comfortex had not submitted any evidence corroborating Mr. Judkins' claim of prior inventorship. Seven days later, on June 17, Kirsch filed a notice of appeal of Judge Enslin's order denying the preliminary injunction. Kirsch contended that the June 3 order did not contain sufficient findings of fact to support denial of the preliminary injunction, as required by Federal Circuit precedent.

Comfortex filed its reply in support of summary judgment on June 23. The summary judgment motion would never be decided, as the parties reached settlement in a conference with Magistrate Judge Doyle A. Rowland that same day. The terms of settlement, made of record by Magistrate Judge Rowland, were similar to the structure discussed in the March 1997 meeting in Albany: Comfortex agreed to pay royalties of 0.375 % on the first 1,000,000 feet of product, 5.00 % on the next 500,000 feet of product, and 18.00 % on the next 1,000,000 feet of product. Comfortex' royalty obligations would cease if the '856 patent was later found

invalid, if a product comparable to the Solo was later determined not to infringe, or if Kirsch failed to enforce the '856 patent against other parties after notice from Comfortex that such other parties were infringing the patent. Comfortex admitted validity and infringement of the '856 patent, although the exact language of those recitals was subject to some dispute during drafting.

The parties also entered into two related agreements. The first was that the parties file an agreed motion to vacate Judge Enslin's June 3 order; Kirsch felt that this was necessary to allow abandonment of their appeal. The parties also agreed that Comfortex would be granted a \$25,000 credit against future royalty payments pursuant to a "technology sharing agreement" whereby certain patents owned by Comfortex would be licensed to Kirsch.

Incentives for settlement differed on each side. Kirsch had intended to freeze Comfortex out of the single cell market; the realization that Solo shades were sold only in very small quantities satisfied that need. By the same token, Comfortex had little interest in pursuing the litigation to an acrimonious end; though confident that they could succeed on the merits, the low sales volume of the Solo shade did not warrant the legal fees necessary to defend it. The preliminary injunction and summary judgment proceedings had alone resulted in legal fees exceeding annual Solo sales.

Comfortex perceived that they had been targeted by Kirsch only in preparation for subsequent litigation against Springs; that is, that Kirsch had filed suit to gain the benefit of testing the design patent in litigation. The technology sharing agreement grew out of an insistence by Comfortex that they be reimbursed for their legal fees in defending suit, a demand which Kirsch flatly refused to consider in such terms. The technology sharing agreement was conceived as a vehicle to allow some consideration to Comfortex without the appearance of outright reimbursement.

The technology sharing agreement licensed Kirsch to certain patents owned by Comfortex. The patents related to the Symphony shades which Kirsch had recently agreed to distribute. Pursuant to the technology sharing agreement, Comfortex was to receive certain royalty and consulting fees in connection with use of those patents; but, significantly, those fees came due to Comfortex on the same day that Comfortex' royalties to Kirsch under the settlement came due. The technology sharing agreement thus negated the first \$25,000 of royalties which Comfortex would otherwise pay under the '856 license; in fact, based upon past sales of Solo, Comfortex realistically expected that their royalty obligations over the lifetime of the '856 license would be excused by this credit. Moreover, while Kirsch committed up to \$25,000 in consideration under the technology sharing agreement, as of trial Kirsch had never availed themselves of the patents which were licensed to them under the agreement.

The parties exchanged draft settlement papers in the weeks following the June 23 conference. The exact terms of the technology sharing agreement were the subject of some dispute; Mr. Grauer memorialized his understanding of the agreement in a July 7 letter that rejected a proposal put forth by Mr. Wells:

Your proposed Technology Sharing Agreement goes way beyond what the parties discussed and agreed to, namely, a window-dressing packaging of the \$25,000 offset or credit for that initial amount of running royalties otherwise due to Kirsch. The concept was to give such credit a name (such as "technology sharing"), but without real substance, to create the superficial appearance of consideration furnished by Comfortex, to make the credit more palatable to Kirsch. As it is, however, you have presumptuously given Kirsch a fully-paid license in perpetuity to all of Comfortex' issued, pending, and future patents and know-how, for the nominal sum of \$25,000, which sum was known by everyone involved in the settlement

conference to be intended only as a relief for a portion of Comfortex' lawsuit defense expenditures.

(DX 20 at N 011104).

Such issues delayed the filing of final settlement papers. The final agreement was executed on July 29 in four parts: the consent judgment, which contained recitals of validity and infringement; Comfortex' license to the '856 patent, with its graduated royalties; the technology sharing agreement, which licensed the Symphony-related patents to Kirsch in exchange for the credit against future royalties; and the joint motion to vacate Judge Enslin's June 3 order. In the end, Kirsch chose not to file the joint motion, citing the possibility that it might be taken as an affront and that they might someday appear before Judge Enslin again. The stipulated consent judgment was not entered until August 27, 1997, some sixty days after the conference with Magistrate Judge Rowland and some eighty days after Judge Enslin's order denying the preliminary injunction motion.

Prosecution of the Patents-in-Suit

Both of the patents-in-suit claim priority from the '981 application, filed March 10, 1994. Kirsch was still owned by Cooper at this time, but the sale to Newell closed during prosecution of these patents.

The original '981 application contained one independent product claim, eight dependent product claims, two independent method claims, and eight dependent method claims. The '981 application was examined by Examiner Blair Johnson and was initially prosecuted by in-house counsel Alan Thiel and outside counsel Ned Conley.

The '910 application was filed as a continuation-in-part of the '981 on August 7, 1995. The original '910 application contained one independent product claim, nine dependent product claims, one independent method claim, and three dependent method claims. The '910 was also examined by Mr. Johnson, and was initially prosecuted by Mr. Thiel and Mr. Conley.

The examiner issued a notice of allowance on claims 1-19 of the '981 application, as amended, on June 21, 1996. On August 2, 1996, Atty. A, a partner at the firm of -----, took over the prosecution of both the '981 and the '910. Two colleagues were working with Atty. A: Atty. B, an associate at -----; and Mr. C who joined ----- as a student law clerk in 1996 and was licensed as a registered patent agent in early 1997. FN16

FN16. Plaintiffs offered testimony from Mr. C in deposition form. Unfortunately, the court was not able to observe Mr. C's testimony in person. Even in transcript form, however, the testimony is marred by frequent protestations by Mr. C that he could not recall significant events that had transpired in prosecution of the patents-in-suit. The court was left with little confidence in Mr. C's ability to accurately recall the events in question, and has been forced to disregard Mr. C's testimony altogether.

Within several days of his appointment, and rather than allow the '981 to issue as a patent, Atty. A petitioned to amend the claims in the '981 pursuant to 37 C.F.R. s. 1.312 and petitioned to have additional prior art considered by the examiner. That additional prior art was the '856 design patent, which had not been previously submitted. The petition to submit the '856 patent was necessary in light of the examiner's allowance of the patent; at that stage of prosecution, further prior art can only be submitted by leave of the

supervisory patent examiner or by re-opening the prosecution altogether through a file wrapper continuation.

The supervisory patent examiner declined to accept the '856 Information Disclosure Statement ("IDS") on August 14, 1996. Five days after that ruling, Atty. A filed the '593 application as a continuation of the '981; the '856 IDS was submitted in the '593 prosecution within thirty days. The '981 was formally abandoned in favor of the '593 on December 4, 1996.

On January 3, 1997, the examiner issued a restriction requirement in the '593 application. The examiner required that the application be restricted to either product claims or method claims; the original '981 application and '593 continuation had claimed both. Kirsch elected to restrict the '593 application to the product claims.

The ensuing period of time proves central to the court's analysis of inequitable conduct allegations. The steps taken in the patent prosecution cannot be viewed in a vacuum; those steps must be viewed in light of the Comfortex litigation, which was proceeding at this same time. The following narrative will thus restate some findings of fact made above so as to set forth the appropriate context.

The period in question runs from June 3 to September 24, 1997. As of June 3, both the '550 and '00 prosecution were open; the examiner had not yet declared either application allowable. Mr. Judkins' deposition had been taken, and the parties had just completed briefing on Kirsch's preliminary injunction motion. Comfortex' motion for summary judgment had been filed and set on a briefing schedule, but Kirsch had not yet filed its response brief.

Judge Enslin issued his order denying the motion for preliminary injunction on June 3. As indicated above, that order cited "significant issues" pertaining to validity in light of the Comfortex rosette, Mr. Judkins' claim of priority, and the Faber reference. Kirsch filed a notice of appeal from this order on June 17. That same day, the examiner issued the notice of allowance in the '00 prosecution.

The parties met for the settlement conference before Magistrate Judge Rowland six days later, on June 23. The parties reached settlement that day, and those terms of settlement were made of record. The parties had not yet finalized terms of the technology sharing agreement, but had committed to doing so.

Three days after the settlement conference, Kirsch filed Information Disclosure Statements disclosing the rosette in both prosecutions. The IDS in the '00 prosecution was accompanied by a petition to allow consideration of the IDS; the notice of allowance had cut off Kirsch's right to submit prior art in that prosecution. That left only two options for submitting the rosette material: leave of the supervisory patent examiner, which Kirsch sought, or filing a file wrapper continuation that would re-open the examination. The petition for leave was never granted, and Kirsch never filed a continuation.

Disagreements over language delayed execution of formal settlement papers until July 29. No formal actions were taken in either prosecution during this time: the '00 was still in a state of allowance and the rosette IDS was still pending in the '550 prosecution.

On August 12, the examiner rejected a number of claims in the '550 prosecution as being unpatentable over the rosette. Claim 1, in particular, was rejected as being obvious in light of the rosette under 35 U.S.C. s. 103(a). These rejections were made final. The '00 remained in a state of allowance, as it had for nearly 60 days.

The consent judgment was filed in the Comfortex litigation on August 27.

Kirsch responded to the rosette rejection on September 15. The response was submitted under Rule 116, 37 C.F.R. s. 1.116, because it amended certain of the claims that had been rejected. The rejection of claim 1, however, was met only with argument asserting that the claim was valid; claim 1 was not amended in any fashion.

Kirsch paid the issue fee for the '0 patent one day after filing the 116 amendment in the '550 prosecution; this was also one day before the deadline for paying that fee. Kirsch also petitioned to advance the printing date of the patent "because applicants are aware of parties that are currently infringing the invention claimed in the present application." The '0 had been in a state of allowance for some 90 days before payment of the issue fee and the petition to advance the printing date.

The 116 amendment raised a number of arguments asserting that claim 1 was valid. First, the 116 amendment included and relied upon the consent judgment that had been entered approximately 20 days earlier. Although the consent judgment involved the '856 patent, Mr. C drew a correlation between the '856 patent and the pending '593 application as "part of the presently claimed invention." Mr. C then went on to rely upon the consent judgment as indicia of non-obviousness:

Comfortex initially denied infringement and asserted that the Ford ['856] design patent was invalid in view of the prior art. Comfortex, however, ultimately agreed that the Ford design patent *was* valid over the prior art, including the rosette, and the District Court entered a Consent Judgment *in favor of Kirsch on all claims and counterclaims* at issue in the litigation. This Judgment, accordingly, represents a holding that the Ford design patent is *valid* over all of the alleged prior art Comfortex offered, including the rosette.

(DX 31 at N 8415-16) (emphasis in original). At no time did Atty. A, Atty. B, or Mr. C disclose Judge Enslin's June 3, 1997 order denying Kirsch's motion for preliminary injunction to the examiner.

Second, Mr. C relied upon the license taken by Comfortex to the '856 patent as indicia of non-obviousness. Mr. C did not disclose the actual license to the PTO, however, because the license "contain[ed] confidential information" that was " 'favorable,' rather than 'material,' to patentability ... within the meaning of MPEP s. 724.03." (DX 31 at N 8426).

Third, Mr. C attempted to discredit the declarations by Mr. Markman and Mr. Spencer that had been submitted with the rosette IDS. Mr. C noted that "[b]oth declarants, coincidentally, spent about a week in Jamaica at Comfortex's expense shortly after signing their declarations." (DX 31 at N 8429 n. 12). Mr. Spencer and Mr. Markman had each earned the trips to Jamaica through an incentive program offered by Comfortex to all of its fabricators; such incentive programs are common in the window coverings industry.

The examiner issued a notice of allowability of the '593 application on September 22, less than seven days after the 116 amendment was filed. Kirsch paid the issue fee on September 24 and petitioned for advanced printing of the patent; the '593 application issued as the '550 patent on December 2, 1997.

The Instant Litigation and the Judkins-Ford Interference

Kirsch filed the instant suit on January 5, 1998, asserting that the Maestro shade infringed upon the '550

patent. An amended complaint was filed January 14 to add allegations of infringement upon the '0 patent. Kirsch's motion for expedited discovery in preparation for a preliminary injunction hearing was allowed, and the parties proceeded with discovery. A trial date was set for February 1999.

These proceedings had gone forward in the shadow of Mr. Judkins' still-pending request to the Board of Patent Appeals and Interferences to declare an interference between the utility patents and his pending application. That declaration came on January 15, 1999, when an interference was declared between Mr. Judkins' pending application number 756,282 (the " '282 application") and the '550 and '0 patents. Administrative Patent Judge ("APJ") Jameson Lee was appointed to resolve the interferences. Shortly after the declarations of interference, on January 19, the APJ issued orders to show cause why summary judgment should not be entered against Mr. Judkins. In light of these proceedings, this court reset the original February trial date for April to allow the interference some opportunity to run its course.

The APJ ruled in order of April 2 and April 5 that Mr. Judkins had shown cause why summary judgment should not be entered. These orders included opinions by the APJ whether claim 1 of each utility patent, which are also the claims in suit, were product-by-process claims or contained process limitations:

The APJ does not consider claim 1 of Ford's patent No. 5,962,550 [5,701,940], as a product-by-process claim or a claim including product-by-process limitation. The entire issue of product-by-process feature or claim is a red herring because even for product-by-process claims an invention cannot be distinguished on the basis of process features. The structural features are what all substantive analysis must be based [upon].

(PX 204 at 5, PX 205 at 5).

The court can only assume that the Judkins-Ford interference, having withstood summary judgment, has proceeded accordingly since April 5. This court proceeded to trial on April 12 and has received no additional information regarding the interference proceeding.

CONCLUSIONS OF LAW

Broadly speaking, this case presents three issues: whether the claims in suit are infringed by Springs' Maestro product; whether the patents in suit are invalid; and whether the patents in suit are unenforceable. The court will reach all three issues in this opinion. *Stratoflex*, 713 F.2d at 1540-41 ("when presented with patent validity and infringement issues, trial courts should ... decide both"). *See also* *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1559 (Fed.Cir.1983).

Where indicated throughout this analysis, the court has relied upon the Manual of Patent Examining Procedure (7th Ed. July, 1998) ("MPEP"). Though the MPEP does not have the force of law, "it is entitled to judicial notice as the agency's official interpretation of statutes and regulations, provided it is not in conflict with the statutes and regulations." *Refac Int'l, Ltd. v. Lotus Development Corp.*, 81 F.3d 1576, 1584, n. 2 (Fed.Cir.1996). *See also* *In re Portola Packaging, Inc.*, 110 F.3d 786, 788 (Fed.Cir.1997), *and* *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1180 n. 10 (Fed.Cir.1995).

CLAIM CONSTRUCTION

The first step in the analysis is construction of the claims in suit, which is a question of law to be decided by the court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391, 116 S.Ct. 1384, 134 L.Ed.2d 577

(1996). Claim construction is pertinent to both validity and infringement, as the relation of the invention to prior art and the relation of the patents in suit to the Maestro product hinge upon the scope of the claims. The same claim construction made here will be used in both validity and infringement analysis. *Kimberly-Clark Corp. v. Johnson & Johnson*, 745 F.2d 1437, 1449 (Fed.Cir.1984).

The primary issue of claim construction is whether the claims in suit are subject to a process limitation. Springs contends that the following italicized language, found in both claims, limits the scope of those claims to devices made by a strip method:

"[A] strip of shade material folded lengthwise to form an upper cell wall and a lower cell wall extending from a fold, each upper and lower cell wall having a free edge and a folded edge ..."

Plaintiffs characterize the italicized language as a structural definition rather than a process limitation and contend that the claims extend to any cell described in the claims, regardless of the method of manufacture.

This question derives from an ambiguity in the word "folded." Springs' interpretation would read "folded" as a past participle, requiring that at some stage of manufacture a strip of shade material be folded to create one free edge and one folded edge. Plaintiffs would read "folded" as an adjective, requiring merely that the final product contain a strip of material with a fold in it.

Claim interpretation must first be considered in light of intrinsic evidence such as the claim language, the other claims, the prior art, the prosecution history, and the specification. Extrinsic evidence will only be considered should the intrinsic evidence fail to resolve the issue. All other terms in the patents will be given their "ordinary and accustomed" meanings. *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1578 (Fed.Cir.1996).

The intrinsic evidence overwhelmingly supports Plaintiffs' reading of the claims. Independent claim 1 of each patent discloses a plurality of interconnected cells, at least one of which "comprises" the cell structure described. The grammatical structure of the claim suggests that the claim be read as a product; putting aside the language cited by Springs, all of the remaining constituent parts which the cell "comprises" are termed unmistakably in structural terms. It would be incongruous to interpret that last constituent part to be a process limitation.

Indeed, the '981 and '593 applications originally contained both method and product claims before the examiner required a restriction to one or the other. Plaintiffs elected to restrict the applications to product claims, and the amended claims apparently satisfied the examiner that they had done so.

Springs' reading is most plausible when taken out of the context of the patent as a whole. Placed in context, Springs' reading would find an anomalous process limitation among unambiguous product claims. This reading of the italicized language strains the language of the claim well beyond its most natural meaning.

This construction does not result in surplusage. The italicized language establishes that the strip of shade material has a fold in it; the second reference to a "fold" in the same clause merely specifies the relation of the upper and lower cell walls to the fold. Moreover, the italicized language specifies the type of material from which the cell is made and specifies the orientation ("lengthwise") of the fold in question, limitations which are not otherwise contained in the claim.

Athletic Alternatives, relied upon by Springs, is not to the contrary. The court in *Athletic Alternatives* held that "[w]here there is an equal choice between a broader and a narrower meaning of a claim, and there is an enabling disclosure that indicates that the applicant is at least entitled to a claim having the narrower meaning, ... the notice function of the claim [is] best served by adopting the narrower meaning." *Athletic Alternatives*, 73 F.3d at 1581. The court resorted to this rule only after exhausting the other claim construction tools available-neither the ordinary and accustomed meaning, the specification, the prosecution history, nor the doctrine of claim differentiation resolved the issue. This court has not been forced to such a rule of last resort. Moreover, there is no harm to the public notice function of s. 112 that drove the *Athletic Alternatives* decision where the proper claim construction is so easily discerned from review of the claim in context.

The court notes that the APJ in the *Judkins v. Ford* interference also concluded that these claims did not contain process limitations. Springs distinguishes the APJ's opinion on the ground that patents are given their broadest possible reading in interference proceedings, citing *DeGeorge v. Bernier*, 768 F.2d 1318, 1321-22 (Fed.Cir.1985). Nothing in the APJ's opinion indicates such a basis for his opinion; to the contrary, the APJ dismissed the process limitation argument altogether as a "red herring." This court has arrived at the same conclusion and concurs in the APJ's judgment.

The court therefore concludes that neither claim 1 of the '550 patent nor claim 1 of the '0 patent contain a process limitation. The court construes the claims-in-suit to extend to any cellular structure exhibiting the physical characteristics claimed therein.

INFRINGEMENT

Having construed the claims in suit, FN17 the court must determine whether the Maestro products infringe those claims, either literally or under the doctrine of equivalents; this determination is a question of fact. *Markman*, 517 U.S. at 391.

FN17. One contested issue of claim construction remains: the meaning of the term "member," as that term is used in the claims in suit. There is no assertion that this issue provides any ground to negate infringement; the issue is pertinent only to the question of validity and will be better addressed in that context below.

With respect to the '0 patent, the parties have stipulated that the only issue relative to infringement was the purported process limitation. That issue having been resolved, and no question of fact having been raised by the parties, the court finds as a matter of law that the Maestro shade infringes upon claim 1 of the '0 patent.

One additional issue is raised with respect to infringement upon claim 1 of the '550 patent. Springs denies that the Maestro products meet the following limitation of claim 1:

[d] said upper cell wall and said lower cell wall each having at least one attachment zone *on each side of a longitudinal center line* of each said cell wall for connecting said cell to an adjacent cell. [Emphasis added.]

Springs notes that the definition of "cell wall" in paragraph [b] of the claim FN18 defines the cell wall as the length of fabric running from the fold to the free edge; as a result, the full width of the tab must be included when determining the location of the "longitudinal center line." Springs argues that Plaintiffs failed to establish that the Maestro products contain "at least one attachment zone on each side of" this line.

FN18. "[A] strip of shade material folded lengthwise to form an upper cell wall and a lower cell wall extending from a fold, each upper and lower cell wall having a free edge and a folded edge."

Plaintiffs rely upon the testimony of Paul Josephson, manager of product development for Springs. Mr. Josephson testified as to the Maestro manufacturing process, which is laid out in patent application number 08/622,070 (the " '070 application"). Mr. Josephson testified that the dual glue lines employed by the Maestro process lie on either side of a line that is "in the center of the finished cell wall." Springs reads this testimony to indicate only that the glue lines straddle the center of the cell itself, and not necessarily a longitudinal center line that accounts for the width of the tab.

This argument is based upon a strained reading of Mr. Josephson's testimony. In that same line of questioning, the term "cell wall" had previously been defined as the distance from the fold to a free edge. This distance includes the full width of the tab. Figure 5 of the preferred embodiment, about which Mr. Josephson was testifying, indicates that the center line C, which runs between the parallel glue lines, is defined by the full panel width W. The evidence is clear that the Maestro products meet the limitation in paragraph [d]. The court therefore finds that the Maestro products infringe upon claim 1 of the '550 patent.

VALIDITY

A patent that has been duly issued by the PTO is presumed to be valid. 35 U.S.C. s. 282. As the party asserting invalidity, Springs bears the burden of persuasion on this issue at all times, and can only satisfy that burden with clear and convincing evidence. *Ryco*, 857 F.2d at 1423.

This statutory presumption of validity endures even if the challenging party introduces pertinent prior art that was not considered by the patent examiner. Such prior art might aid the challenging party in establishing invalidity, but in no way weakens, shifts, or destroys the burden of persuasion. *Ryco*, 857 F.2d at 1423; *Stratoflex*, 713 F.2d at 1534.

Separate and distinct from this statutory presumption is a presumption that the PTO, being a "qualified government agency," is "presumed to have properly done its job." *American Hoist*, 725 F.2d at 1359. *See also* *Polaroid Corp. v. Eastman Kodak Co.*, 789 F.2d 1556, 1560 (Fed.Cir.1986). Thus, where an assertion of invalidity relies only upon prior art that was considered by the PTO, the challenger bears an additional burden of establishing "that the PTO was wrong in its decision to grant the patent." *American Hoist*, 725 F.2d at 1360. Insofar as a challenger relies upon prior art not considered by the PTO, this deference does not come into play; but the statutory presumption of validity persists in full force and effect. *Id.*

Anticipation and Obviousness

Sections 102(g) and 103 of the Patent Code deny patentability to an invention that is either anticipated or rendered obvious by prior art. The doctrines of anticipation and obviousness are quite distinct; in fact, anticipation is a question of fact and obviousness is a question of law. Their respective analyses nonetheless fit together quite naturally, for the very differences between an invention and the prior art that negate anticipation will serve as the basis for an inquiry into obviousness. The court will thus take up the issues together here.

"Anticipation requires the disclosure in a single prior art reference of each element of the claim under

consideration." *Akzo N.V. v. U.S. Int'l Trade Comm'n*, 808 F.2d 1471, 1479 (Fed.Cir.1986); *W.L. Gore*, 721 F.2d at 1554. The standard for anticipation is strict: any difference between a prior art reference and the claim limitations will negate the possibility of anticipation and prompt an inquiry into obviousness.

Obviousness is based upon three predicate factual determinations: the scope and content of the prior art; the differences between the patented invention and the prior art; and the level of ordinary skill in the pertinent art. Where available, the court must also consider evidence of "secondary factors," such as commercial success and long-felt but unmet need, that "give light to the circumstances surrounding the origin of the subject matter sought to be patented" and therefore may be relevant as "indicia of obviousness or nonobviousness." *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966). The ultimate question of law is whether the patented subject matter would have been obvious to one of ordinary skill in the pertinent art at the time of invention. *Graham*, 383 U.S. at 17; *Kansas Jack, Inc. v. Kuhn*, 719 F.2d 1144, 1150 (Fed.Cir.1983).

Springs relies upon two prior art references to establish anticipation or obviousness: the Comfortex rosette and the Judkins T19 cell. These two references are structurally identical. There is an issue, however, whether the T19 cell may properly be considered as prior art at all; the court will resolve that issue before beginning the substantive anticipation and obviousness analyses.

The Judkins T19 Cell

Plaintiffs argue that the T19 cell cannot invalidate the patents in suit because Mr. Judkins failed to "appreciate" the invention and abandoned, suppressed, or concealed the invention. The "appreciation" argument, and the cases cited in support of it, stem from the conception requirement found in patent law. *See, e.g.*, *Kridl v. McCormick*, 105 F.3d 1446, 1449 (Fed.Cir.1997) ("Conception is the formation 'in the mind of the inventor of a definite and permanent idea of the complete and operative invention, as it is therefore to be applied in practice' "), *quoting* *Coleman v. Dines*, 754 F.2d 353, 359 (Fed.Cir.1985) *and* *Gunter v. Stream*, 573 F.2d 77, 80 (C.C.P.A.1978). Mr. Judkins openly stated at trial that he did not consider his T19 cell to be novel or patentable at the time of invention; Plaintiffs contend that this negates any conception on his part because he failed to "appreciate" his invention.

As mentioned above, the parties stipulated to a number of facts and issues prior to trial. Those stipulations reveal only two assertions by Plaintiffs with respect to Mr. Judkins: that there is insufficient corroboration to establish Mr. Judkins' claim of prior inventorship (Stipulations at para. 41); FN19 and that Mr. Judkins abandoned, suppressed, or concealed his invention (Stipulations at para. 42). The contention that Mr. Judkins lacked an appropriate "appreciation" of his invention does not fit within a fair reading of either stipulation. The court therefore finds that Plaintiffs have waived this argument.

FN19. Plaintiffs raised this argument in the Stipulation and in their pre-trial brief. Springs offered corroborating testimony from Mr. Alstadt and Mr. Coleman at trial, and Plaintiffs have apparently retreated from their earlier position; the issue is not addressed in Plaintiffs' Proposed Conclusions.

Moreover, this argument would not succeed on the merits. The "appreciation" requirement does not concern appreciation of a device's novelty or patentability; it concerns the realization that the invented device has come into existence. The two cases relied upon by Plaintiffs, *Heard v. Burton*, 51 C.C.P.A. 1502, 333 F.2d 239 (C.C.P.A.1964) and *Silvestri v. Grant*, 496 F.2d 593 (C.C.P.A.1974), involved bio-chemical inventions

where the inventors had arguably failed to even realize that their experiments had yielded new compounds. Plaintiffs' argument here keys on Mr. Judkins' open and earnest statement that he believes the physical structure of the T19 cell to be neither novel nor patentable; Mr. Judkins believes the value of the T19 invention to lie in the process used to create the cell.

Heard involved an interference between copending applications to patent a process for transforming low octane gasoline into high octane gasoline. The essential catalyst in the process was eta-alumina, a new form of alumina that could only be identified by its x-ray diffraction pattern. Upon evidence that the junior party had performed the process first, but had not thought to test for eta-alumina, and that the senior party had recognized the eta-alumina, the court granted priority to the senior party: "we consider it fatal to appellant's case that not until after appellees' filing date did Heard recognize that his 'ammonia-aged' catalyst ... 'contained any different form of alumina at all.'" *Heard*, 333 F.2d at 243. "We think that appellant's failure to recognize that he had produced a new form, regardless of what he called it, is indicative that he never conceived the invention prior to appellees' filing date." *Id.*

Silvestri involved copending applications to patent a new form of ampicillin. The court awarded priority to the junior party upon a showing, by sufficient evidence, that the junior party had "recognized and appreciated as a new form [the] compound corresponding to the compound defined by the court." *Silvestri*, 496 F.2d at 599.

The round pegs of *Heard* and *Silvestri* do not fit easily into the square hole presented by this case. This anticipation requirement was developed for a paradigm of test tube science in which results cannot readily be seen by the human eye; the court admits a certain skepticism to importing such a doctrine into the world of macroscopic inventions. Moreover, it is clear that Mr. Judkins recognized the creation of his T19 cell; he simply concluded, in his own mind, that the cell was neither novel nor patentable. That legal judgment, even if mistaken, does not negate the conclusion that he fully conceived of the physical structure that was his invention.

Plaintiffs further argue that Mr. Judkins abandoned, suppressed, or concealed his T19 cell. The doctrines of abandonment, suppression, and concealment are found in Section 102 of the Patent Code, which provides, in pertinent part:

A person shall be entitled to a patent unless -

* * *

(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it.

The principles underlying the doctrines of abandonment, suppression and concealment are inherently equitable in nature; as stated in the seminal case of *Mason v. Hepburn*, 13 App.D.C. 86 (1898):

The true ground of the doctrine ... lies in the policy and spirit of the patent laws and in the nature of the equity that arises in favor of him who gives the public the benefit of the knowledge of his invention, who expends his time, labor, and money in discovering, perfecting, and patenting, in perfect good faith, that which he and all others have been led to believe has never been discovered, by reason of the indifference, supineness, or wilful act of one who may, in fact, have discovered it long before.

The doctrines of abandonment, suppression, and concealment are thus meant to protect the early public disclosure that "is a linchpin of the patent system." *W.L. Gore*, 721 F.2d at 1550. Application of the doctrines is a question of law, *Lutzker v. Plet*, 843 F.2d 1364, 1366 (Fed.Cir.1988), *citing* *Brokaw v. Vogel*, 57 C.C.P.A. 1296, 429 F.2d 476, 480 (C.C.P.A.1970), but it must be stressed that "each case ... must be considered and decided on its own facts ." *Engelhardt v. Judd*, 54 C.C.P.A. 865, 369 F.2d 408, 411 (C.C.P.A.1966). *See also* *Shindelar v. Holdeman*, 628 F.2d 1337, 1341 (C.C.P.A.1980); *Horwath v. Lee*, 564 F.2d 948, 950 (C.C.P.A.1977).

Abandonment, suppression, or concealment must be intentional before it negates the possibility of anticipation. Excessive delay alone, however, may give rise to an inference of intent and shift the burden to the first inventor to rebut that inference. *Peeler v. Miller*, 535 F.2d 647, 655-56 (C.C.P.A.1976) (concurring opinion), *citing* *Young v. Dworkin*, 489 F.2d 1277, 1281 n. 3 (C.C.P.A.1974). Moreover, an inventor's stated "policy of not filing a patent application until his invention was ready to be released commercially" has been deemed "evidence of an intent to suppress or conceal the invention." *Lutzker*, 843 F.2d at 1368 (citations omitted).

"An inference of suppression or concealment may be overcome with evidence that the reason for the delay was to perfect the invention.... When, however, the delay is caused by working on refinements and improvements which are not reflected in the final patent application, the delay will not be excused. Further, when the activities which cause the delay go to commercialization of the invention, the delay will not be excused." *Lutzker*, 843 F.2d at 1367 (citations omitted). Where delay is caused by further experimentation, the invention is still in flux and not amenable to being claimed in an application; but where the invention has reached its finished form, no such impediment remains.

The '282 application, which is the first application disclosing the T19 process, was filed in March 1995—more than four years after reduction to practice in February 1991. Such a delay was not uncommon for Mr. Judkins, who generally cannot afford to file patent applications before obtaining financial backing for the invention. The court is certainly willing to conclude that Mr. Judkins made a proper and sensible business decision to delay filing during this time. However, the court must conclude that these circumstances raise an inference of intent to abandon, suppress or conceal the T19 invention. *See, e.g.*, *Lutzker*, 843 F.2d at 1367 (51 month delay gave rise to inference of intent to abandon, suppress or conceal); *Shindelar*, 628 F.2d at 1342 (29 month delay "is unreasonably long in an interference with a party who filed first"); *and* *Peeler*, 535 F.2d at 653-54 (48 month delay "is, prima facie, unreasonably long in an interference with a party who filed first"). This inference is further supported by Mr. Judkins' testimony that he regularly delayed filing until an invention had been sold.

The burden thus shifts to Springs to overcome this inference with evidence that the delay was caused by efforts to further test or perfect the invention. At most, Mr. Judkins' efforts to locate machinery, adhesive, and fabric suppliers might be considered such efforts; but because none of these efforts were ultimately reflected in the '282 application, the better view is that they did not. The original T19 drawing is still offered as a definitive depiction of the invention, which was sufficiently developed to be described in a draft patent application as early as June 1991. The invention was neither modified nor improved upon during those four years of delay.

Moreover, even if the efforts to locate machinery, adhesive, and fabric suppliers were considered further experimentation or testing, those efforts were complete by the end of 1992. The remaining 27 months were

filled only by efforts to secure financial backing for the T19 project.

The delay cannot be excused simply because Verosol held exclusive rights to the invention during a substantial portion of this period. Mr. Judkins remained the inventor and an application could have been filed in his name with an assignment to Verosol. Mr. Judkins ceded control to Verosol and is subsequently bound by Verosol's actions in this regard. The doctrines of abandonment, suppression and concealment would lose all force if they could be avoided by mere assignment to a third party.

Springs' reliance upon the numerous disclosures to industry executives is likewise unavailing. The disclosures were all subject to confidentiality agreements, and thus can hardly be considered contributions to the public knowledge. Again, the court is willing to conclude that Mr. Judkins' insistence upon confidentiality was a proper business practice; but the very need for confidentiality was occasioned only by the failure to file a patent application. There would have been no inconsistency in filing an application and confidentially marketing the invention while the application was pending.

The court believes that this case is governed by the decisions in *Lutzker* and *Young*. The inventor in *Lutzker* conceived of a canape maker in February 1976. The invention was reduced to practice in March 1976; but the reduction to practice was not revealed to the public until July 1980, and the patent application was not filed until November 1980. While admitting to a policy of withholding public disclosure until ready for commercial production, the inventor sought to justify the delay in filing by further activity related to the invention: the development of a recipe book to accompany the canape maker and development of a blister card to package the canape maker. The court flatly rejected this justification: "Since Lutzker's activities were directed to commercialization of his invention and since none of his activities were reflected in his patent application, such activities will not excuse the delay or rebut the presumption of suppression or concealment." *Lutzker*, 843 F.2d at 1368. The court further found that the "deliberate policy not to disclose his invention to the public until he is ready to go into production ... is evidence of an intent to suppress or conceal the invention under 35 U.S.C. s. 102(g)." *Id.*

The invention in *Young* was an expandable envelope formed from single sheets of foldable material. Young had conceived and reduced the invention to practice by November 1965, but did not apply for a patent at that time; his usual practice was "not [to] apply for a patent until I am positive that we can manufacture the item." *Young*, 489 F.2d at 1279.

Young ultimately filed his patent application some 27 months after conception and reduction to practice. Activity during those 27 months was directed solely to mass production of the invention. Initial attempts were made to modify existing machinery to produce the invention. After those attempts failed, Young traveled to trade shows to seek a suitable machinery supplier. Production machinery was obtained in December 1967 and brought online in January 1968. After an initial run on that machinery proved successful, Young filed his patent application.

In the interim, however, another party had filed a competing application. In finding that Young had abandoned, suppressed or concealed his invention, the court noted that none of the interim activity had involved experimentation with the invention itself: "The delay was not for purposes of perfecting appellant's invention—a critical point of distinction from other cases holding that delay as excusable...." *Young*, 489 F.2d at 1281, *citing* *Frey v. Wagner*, 24 C.C.P.A. 823, 87 F.2d 212 (C.C.P.A.1937) ("The law does not punish an inventor for attempting to perfect his process before he gives it to the public ... reasonable experimentation is frequently encouraged"). Instead, the delay in *Young* "resulted from appellant's intent to wait, without

disclosing his invention ... to determine whether the invention could be produced with his company's own equipment; then ... to locate a machine which would enable his company to manufacture it; and, finally ... to have a successful run on the new machine." *Id.*

The facts in *Lutzker* and *Young* parallel the facts here and compel the same conclusion. The 49-month delay in filing raises an inference of intent to abandon, suppress, or conceal the T19 invention; this inference is supported by Mr. Judkins' stated policy of delaying filing until he has gained financial backing. The inference shifts the burden to Springs to justify part of all of that delay with further efforts by Mr. Judkins to perfect the invention. The only justifications offered, however, relate to efforts by Mr. Judkins and Mr. Coleman to engineer and finance commercial production of the invention; these efforts do not constitute further experimentation or testing that might excuse part or all of the delay between reduction to practice and filing of the patent application. Without any grounds to excuse the delay, the court must conclude that the T19 cell was abandoned, suppressed, or concealed. The court therefore finds that the T19 cell cannot be an anticipatory reference under s. 102(g), and further consideration of the T19 cell will be limited to questions of obviousness.

Anticipation of the '0 Patent

The court thus turns to the issue of anticipation of the '0 patent and begins by considering the burden borne by Springs on this issue. At a minimum, Springs must establish anticipation by clear and convincing evidence; but Plaintiffs assert that the examiner has already decided this issue in their favor, and that Springs must therefore overcome an additional presumption that the examiner was correct in doing so.

The rosette was never formally accepted by the examiner in the '0 prosecution, nor does that patent reveal on its face that it was issued over the rosette. These facts would normally leave Plaintiffs without any basis to advance this argument. Plaintiffs rely, however, upon the disclosure in the parallel '550 prosecution to invoke the secondary presumption for the '0 patent. There is a certain logic to this argument, as the applications were pending simultaneously before the same examiner and descend from a common application. This case thus differs from *FMC Corp. v. Hennessy Indus., Inc.*, 836 F.2d 521 (Fed.Cir.1987), in which the relied-upon disclosure came in an unrelated prosecution that issued "long before" the patent in question. As a practical matter, is it not difficult to conclude that the examiner was personally aware of the rosette when he allowed the '0 patent to issue.

What is lacking, however, is any judgment by the examiner as to the impact of the rosette upon the subject matter of the '0 patent. This is particularly troubling in light of the fact that the '0 patent-including claim 1, which is asserted here-contains additional subject matter not found in the '550 patent. The deference to an examiner's expertise that underlies this secondary presumption is not warranted where the examiner has not had an opportunity to apply that expertise. Kirsch can hardly be heard to suggest otherwise where their own decision not to file a continuation of the '593 application denied the examiner such an opportunity. The court will therefore hold Springs to the standard of clear and convincing evidence mandated by the statutory presumption of patent validity, but will not apply the secondary presumption that would arise had the examiner issued over the rosette.

To resolve the question of anticipation, the court must first determine whether the rosette predated the '0 patent; the court must then determine whether the rosette met each limitation contained in claim 1 of the '0 patent. If so, then the rosette constitutes an anticipation; if not, then the differences found will form the basis for an inquiry into obviousness.

Springs has offered a large amount of evidence bearing upon this issue. That evidence included testimony of Alan Katz, the fabrication manager for Comfortex during the relevant time period; testimony of two Comfortex fabricators, Barry Markman and Ricky Spencer, who identified the illustrations in Appendix F as being accurate of rosettes used in 1991; and testimony of Tom Marusak, the president of Comfortex. In light of this evidence, the court finds that Springs has proven by clear and convincing evidence that the Comfortex rosette existed in the form shown in Appendix F, DX 84, and DX 85 no later than the end of 1991. The rosette thus predates the '0 patent, which was not reduced to practice until January 1993.

The court has relied upon much of that same testimony in determining whether the rosette met each of the limitations in claim 1 of the '0. The court has also considered two rosettes (one open and one closed) that were submitted as physical exhibits DX 84 and 85 at trial. Finally, the court has considered testimony that described the process for manufacturing the rosette; by following this testimony step by step, it is possible to discern the final shape of the rosette.

Plaintiffs assert only one difference between claim 1 of the '0 patent and the rosette: that the rosette is not a "cellular pleated shade member" because it is a "supplemental device" rather than a "constituent part of the whole." This argument turns upon the meaning of the term "member" in claim 1.

Being undefined in the claim or the specifications, the term is given its ordinary and customary meaning. The term must also be viewed in the context of the patent as a whole, and the court notes that the term appears only in this claim. Every other claim in the patent—including claims 2 through 10, which depend upon claim 1—claim a "cellular pleated shade." In order to give effect to the term "member" that is included in claim 1, the court will interpret the phrase "cellular pleated shade member" as distinct from "cellular pleated shade." The court further notes that claim 1 requires only that "at least one of the cells" in the "cellular pleated shade member" exhibit the structural characteristics described therein. Those characteristics require the presence of two adjacent cells, but the claim may still be met where as few as three cells are present.

The court concludes that the "cellular pleated shade member" described in claim 1 of the '0 patent is a sample of cellular pleated fabric that contains three or more cells, with at least one of those cells exhibiting the physical characteristics described in the claim. Claim 1 does not require the presence of an actual "cellular pleated shade"; claim 1 extends solely to the fabric portion of the shade.

Employing this construction of "cellular shade member," it is clear that the rosette cannot be distinguished from claim 1 on this ground. The rosette was assembled from cellular shade fabric and contained three or more cells, at least one of which contained the physical structure described. It is also clear that the rosette met all of the remaining claim limitations; Plaintiffs do not contest otherwise. The court therefore concludes that the rosette anticipated claim 1 of the '0 patent.

This result forecloses any obviousness inquiry with respect to the '0 patent; the court has found no differences between claim 1 of the '0 patent and the asserted prior art. *See, e.g.,* Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548 (Fed.Cir.1983) ("a disclosure that anticipates under s. 102 also renders the claim invalid under s. 103, for anticipation is the epitome of obviousness.... The reverse is not true, for the need to determine obviousness presumes anticipation is lacking"). Analysis with respect to the '0 patent is thus complete and the court will turn to the '550 patent.

Anticipation of the '550 Patent

The '550 patent is drafted in language similar to that of the '0 patent and, in particular, presents the same issue regarding construction of the term "member." The court will apply the same resolution of that issue reached above.

The '550 patent also claims the same dates of conception and reduction to practice as the '0 patent. For the reasons above, the court therefore finds that the rosette predated the '550 patent.

The court finds, however, that the rosette did not anticipate claim 1 of the '550 patent. The limitation in paragraph [d] of the claim requires that each cell wall be connected to an adjoining cell wall at no fewer than two attachment zones: "at least one attachment zone on each side of a longitudinal center line of each said cell wall." The rosette has only one attachment zone on each cell wall and thus fails to meet this limitation. The court finds, however, that the rosette meets all other limitations of the claim.

Having found that anticipation is lacking, the court must inquire into obviousness. That inquiry requires the factual determinations set forth in *Graham*, two of which have been resolved: Plaintiffs do not contest that the rosette is within the scope of pertinent art, and the court has just found that the only difference between the rosette and claim 1 of the '550 patent lies in the number of attachment zones between cells. The remaining factual predicate is the level of ordinary skill in the pertinent art.

This issue has not been a source of dispute between the parties. *See* Plaintiffs' Conclusions at para. 25 ("the parties do not contest whether the art relied upon by Springs is within the proper scope of the art, nor do they contest the level of skill in the art."). The court nonetheless feels bound to undertake an inquiry into it, for it is a question of fact that cannot be conceded by either side; the level of ordinary skill provides a standard against which to measure the obviousness of the invention. *See* *EWP Corp. v. Reliance Universal, Inc.*, 755 F.2d 898, 907 (Fed.Cir.1985) (trial court may examine issue of ordinary skill even where not contested by parties). The court is powerless to make an ultimate determination of obviousness without a concrete determination of ordinary skill.

The determination of ordinary skill might be drawn from the nature of the pertinent art and from the skill possessed by inventors involved in this case. The court will note in this regard, as it has elsewhere in this opinion, that the patents in suit contain only product claims covering the Accordia cell and shades incorporating that cell. Though the shape of the cell is a necessary by-product of the manufacturing process, and innovations in process are the key to new product development, process claims are not made in these patents. The court concludes, therefore, that the pertinent art is the art of cell structure, rather than manufacturing; and that the level of ordinary skill in that art does not include the engineering skills necessary to develop and implement manufacturing processes.

This result is consistent with the skill levels of the inventors involved in this case, at least insofar as their educational backgrounds are concerned. The T19 cell was conceived by Mr. Judkins, who completed 15 quarters of collegiate study but never graduated; he turned his attention to computing and toymaking before returning to the window coverings industry. The Accordia cell was conceived by Mr. Ford, who has a high school education and some college-level courses in economics. The record is silent as to invention of the Comfortex rosette, but the court may conclude from the examples of Mr. Judkins and Mr. Ford that the ordinary level of skill requires a high school education but does not require advanced technical or engineering training.

The one constant among the inventors, however, is their knowledge of existing products, patents, and prior art. Mr. Judkins went so far at one time as to physically carry copies of the Hunter Douglas patents with him for reference. This knowledge and familiarity was particularly necessary where the boundaries of innovation posed such a high risk of litigation. The court therefore finds that one of ordinary skill in the art of developing window covering design must possess a thorough knowledge of existing products, patents, and prior art. The court must therefore determine whether, on the whole, the claimed invention would have been obvious to one of such ordinary skill.

As indicated above, the only limitation which the rosette failed to meet in claim 1 of the '550 patent was the presence of multiple attachment zones, with at least one on each side of the longitudinal center of the cell wall. FN20 An inquiry into obviousness must address the patented invention as a whole, rather than as discrete parts; but that is a distinction without a difference where, as here, a single prior art reference meets every claim limitation but one. The court's inquiry must focus upon the one difference that exists and whether that adaptation would have been obvious.

FN20. The conclusion above that the T19 cell had been abandoned, suppressed, or concealed only disqualified it as an anticipatory reference under s. 102(g); abandonment does not disqualify a reference as prior art for purposes of obviousness under s. 103. However, because the rosette and the T19 cell are structurally identical, there is zero impact to addressing the T19 cell separately for purposes of obviousness.

Springs identifies two prior art references that teach the use of multiple glue lines to create multiple attachment zones. The first is Springs' own Crystalpleat product, which is illustrated in Appendix H. The Crystalpleat bears little relevance here: not only is it a double cell product, but the two lines of adhesive which it employs are located between two different pairs of cells. Crystalpleat does not teach the use of multiple glue lines between a single pair of cells.

The second reference, United States Patent No. 4,450,027 (the " '027 patent") is more pertinent here. The '027 patent, issued to Wendell B. Colson in May 1984, is one of the Hunter Douglas Duette patents. It teaches the use of multiple glue lines between the same pair of interconnected cells in a single cell shade. Its use of multiple glue lines was born of necessity: because each end of the original Duette strip is folded inward, leaving a discontinuous upper cell wall, each end piece requires a separate attachment zone to affix each portion of the upper cell wall to an adjacent cell.

Plaintiffs have introduced evidence of secondary considerations bearing upon obviousness. In particular, Plaintiffs point to the license and consent judgment accepted by Comfortex in the Michigan litigation; commercial success; long-felt need; and the failure of others to make the invention.

The weight afforded to such "secondary considerations" depends upon their nature and their relationship to the merits of the invention. *W.L. Gore*, 721 F.2d at 1555. *See also Stratoflex*, 713 F.2d at 1538. Secondary considerations "need not be necessarily conclusive on the obviousness/non-obviousness issue," but in any given case "may be the most pertinent, probative, and revealing evidence available to the decision maker in reaching a conclusion" as to obviousness. *Ashland Oil*, 776 F.2d at 306.

The court finds that the Comfortex license and consent judgment are of limited value as objective indicia of non-obviousness. The evidentiary value of such licenses and consent judgments lies in the assumption that

the concessions made therein by a competitor are against the competitor's best interests. This court has the benefit of reviewing Comfortex' objectives and incentives in agreeing to settle the Michigan litigation. This court also has the benefit of reviewing the technology sharing agreement that was entered into in connection with that settlement. On the whole, it is clear that Comfortex entered into settlement to avoid costs of future litigation, and did so on terms that were very favorable: Solo sales were allowed to continue at their anticipated levels, and the prospect of royalty payments on those sales was virtually eliminated by the technology sharing agreement. In light of these factors, the court finds the Comfortex license and consent judgment contain none of the characteristics which would normally give them weight in an obviousness inquiry.

Commercial success is a "strong factor" weighing on the side of nonobviousness. *Akzo*, 808 F.2d at 1481. However, a nexus must be shown between the invention and the commercial success "to prove that the commercial success is not ascribable to other irrelevant commercial and economic factors." *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 719 (Fed.Cir.1991).

Such a nexus is, in fact, rather weak in this case. The primary obstacle to commercializing new cellular shades was designing and building the machinery to fabricate them; as Mr. Judkins testified, the cellular structure itself was worthless unless a viable manufacturing process had also been identified. The '027 Duette patent is, in fact, a process patent setting forth the method of manufacture; the original '981 application that led to the patents in suit contained manufacturing method claims; and the '070 application for Springs' Maestro product contains both product and process claims.

The court finds that the primary obstacle to developing a single cell alternative to Duette was developing the manufacturing process. Secondary considerations of non-obviousness would thus bear much greater weight if the '550 patent were a process patent; but the patent is a product patent, and the claim in suit claims only the cellular structure itself. Any nexus to meeting long-felt but unmet need and to the commercial success of *Accordia* is weakened accordingly.

The secondary considerations relied upon by Plaintiffs thus carry little weight in the court's analysis. The *Graham* factors reveal that the use of dual glue lines-the only feature distinguishing claim 1 of the '550 patent from the rosette and the T19 cell-was taught in the prior art. The court therefore concludes that the rosette and the T19 cell would have rendered claim 1 of the '550 obvious to one of ordinary skill in the pertinent art in 1991.

ENFORCEABILITY

A patent which is otherwise valid may be rendered "unenforceable" if inequitable conduct is committed in obtaining the patent. The question of inequitable conduct is, at essence, "an equitable judgment [whether] ..., in light of all the particular circumstances, the conduct of the patentee is so culpable that its patent should not be enforced." *LaBounty Mfg., Inc. v. United States Int'l Trade Comm'n*, 958 F.2d 1066, 1070 (Fed.Cir.1992).

"Inequitable conduct resides in failure to disclose material information, or submission of false information, with intent to deceive." *Kingsdown Medical Consultants, Ltd. v. Hollister, Inc.*, 863 F.2d 867, 872 (Fed.Cir.1988). To make out a claim of inequitable conduct, Springs must establish-again by clear and convincing evidence-both a threshold level of materiality and a threshold level of intent. Assuming that both thresholds are met, the degrees of materiality and intent must then be weighed against each other:

"Questions of 'materiality' and 'culpability' are often interrelated and intertwined, so that a lesser showing of the materiality of the withheld information may suffice when an intentional scheme to defraud is established, whereas a greater showing of the materiality of withheld information would necessarily create an inference that its nondisclosure was 'wrongful.'" *American Hoist*, 724 F.2d at 1363, *quoting* Digital Eqmpt. Corp. v. Diamond, 653 F.2d 701, 716 (1st Cir.1981). *See also* Elk Corp. v. GAF Building Materials Corp., 168 F.3d 28, 32 (Fed.Cir. Feb.11, 1999) ("the more material the omission, the less the degree of intent that must be shown to reach a conclusion of inequitable conduct"); *Kimberly-Clark*, 745 F.2d at 1455.

A patent applicant "is under no duty to disclose 'all pertinent prior art or other pertinent information of which he is aware.'" *American Hoist*, 725 F.2d at 1362. Information need only be disclosed if it is material to the pending application. It is axiomatic, however, that close cases ought to be disclosed in favor of disclosure. *Critikon, Inc. v. Becton Dickinson Vascular Access*, 120 F.3d 1253, 1257 (Fed.Cir.1997), *quoting* *LaBounty*, 958 F.2d at 1076. *See also* MPEP s. 2001.04 (1998) ("Presumably, applicants will continue to submit information for consideration by the Office in applications rather than making and relying on their own determinations of materiality").

Rule 56 defines "material" information as information that:

... is not cumulative to information already of record or being made of record in the application, and

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

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

(i) Opposing an argument of patentability relied on by the Office, or

(ii) Asserting an argument of patentability.

37 C.F.R. s. 1.56(b) (1999). The regulation existed in this form at all times pertinent to this case. *See* *Baxter Int'l Inc. v. McGaw, Inc.*, 149 F.3d 1321, 1328 n. 3 (Fed.Cir.1998) (noting change to PTO regulation) *and* *Critikon*, 120 F.3d at 1257.

The intent element "is probably the most important of the elements to be considered in determining the existence of 'fraud.'" *W.L. Gore*, 721 F.2d at 1558. Intent need not be proven by direct evidence; indeed, circumstantial and inferential evidence is often the only evidence available from which intent can be discerned. *Elk*, 168 F.3d at 32; *Critikon*, 120 F.3d at 1256. Intent may thus be established by "a showing of acts the natural consequences of which are presumably intended by the actor." *Kansas Jack*, 719 F.2d at 1151. "Good faith and subjective intent, while they are to be considered, should not necessarily be made controlling. Under ordinary circumstances, the fact of misrepresentation coupled with proof that the party making it had knowledge of its falsity is enough to warrant drawing the inference that there was a fraudulent intent." *W.L. Gore*, 721 F.2d at 1558.

Gross negligence, standing alone, is not sufficient to satisfy the threshold level of intent. "[A] finding that a particular conduct amounts to 'gross negligence' does not of itself justify an inference of intent to deceive; the involved conduct, viewed in light of all the evidence, including evidence indicative of good faith, must indicate sufficient culpability to require a finding of intent to deceive." *Kingsdown*, 863 F.2d at 876.

Plaintiffs miss the mark in arguing that "there is no direct evidence of deceptive intent in this case" and relying upon "facially legitimate reasons for the various decisions that have been challenged by Springs." Plaintiffs' Proposed Conclusions at para. 73. "Facial legitimacy" does not immunize against a finding of inequitable conduct. Such a rule of law would allow fraudulent efforts to run rampant whenever the fortunate circumstance of a superficial justification presented itself. The inquiry into intent is much more probing; the court must pull back the sheep's clothing to check for wolves. The court has given careful consideration to all testimony bearing on the question of intent FN21 and has held Springs to the stringent standard of proof which they bear; but the court has not abandoned the inquiry simply for want of direct evidence of intent.

FN21. With the exception, as explained above, of Mr. C's deposition testimony.

Failure to Disclose Evidence of Hunter Douglas Litigation

As mentioned above, Hunter Douglas brought suit against Kirsch when some of the early Accordia samples exhibited a "flat back" that was claimed in a Duette patent. It was determined that the samples were aberrations, and the litigation was dismissed without prejudice after Kirsch committed to replace them with proper samples.

This litigation was never disclosed to the examiner. Springs now contends that this failure to disclose constituted inequitable conduct, particularly in light of Kirsch's assertion in prosecution that the tadpole cell filled a long-felt need for an alternative single cell shade that did not infringe existing patents. To make out this charge, Springs must establish the following by clear and convincing evidence: (1) that the information withheld was material; (2) that Kirsch was aware of the information and of its materiality; and (3) that the non-disclosure was coupled with an intent to deceive or mislead. *Fox Indus., Inc. v. Structural Preservation Systems, Inc.*, 922 F.2d 801, 803 (Fed.Cir.1991).

This assertion fails the first requirement of materiality. The litigation concerned anomalous samples that resulted from a bad production run; it is manifest that the charges had no bearing upon the true Accordia product. Indeed, Hunter Douglas' insistence that the infringing samples be replaced by true Accordia product implies that the Accordia product itself was non-infringing. The court cannot conclude that the Hunter Douglas litigation was material to patentability and, thus, cannot find inequitable conduct in failing to submit this information to the examiner.

Failure to Disclose Process Prior Art

Springs' second assertion also relates to a failure to disclose. As indicated above, the '981, '910, and '593 applications each contained process claims when they were initially filed. Those process claims were eventually restricted out of the applications, leaving only the product claims that ultimately issued as the patents in suit.

The Accordia process claims include folding a strip, gluing it closed to form a cell, cutting the strip to length, and stacking strips together. The Duette-style shades that Kirsch fabricated under license also employed a folding, gluing, and stacking process; that process was claimed in Hunter Douglas' U.S. Patent No. 5,228,936 (the "6 patent"). Springs now contends that Kirsch should have disclosed both the Hunter Douglas "6 patent and Kirsch's own prior use of the "6 process in prosecuting the process claims that were

initially included in the '981, '910, and '593 applications.

Springs' allegations do not concern claims that issued in either of the patents in suit; but it is clear that, in an appropriate case, inequitable conduct committed in prosecution of one patent may render related patents unenforceable as well. *See, e.g., Baxter Int'l, Inc. v. McGaw, Inc.*, 149 F.3d 1321 (Fed.Cir.1998); *Consolidated Alum. Corp. v. Foseco Int'l Ltd.*, 910 F.2d 804 (Fed.Cir.1990); *Precision Instrument Mfg. Co. v. Automotive Maintenance Machinery Co.*, 324 U.S. 806, 65 S.Ct. 993, 89 L.Ed. 1381 (1945).

In *Baxter*, the original patent application (the " '414 application") was subject to a four-way restriction requirement; the applicant filed three divisional applications and prosecuted all four, which ultimately issued as four distinct patents. It was later determined that a material prior art reference had been intentionally withheld in the '414 prosecution, and the trial court held all of the patents unenforceable by reason of that inequitable conduct.

The Federal Circuit reversed as to one of the four patents:

[T]he claims in the '414 application to which the omitted reference was material were not antecedents to the claims of the '554 patent. The claims of the '554 patent were drawn to an entirely different invention that, as the PTO pointed out in its restriction requirement, should never have been included in the '414 application in the first place. The '554 is not unenforceable due to inequitable conduct merely because its claims were improperly included in an application with other patentable inventions that were ultimately held unenforceable for inequitable conduct.

Baxter, 149 F.3d at 1332. "[W]here the claims are subsequently separated from those tainted by inequitable conduct through a divisional application, and where the issued claims have no relation to the omitted prior art, the patent issued from the divisional application will not also be unenforceable due to inequitable conduct committed in the parent application." *Id.*

Baxter governs the result here. The process prior art which Springs relies upon here is material only to the initial process claims. The patents in suit are pure product claims which do not count the process claims as antecedents: the process prior art is not related to the product claims; and insofar as the process claims were restricted out of these applications at the examiner's behest, they must be considered "entirely different inventions." This case thus lacks the "intimate relation" among related patents that can spread the taint of inequitable conduct. *See Baxter*, 149 F.3d at 1332. This case also lacks the "immediate and necessary relation" between the inequitable conduct and the patents asserted in *Consolidated Aluminum*, as well as the collusion among parties that was present in *Precision Instrument*. The court therefore finds that allegations of inequitable conduct relating to the process claims are insufficient as a matter of law to render the product patents in suit unenforceable.

Failure to Submit Judkins Material

The third allegation of inequitable conduct revolves around Mr. Judkins' claim of prior invention. Mr. Judkins' claim first came to light in connection with the Comfortex litigation. He was identified on a witness list prepared by Comfortex, though that list did not disclose the substance of his testimony. His declaration claiming prior invention was attached to Comfortex' opposition to the preliminary injunction motion, but that declaration provided neither specific dates of invention nor any indication that his claims could be corroborated. As lead counsel for Kirsch, Atty. A was aware of this witness list and declaration at about the

time that they were served in the Comfortex litigation.

Atty. A personally deposed Mr. Judkins on May 12, 1997. That deposition yielded some 140 pages of testimony and sixteen exhibits, including the T19 drawing itself. Mr. Judkins testified at this deposition that he had disclosed his invention to Mr. Coleman, Mr. Alstadt, and representatives from Springs, Comfortex, and Blind Design. In subsequent proceedings, however, Comfortex did not offer corroborating evidence to verify any of these alleged disclosures.

Atty. A did not submit any information regarding Mr. Judkins to the examiner. Indeed, even the bare fact that Mr. Judkins was claiming priority was not disclosed by Kirsch; the examiner was alerted to that fact by Mr. Alstadt, who wrote the examiner to inform him of Mr. Judkins' pending request to initiate an interference proceeding. Springs now asserts that Atty. A committed inequitable conduct by failing to inform the examiner of Mr. Judkins' claim.

Kirsch contends that it would have been improper for Atty. A to inject the issue of Mr. Judkins' claim into the *ex parte* prosecution where Mr. Judkins also sought to provoke an adversary interference proceeding. The parties presented conflicting testimony as to proper procedure in such a circumstance. Plaintiffs' expert, Mr. Newman, testified that the proper procedure was to reserve the issue of priority for the interference proceeding rather than introduce it into the prosecution. Atty. A testified that this was, in fact, his own understanding as well. The MPEP is surprisingly silent on the subject. Springs' expert, Mr. Nusbaum, testified that the priority issue would be resolved in the interference context, but that it was nonetheless proper-and necessary, as a matter of candor-to disclose information relative to priority in the prosecution.

The court notes that the interference between Mr. Judkins' '282 application and the patent in suit was not declared until nearly two years after his deposition in May 1997. It is an odd premise to deny disclosure to the examiner solely on grounds of a pending request for interference, as opposed to an interference that has been declared. In this case, the '593 and '910 applications matured into patents before a decision was made on Mr. Judkins' request for interference; had that request been denied, his claim of prior invention would have found no forum at all. There was also the possibility that Mr. Judkins' claims did not read on the Plaintiffs' pending claims; indeed, Atty. A purportedly believed that the invention in question was the Finale product rather than the T19 cell. The Finale product clearly did not anticipate the patents in suit and thus could not trigger an interference between the competing applications. If Atty. A had truly believed that Mr. Judkins was testifying about the Finale product at his May 1997 deposition, he can hardly claim that it was proper to defer Mr. Judkins' claim to an undeclared interference proceeding.

Plaintiffs are clearly correct, however, that Mr. Judkins' claim had not been corroborated. Comfortex did not offer evidence corroborating Mr. Judkins' claim, even after Kirsch raised the issue of non-corroboration and after Mr. Judkins testified in his deposition that he disclosed the T19 cell to, among others, Mr. Alstadt, Mr. Coleman, and Comfortex itself. The only information available to Atty. A was the testimony identifying witnesses who could potentially corroborate the claim; Atty. A had no evidence that would actually corroborate the claim. Mr. Judkins' own testimony was insufficient as a matter of law to establish prior invention, *Price v. Symsek*, 988 F.2d 1187, 1194-95 (Fed.Cir.1993)("an inventor's testimony, standing alone, is insufficient to prove conception-some form of corroboration must be shown"), and was thus not "material" within the meaning of Rule 56.

Springs argues that, given Mr. Judkins' testimony, Atty. A bore an affirmative duty to investigate the possibility of corroboration. The court finds no such requirement in the duty of candor. Indeed, Rule 56 does

not even require that the patent applicant conduct a prior art search, though applicants are "encouraged" to do so. 37 C.F.R. s. 1.56(a). The essence of candor is good faith and fair dealing; the patent applicant is expected only to be forthright in sharing his or her pertinent knowledge with the examiner. While an intentional cultivation of ignorance may constitute inequitable conduct, applicants are not conscripted to serve as an investigative arm of the PTO.

The court therefore concludes that the uncorroborated information available to Atty. A was not material to patentability, and that Atty. A bore no duty to either disclose it in uncorroborated form or to seek corroboration for it. The information thus fails to present the minimum threshold of materiality necessary for finding inequitable conduct.

The Comfortex Litigation and the 116 Amendment

Springs' final set of allegations regarding inequitable conduct targets the 116 amendment filed in September 1997. Atty. B played a role in drafting this amendment, and Atty. A maintained supervisory authority for it; but it was primarily drafted by Mr. C, and was submitted to the examiner over his signature. The court will thus refer to Mr. C as the author of the amendment.

The 116 amendment was submitted, in pertinent part, to overcome the examiner's final rejection of claim 1 of the '550 patent over the rosette. To do so, Mr. C relied heavily upon proceedings in the Comfortex litigation. It is worth noting that the Comfortex litigation did not involve either of the patents in suit, and would thus normally be of limited relevance. However, insofar as Mr. C purposefully and distinctly relied upon the litigation to assert arguments of patentability, information that refutes or is inconsistent with those arguments is material under Rule 56(b)(2)(ii).

Mr. C submitted the Comfortex consent judgment to the examiner and argued that it "represent[ed] a holding" of validity. Mr. C also informed the examiner that Comfortex had taken a license to the '856 patent, but did not submit the license itself because its terms were "confidential." Mr. C did not submit or otherwise inform the examiner of either the June 3 order denying preliminary injunction or the technology sharing agreement.FN22

FN22. Springs also argues that Mr. C's attack on the veracity of Mr. Markman and Mr. Spencer, whose declarations in support of the rosette were included in the IDS, was inequitable in light of the failure to fully disclose the financial interests of Kirsch's own declarants. It is clear, however, that Mr. Ford was a named inventor on the applications and that Mr. Fritz was identified as the director of marketing for Kirsch; the court therefore finds no merit in this argument.

The parties addressed the consent judgment extensively at trial. Argument was largely reduced to questions of semantics-in particular, whether the consent judgment "represent[ed] a holding" and whether entry of judgment in favor of Kirsch on "all claims and counterclaims" constituted a judicial determination on the issue of validity. The ultimate inquiry underlying both lines of argument is whether Mr. C misrepresented or misconstrued the content and effect of the consent judgment. The fact that Mr. C submitted the consent judgment itself is much more significant than any difference of opinion regarding the import of its language. So long as the consent judgment itself was available to the examiner, Mr. C was entitled to put forth his own interpretation of the document and its significance. The court thus finds no culpable conduct in describing the consent judgment as a "holding" of validity.

Mr. C was also justified in withholding the Comfortex license agreement. The exact circumstance here is contemplated by MPEP s.s. 724.02 and 724.03. Section 724.02 provides a procedure for submitting trade secrets, proprietary material, and material subject to a protective order. Section 724.03 provides that this procedure should be invoked only in limited circumstances:

The types of materials or information contemplated for submission under MPEP s. 724.02 include information "material to patentability" but does not include information favorable to patentability.... Neither 37 C.F.R. s. 1.56 not 1.555 require the disclosure of information favorable to patentability.... Such information should not be submitted in accordance with MPEP s. 724.02. If any trade secret, proprietary, and/or protective order materials are submitted in amendments, arguments in favor of patentability, or affidavits under 37 C.F.R. s. 1.131 or 1.132, they will be made of record in the file and will not be given any special status.

MPEP s. 724.03. In particular, this section indicates that the procedures for submitting sensitive materials are not to be invoked where the material is only favorable to patentability; the preference is clearly that such material not be submitted at all. Presumably, this reveals a distaste for the burden of maintaining materials in confidence, and thus limits the procedure to materials which are most pertinent in an examination-materials which tend to negate patentability.

The broader proposition noted in this section is that, consistent with the duty of candor, material favorable to patentability need not be disclosed to the PTO at all. Springs thus misses the mark in arguing that the Comfortex license should have been submitted simply because an outline of its terms was made of public record during the litigation. The basis for non-disclosure under s. 724.03 is not that the license was confidential, but that it was favorable to patentability.FN23 Standing alone, the license was favorable evidence of patentability. Non-disclosure of the license was thus permissible under s. 724.03.

FN23. Moreover, strict confidentiality is not required under s. 724.03; the final draft of the license agreement may be considered "proprietary" even though an outline of the agreement was publicly available.

Far more significant than any misconstruction of the consent judgment or withholding of the license agreement is the failure to disclose the June 3 order. Plaintiffs make several arguments to excuse the failure to disclose, none of which prevail.

First, Plaintiffs maintain that the order found only "significant issues" pertaining to validity, and made no finding that any particular prior art reference invalidated the '856 patent. This argument sells Rule 56 and its definition of "materiality" short. Information need not establish invalidity to be "material"; information which simply "refutes" or "is inconsistent with" arguments made to the examiner must also be disclosed. The June 3 order was a determination by a United States District Court Judge that, in some combination, the Faber reference, the Judkins claim of prior invention, and the rosette had overcome the statutory presumption that the '856 patent was valid. This order is flatly inconsistent with Kirsch's arguments in prosecution that the patents in suit were valid over those same prior art references, and is thus "material" within the meaning of Rule 56(b)(2).

Second, Plaintiffs argue that the "substance" of the order was fully disclosed, since each of the prior art references cited therein was before the examiner. This argument ignores the significance of the order, which

goes far beyond its recitations of prior art; its significance lies in Judge Enslin's own determination that the recited prior art was sufficient to overcome the statutory presumption of validity. This determination is material in its own right, and was never submitted or disclosed to the examiner.

Finally, Plaintiffs argue that the order was superseded by subsequent events-particularly, the admission of validity by Comfortex and the consent judgment. On its face, this argument fails to account for the period after entry of Judge Enslin's order on June 3 and the subsequent events relied upon to supersede it; the patents in suit were being prosecuted at the time and Kirsch bore a continuing duty to disclose when the order was issued.

Moreover, insofar as this argument relies upon the August 25 consent judgment and the recital of validity contained therein, the argument must be viewed in light of the circumstances in which Comfortex agreed to the consent judgment. As explained above, the consent judgment posed no detriment to Comfortex: Solo sales were allowed to continue at their anticipated levels, and the credit granted in the technology sharing agreement reasonably ensured that Comfortex would pay no royalties at all on those sales. Kirsch conceded both of these points to induce Comfortex into settlement. The harm to Comfortex' self-interest that would elevate the consent judgment and the admission of validity to relevant evidence of patentability is thus absent here. Kirsch has little basis to rely upon the consent judgment and its admission of validity to "supersede" Judge Enslin's order where they were obtained only in exchange for licensing and financial concessions that undermine their very significance.

The pertinent disclosures to the PTO were decidedly one-sided. Kirsch submitted only the consent judgment and indicated only that Comfortex had taken a license to the '856 patent; a full recounting of events would have included both the June 3 order and an indication that the '856 license was tied to an offsetting technology sharing agreement. The limited disclosures painted a deceptively rosy picture of the litigation; without benefit of the June 3 order and the technology sharing agreement, it would appear that Comfortex simply admitted liability, consented to judgment, and negotiated a license to the '856 patent. To the contrary, Comfortex prevailed in the only substantive proceedings and agreed to settle only after receiving favorable licensing terms and financial concessions. Kirsch effectively purchased the cooperation necessary from Comfortex to generate a consent judgment and a license in favor of the '856 patent, and then ignored the true nature of the proceedings in order to portray the judgment and license as a vindication of the patent. Such a pattern of manipulation is strong evidence of an intentional scheme to mislead or deceive the examiner. The court finds that Kirsch intended to mislead or deceive the examiner by withholding the June 3 order and the technology sharing agreement while relying upon both the consent judgment and the '856 license as evidence favorable to patentability.

The degree of intent must be balanced against the degree of materiality to determine whether, on whole, the conduct was so culpable as to render the '550 patent unenforceable. This balancing must be performed in light of the context in which the information was withheld: that is, in a calculated effort to overcome a final rejection that had already been issued by the examiner. The final rejection was withdrawn only on the basis of the 116 amendment; the deception inherent in the amendment must therefore be considered highly material to the prosecution. The level of intent was also very high, rising to a deliberate scheme to obtain favorable evidence for purposes of misleading the examiner. The court therefore concludes that the deliberate withholding of the June 3 order and technology sharing agreement and the corresponding reliance upon the consent judgment and license constituted inequitable conduct in the '550 prosecution. The court therefore finds that the '550 patent is wholly unenforceable.

Enforceability of the '0 Patent

The inequitable conduct outlined above occurred solely in prosecution of the '550 patent. The '0 patent is not directly implicated: by virtue of the June 17 allowance, and the inability to gain consideration of the rosette IDS, the '0 patent sat in a state of allowance during these events.

It is well established, however, that inequitable conduct committed in the prosecution of one patent may taint other patents so as to render them unenforceable as well. *See, e.g., Baxter, Precision Instrument, and Keystone Drilling, supra*. Generally, an "intimate relation" between the patents or an "immediate and necessary relation" between the inequitable conduct and the second patent is required to render the second patent unenforceable. *Keystone Drilling*, 290 U.S. at 245; *Baxter*, 149 F.3d at 1332.

Both patents in this case descend from the '981 application. Both patents relate to the invention that Mr. Ford conceived in January 1993, and both patents claim similar subject matter. Mr. C himself relied upon the relation between the '550 utility patent and the '856 design patent in the 116 amendment; the '550 and '0 utility patents are related just as intimately, if not more so. Plaintiff's own expert, Mr. Newman, opined at trial that if the '550 patent were found to be unenforceable, it would follow that the '0 patent is also unenforceable. *See Tr.* at 859-860.

The court finds that the '550 and '0 patent are so intimately related that the inequitable conduct committed in the '550 prosecution taints the '0 patent. The court therefore concludes that the '0 patent is unenforceable.

CONCLUSION

For the reasons stated above, the court finds as follows:

- > The Springs Maestro and Bali Solitaire products infringe upon claim 1 of United States Patent No. 5,692,550.
- > The Springs Maestro and Bali Solitaire products infringe upon claim 1 of United States Patent No. 5,701,940.
- > Claim 1 of United States Patent No. 5,692,550 was obvious in light of the prior art, and is thus invalid under 35 U.S.C. s. 103.
- > Claim 1 of United States Patent No. 5,701,940 was anticipated by the Comfortex rosette, and is thus invalid under 35 U.S.C. s. 102(g).
- > United States Patents Nos. 5,692,550 and 5,701,940 are unenforceable in light of inequitable conduct committed before the Patent and Trademark Office.

The court therefore enters judgment in favor of Defendant Springs Window Fashion Division, Inc. and against Plaintiffs Newell Window Furnishings, Inc. and Kirsch, Inc.

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Appendix A

Hunter Douglas Duette

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Appendix B

U.S. Patent Nos. 5,692,550 **and** 5,701,940

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Appendix C

U.S. Patent No. Design 352,856

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Appendix D

Springs Maestro

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Appendix E

Comfortex Symphony

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Appendix F

Comfortex Rosette

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Appendix G

The Judkins T19 Drawing

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Appendix H

Springs Crystalpleat

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