IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
PATENT TRIAL AND APPEAL BOARD

In Re Patent of:	David E. Chen et al.
U.S. Patent No.:	7,144,296
Issue Date:	December 5, 2006
App. No.:	11/053,211
Filing Date:	February 7, 2005
Priority Date:	May 31, 2002
Title:	Attachable Breast Form Enhancement System

DECLARATION OF KARIN YNGVESDOTTER

I, Karin Yngvesdotter, declare as follows:

1. I am over 18 years of age. I have personal knowledge of the facts stated in this Declaration and could testify competently to them if asked to do so.

Personal Background

2. I received a degree in Science, Studentexamen, from Polhem School in Lund, Sweden in 1986. I also received an Associate Degree in Applied Science (A.A.S.) from the Fashion Institute of Technology in New York City in 1991, where I completed coursework in patternmaking, draping, sewing, art, garment sizing, and the history of fashion. I also attended non-credit pattern making classes at the Parson School of Design in New York City.

3. After I graduated, I worked as a designer of intimate apparel at a variety of clothing manufacturers, including Wondermaid, Natori and Juliara. I gained extensive experience in creating original designs, overseeing all aspects of

production, and fitting garments.

4. I have worked as a freelance consultant since 1998, working directly with apparel and intimate apparel companies on all aspects of intimate apparel technical design, including pattern making, fitting, specifications, production execution, and grading. As a consultant I have also been hired to develop original bra prototypes, advise on components for bras, create patterns for bra designs, draft construction instructions, and fit bras.

5. I am currently an Adjunct (Full) Professor at the Pratt Institute (Brooklyn, New York), in the Fashion Design Department. I have taught at the Pratt Institute for sixteen years.

6. As a professor at the Pratt Institute I have taught, and currently teach courses in the design and construction of women's apparel, including the design and fit of brassieres. I am also Curriculum Integrator Coordinator in the Fashion Department at Pratt. In that role I have developed and continue to develop content for courses that teach about the design and construction of garments, which has also included the design, construction and fit of brassieres.

7. As a result of my teaching and education experience, I have developed significant expertise in the design, construction and fit of women's intimate apparel. This includes general background knowledge of the history and evolution of women's intimate apparel over time, the materials used in the construction of

intimate apparel, and the design of intimate apparel.

8. The cases in which I have been called to testify at trial or in deposition in the previous four years are: *Victoria's Secret Stores Brand Management, Inc., v. Maidenform*, LLC, 2:14-cv-164; and *Chico's FAS, Inc. v. 1654754 Ontario, Inc*., 2:13-cv-792.

9. My full CV is attached as Exhibit A.

Background Discussion

10. I have been retained by Panties Plus, Inc. as an expert to provide technical analysis of prior art references and prepare this declaration, as well as provide live deposition testimony. In my capacity as an expert, I was asked to offer my opinion on the validity of Claims 1, 2, and 5 of U.S. Patent No. 7,144,296 ("the '296 Patent"). My expertise extends to the technical areas of the '296 patent, by virtue of, at minimum, my extensive experience and knowledge of the women's intimate apparel industry as well as my knowledge of the design and history of women's intimate apparel as set forth below.

11. I receive compensation of $300/hour for my time working on this matter plus reasonable expenses, and $450/hour for offering live testimony and related travel. My compensation is in no way related to the outcome of this petition

12. In preparation of this declaration, I have reviewed the '296 Patent along with the prior art references, the file history of the '296 Patent as well as the

following materials listed below:

- U.S. Patent No. 7,144,296 ("the '296 Patent")
- Prosecution History of the '296 Patent (App. Ser. No. 11/053,211)
- Prosecution History of the '720 Patent (App. Ser. No. 10/159,251)
- CA Application No. 2,101,509 ("Luckman")
- U.S. Patent No. 6,645,042 ("Davis")
- U.S. Patent No. 6,231,424 ("Valentin")
- U.S. Patent No. 5,755,611 ("Noble")
- U.S. Patent No. 6,857,932 ("Chen")
- U.S. Patent No. 5,922,023 ("Mulligan")
- U.S. Patent No. 3,196,878 ("Hedu")
- Memorandum of Points and Authorities in Support of Bragel International, Inc.'s Motion for Summary Judgment of Infringement, Bragel International, Inc. v. Styles For Less, Inc., et al., 8:15-cv-01756-R (8/11/2016);
- Rebuttal Expert Report of Frances Harder on the Validity of U.S. Patent No. 7,144,296, Bragel International, Inc. v. Styles For Less, Inc., et al., 8:15-cv-01756-R (8/22/2016).
- Deposition Transcript of Frances Harder, Bragel International, Inc. v. Charlotte Russe, Inc., et al., 2:15-cv-08364-R (9/21/2016).
- Claim Construction Order in *Bragel International, Inc. v. Telebrands Corporation*, Case No. 05-01141, Jan. 18, 2007.

13. I also reviewed the following prior art references which represent the state of the art prior to the invention date of the '296 Patent:

U.S. Patent No. 6,852,001
U.S. Patent No. 6,758,720
U.S. Patent No. 2,793,369 ("Panighini")
U.S. Patent No. 2,579,365 ("Conde")
U.S. Patent No. 5,584,883 ("Wild")
U.S. Patent No. 3,196,878 ("Hedu")
U.S. Patent No. 6,283,820 ("Huang")
U.S. Patent No. 2,869,553 ("D'Or")
U.S. Patent No. 2,728,079 ("Williams I")
U.S. Patent No. 3,297,036 ("Williams II")
U.S. Patent No. 2,882,905 ("Barg")
U.S. Patent No. 5,538,502 ("Johnstone")

U.S. Patent No. 6,200,195 ("Furuno")
U.S. Patent No. 4,553,550 ("Hattori")
U.S. Patent No. 2,553,825 ("Langs I")
U.S. Patent No. 2,596,567 ("Langs II")

Person of Ordinary Skill in the Art

14. I understand that validity of a patent is to be analyzed from the perspective of "one of ordinary skill in the art," which I understand is a hypothetical person considered to have the skill level and knowledge of a particular field related to an alleged invention claimed in a patent. I further understand that this hypothetical skilled artisan is presumed to have before him or her all of the relevant prior art. I understand that this "hypothetical person" can be more than one person or a team of people of different disciplines. The discussions in this declaration are intended to convey the state of the art and the knowledge of a person of ordinary skill in the art generally prior to the invention date of the patent application that issued as the respective '296 patent.

15. With respect to United States Patent No. 7,144,296 (the "'296 Patent") patent claims will be analyzed from the perspective of one of ordinary skill in the art from May 31, 2002 (the patent's earliest "priority date"), the filing date of U.S. Patent No. 6,758,720, which I understand to be the parent of the '296 patent. I understand that if the invention is proven to be before the priority date, then validity will be analyzed from the perspective of one of ordinary skill in the art as of the invention date.

16. Based on my education and experience, I am very familiar with the level of knowledge that one of ordinary skill would have possessed during the relevant period of time. In my opinion, in view of the subject matter of the '296 Patent, a person of ordinary skill in the art would have knowledge and at least one year's experience in the design, manufacture, and evolution over time of women's brassieres. As of the priority date of the '296 Patent, I have been a person of ordinary skill in the art as defined above.

17. I am aware that Bragel has taken the position in the concurrent district court litigations that one of skill in the art "has at least 7-10 years of experience in designing apparel, including bras and other intimate apparel, or 4-5 years of experience in developing intimate apparel plus a mechanical or chemical engineering degree". I disagree with this definition, and find it unnecessarily restrictive and inconsistent with the straightforward, commonplace nature of the technology as used in the intimate apparel field at issue in this case, and the broad nature of the '296 Patent claims. I agree with the conclusion reached by U.S. Magistrate Judge John D. Love in another case involving Bragel and its Nubra product[1], that due to the voluminous prior art in the area of bras "there is no specialized skill involved in the art" of improvements to existing bras or other breast coverings using well-known prior art components. I note that all of the

[1] *Randi Black v. Ce Soir Lingerie Co., Inc.* et al., 2:06-cv-544, Memorandum and Opinion and Order (Dkt. 194)(TX E.D.)

elements of the challenged claims incorporate well-known prior art components, and Bragel did not describe, much less claim, any improvements that would require an engineering background of any sort in the '296 Patent.

18. In reaching this opinion as to the qualifications of the hypothetical person of ordinary skill in the art, I have considered the types of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the invention, and the educational level of workers in the field.

Applicable Law

19. I will not offer opinions of law as I am not an attorney. However, I have been informed of several principles concerning patent validity, which I used in arriving at my opinions. I understand that an issued patent is presumed to be valid and that invalidity must be proven by clear and convincing evidence, and that is the standard I have used throughout my report. Further, I understand that each patent claim is considered separately for purposes of invalidity.

Obviousness

20. I am informed that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. I am informed that for an invention to be patentable it must not have been obvious to a person of ordinary skill in the pertinent art at the time the invention

was made. I am informed that when a patent claim simply rearranges prior art elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, such a combination is obvious. Moreover, I am informed that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination is likely to be obvious unless the combination yields an unpredictable result. I am informed that a corollary principle is that when the prior art teaches away from combining certain known elements, a claim directed to a discovery of a successful means of combining them is more likely to be non-obvious. However, I am informed that hindsight must not be used when comparing prior art to the patented invention for obviousness.

21. I am informed that when a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one if reasonably related to the particular problem or issue faced by the inventor. If one of ordinary skill in the art can implement a predictable variation, such a variation is likely unpatentable. For the same reason, if a technique has been used to improve one device, and one of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. One

question to consider is whether the improvement is more than the predictable use of prior art elements according to their established functions.

22. I am informed that it may often be necessary in a validity analysis to consider the scope and content of the prior art, the differences, if any, between the claims of the patent and the prior art, the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by one of ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. Motivation, however, need not be explicit. Teachings, suggestions, and motivations may be found in the nature of the problem to be solved, or within the knowledge of a person with ordinary skill in the art including inferences and creative steps that a person of ordinary skill would employ. The fact that a combination was obvious to try may demonstrate that the combination itself was obvious.

23. I am informed that a validity analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim; it is appropriate to take account of the inferences and creative steps that one of ordinary skill in the art would employ. I understand that a person of ordinary skill is also a person of ordinary creativity.

24. I understand that a claim composed of several elements is not proved

obvious merely by demonstrating that each element was, independently, known in the prior art. I understand that it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. Therefore, I am informed, in determining whether a claimed combination is obvious, the correct question is whether the combination was obvious to one of ordinary skill in the art. I am told that one of the ways in which subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims.

25. I understand that any need or problem known in the field of endeavor at the time of alleged invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.

26. I am informed that one should not assume that a person of ordinary skill in the art attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem. Instead, I understand that since familiar items may have obvious uses beyond their primary purposes, in many cases one of ordinary skill in the art will be able to fit the teachings of multiple prior art references together like pieces of a puzzle.

27. I am informed that, when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions,

one of ordinary skill in the art has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense, I understand that, in such an instance, the fact that the combination was obvious to try may show that the combination is obvious.

28. I am informed that, when determining whether a claimed combination is obvious, the correct analysis is not whether one of ordinary skill in the art, writing on a blank slate, would have chosen the particular combination of elements described in the claim. Instead, I understand the correct analysis considers whether one of ordinary skill, facing the wide range of needs created by developments in the field of endeavor, would have seen a benefit to selecting the combination claimed.

29. I am informed that there are objective indications that an invention would not have been obvious. These indications include commercial success of the products covered by the patent claims, long-felt need for the invention, failed attempts by others to make the invention, copying of the invention by others in the field, unexpected results achieved by the invention, praise of the invention by the alleged infringer or others in the field, the taking of licenses under the patent by others, expressions of surprise by experts and those skilled in the art at the making of this invention, and whether the patentee proceeded contrary to accepted wisdom

of the prior art.

30. Although the presence of these objective indications may suggest the invention was not obvious, there must be a nexus between them and the invention covered by the patent claims.

Conception and Reduction to Practice

31. With respect to standards for conception and reduction to practice, I am informed and understand that 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 to be applied in practice, and reduction to practice occurs either as of the filing of the patent or when the invention was actually made and shown to work for its intended purpose. I further understand that priority of invention is established by determining the dates of conception and reduction to practice for the alleged invention and requires that the inventor was reasonably diligent in reducing the invention to practice. Finally, I understand with respect to these definitions that a patent claim is, or would be determined to be, invalid if it was first made or invented by someone else.

32. I also understand that there are two ways to reduce to practice an invention. First, I understand that an inventor may complete an actual reduction to practice by making a physical embodiment of the invention which includes all limitations of the claim; the embodiment must be shown to have performed as

intended. I understand that an actual reduction to practice requires sufficient independent corroboration. Second, I understand that an inventor may complete a constructive reduction to practice by filing a patent application with a suitably complete disclosure of the claimed invention. I understand that a constructive reduction to practice may result in simultaneous conception and reduction to practice.

33. I understand that if A reduced an invention to practice before B did, then priority goes to A, unless B can show either (i) that B was the first to conceive the invention and that B exercised reasonable diligence in later reducing that invention to practice, or (ii) that A abandoned, suppressed, or concealed the invention. I understand that "reasonable diligence" means that B worked continuously on reducing the invention to practice, but that interruptions necessitated by the everyday problems and obligations of B or others working with B do not prevent a finding of diligence. I understand that the time period for which B must show diligence is from a date just prior to A's conception to the date of B's reduction to practice.

Claim Construction Issues

34. Analysis of the validity or obviousness of a claim must depend on the proper interpretation of the claim elements. I am informed that a claim construction order has issued in an earlier case involving another Bragel patent that

is a parent to the '296 Patent and has similar claim elements. I will perform the analysis of the claims with respect to the prior art under the claim construction for "pressure sensitive adhesive layer" adopted by the Court in that case.[2]

35. All other claim terms are given their plain and ordinary meaning, unless otherwise indicated.

Overview of the '296 Patent

36. The '296 Patent is a continuation of U.S. Patent Nos. 6,852,001 (filed March 15, 2004), and 6,758,720 (filed May 31, 2002). Claims 1, 2, and 5 are directed to backless, strapless breast forms that are attached to a wearer's breasts via a pressure sensitive adhesive layer.

37. The '296 Patent relates generally to an "attachable breast form enhancement system", and more specifically, to a "pair of breast forms" which "have a re-usable pressure sensitive adhesive layer for adjoining to a user's skin and are adjoined together by a connector". ('296 Patent, 1:15-22). The connector allows the user to "customize the amount of breast cleavage" to provide a desired push-up enhancement effect. ('296 Patent, 1:22-24). The patent explains that "women who… desire larger, more shapely breasts" typically choose between two

[2] In *Bragel International, Inc., v. Telebrands Corp.*, Case No. cv05-00141 (C.D. Ca.), District Judge Morrow adopted Bragel's proposed construction and construed the term "pressure sensitive adhesive layer" as it appears in claim 7 of Bragel's U.S. Pat. No. 6,852,001 to mean "a layer of any type of pressure sensitive adhesive that is suitable for removably attaching a breast form to a user's skin." *Markman* Order of January 17, 2007 at pg. 26. I note that the language in claim 7 of Bragel's '001 Patent is nearly identical to the language in challenged claim 1 of the '296 patent.

options: 1) "using rudimentary externally worn articles, such as foam pads" or 2) breast enhancement surgery. ('296 Patent, 1:27-33). Because of the risks of surgery and the health dangers associated with breast implants themselves, "women…opt to use one of the many types of externally worn articles" known in the prior art. ('296 Patent, 1:33-41). These "articles" can be "worn for the purpose of either enhancing or replacing human breasts" that have been removed as part of medical treatment, and are referred to as "breast forms". ('296 Patent, 1:45-49).

38. According to the '296 Patent, breast forms in the prior art included a "wide range of breast enhancers, breast inserts, and breast prostheses." ('296 Patent, 1:49-51). Breast forms "made from a silicone gel material that is completely encased by plastic material" were known to "feel natural to the user" and were thus "popular". ('296 Patent, 1:51-56). At the same time as women desired breast forms for their enhancement qualities, there were problems with traditional bras, particularly while women wore a "backless dress or a halter top", for example. ('296 Patent, 1:63-65). Thus, there were "backless, strapless bras" in the prior art, including those that "used non-permanent adhesives, such as a disposable double-sided tape, to secure the bra to the user". ('296 Patent, 1:65 – 2:1). But the "known backless, strapless bras" suffered from two purported problems: 1) those with "full-size cups" were "not designed to easily accommodate a breast form," and 2) they did not "use an adhesive that allows the user to easily

remove and re-reuse the bra". ('296 Patent, 2:4-7).

39. In response to these purported problems with known backless, strapless bras, the patent suggests a "system that provides the benefits of a breast form, yet also the benefits of a backless, strapless bra". ('296 Patent, 2:9-10). To improve performance, the system would include a "permanent and re-usable adhesive that allows the user to position the breast forms…without concern of…shifting from that position". ('296 Patent, 2:12-14). Additionally, the "system should have means for…enhancing breast cleavage". ('296 Patent, 2:14-16).

40. The patent describes breast forms that ostensibly incorporates those suggested improvements. Fig. 1 of the '296 Patent illustrates a "breast form system having a pair of breast forms adjoined by a connector" according to the purported invention of the '296 Patent.

41. The patent confirms that the "breast forms have an interior surface with a pressure sensitive adhesive layer that adjoins to the user's breasts". ('296 Patent, 2:66-3:1). This adhesive layer "can be a permanently grown pressure sensitive adhesive" that adheres more strongly to the breast forms than they cohere to the user's breasts when worn. ('296 Patent, 3:1-4). A connector, which "adjoins the separated breast forms by attaching to the inner sides of the breast forms" can be used to pull together the user's breasts to create the desired cleavage effect. ('296 Patent, 3:4-5). By adding the "pressure sensitive adhesive layer" and the

"connector", the "breast forms system allows a user to eliminate the use of traditional bras". ('296 Patent, 3:10-11). Instead, the user would attach the breast forms directly to their breasts and use the connector to both adjoin them and create a cleavage effect as desired. ('296 Patent, 3:10-25). The patent confirms "the placement of the connector…will impact the degree of cleavage and push up enhancement". ('296 Patent, 1:54-56).

42. Ultimately, the '296 Patent purports to provide "a replacement for a traditional bra", where "the user is able to customize the amount of breast cleavage and push-up enhancement". ('296 Patent, 8:49-52). The '296 Patent's "breast forms system" can be worn by the user "without needing any other type of bra". ('296 Patent, 8:55-57).

43. What purportedly distinguishes the invention from then "currently available bras and enhancement systems" is "[t]he presence of both the pressure sensitive adhesive layer and the connector" on the breast forms. ('296 Patent, 8:57-60). But those two purportedly novel characteristics were well-known in the prior art, and one of ordinary skill would have found their inclusion on existing breast forms an obvious approach to addressing the purported problems or needs in the prior art.

Claims 1, 2 and 5 of the '296 Patent

44. Generally, claim 1 of the '296 Patent is directed to a pair of breast

forms, comprising a volume of silicone gel encased between thermoplastic film material, with a pressure sensitive adhesive layer on a concave interior surface of the breast form to secure the breast form to the user's breast, and a connector on the inner sides of each breast form so that the breast forms can be adjoined together ('296 Patent, Claim 1). Claims 2 and 5 depend from independent claim 1, and add that the connectors are adapted to cooperatively engage and are permanently attached to the breast forms, respectively. ('296 Patent, Claims 2,5).

45. I am informed that the validity of the '296 Patent has never been challenged in a USPTO proceeding. As will be discussed further in this declaration, it is my belief that any purported novel features of the claimed breast forms were expressly disclosed in the prior art, and including those features in the claimed breast forms was obvious.

Prosecution History of the '296 Patent

46. The '296 Patent is a continuation of U.S. Patent Nos. 6,852,001 and 6,758,720, and is purportedly entitled to the priority date of the parent patent application, which was filed May 31, 2002. For purposes of this declaration I will use May 31, 2002 as the priority date.

47. The '296 Patent was filed on February 7, 2005, but is purportedly entitled to the priority date of the parent application (issued as U.S. Pat. No. 6,758,720), May 31, 2002. I have reviewed the prosecution history of the '296

Patent and its parent, the '720 patent. During the prosecution history of the '720 Patent, the Examiner rejected most of the claims as anticipated by Noble because Noble disclosed a backless, strapless bra with a pressure sensitive adhesive layer, and a connector as broadly claimed.[3] The Examiner also took Official Notice that "it is well known that silicone gel materials are used in bra pads to add bulk to the wearer's breasts."[4] In response, the applicant cancelled all the claims, and added a new narrower claim that added additional limitations of (1) "a volume of silicone gel encased between thermoplastic film material;" and (2) "substantially the entire interior surface comprises a pressure sensitive adhesive layer disposed thereon for adjoining the breast forms to the user's breast."[5] The applicant also submitted a Declaration of Commercial Success, Long Felt Need, and Copying.[6] The Examiner allowed the new claim because none of the cited references taught pressure sensitive adhesive layer substantially covering the entire interior surface of the breast forms edge to edge.[7] This limitation is not part of the challenged claims 1, 2 and 5.

48. I have also considered the prior art identified by the Examiner during the prosecution of the '296 Patent, and note that the Examiner had rejected the challenged claims (1, 2, and 5) while noting that a "dual breast form brassiere

[3] 12/31/2003 Final Rejection at pgs. 4-5.
[4] Id. at pg. 7.
[5] 2/5/2004 Amendment.
[6] 2/10/2004 Declaration of Commercial Success, Long Felt Need, and Copying
[7] 2/27/2004 Notice of Allowance.

system with a connector…wherein the forms are adhesively connected to the wearer's breast" was known in the art.[8] Furthermore, the Examiner concluded that it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize "known silicone and thermoplastic film structures" and combine those structures with the known "dual breast form brassiere system with a connector" to create a "connected breast form system configuration".[9]

49. In response, the applicants did not dispute that all the elements of the pending claims were disclosed in the prior art. Rather, applicants argued that there was no motivation to combine the references relied upon to arrive at the claimed invention. In particular, applicants argued that the two prior art patents relied upon by the Examiner were "directed to two very different purposes".[10] The main distinction between the two, according to the applicants, was that one of the references was directed to a breast prosthesis, and that there was no suggestion in that reference that such a prosthesis "could be used as part of a bra".[11] Applicants further argued that a prosthesis was "typically only needed to replace one breast" and there would be no motivation to "modify said prosthesis to include two prosthesis linked together with a connector."[12] Furthermore, applicants argued that a prosthesis "is intended to fit over the void created by the removal" of a woman's

[8] 11/01/2005 Office Action at pg. 2.
[9] *Id*.
[10] 1/23/2006 Amendment in Response to Office Action at pg. 4.
[11] *Id*. at pg. 5.
[12] *Id*.

breast, and thus would not be considered by one of skill in the art when looking to create a bra to fit over a "natural female breast".[13]

50. As an initial matter, I disagree with the argument that one of skill in the art would not be motivated to combine a dual breast form system containing a connector with a silicone encased in thermoplastic structure to arrive at the claimed invention. I understand that the law of obviousness was modified by Supreme Court and other appellate decisions that post-date the allowance of the '296 Patent, and that under the current law, a showing that a reference contains a suggestion to combine that reference with another reference is no longer necessary. I further understand that common sense can supply the motivation to combine two references, and therefore understand that the '296 Patent was allowed over the prior art references relied upon by the Examiner based on a more stringent standard than the one in force today.

51. In my opinion, one of skill in the art would have been motivated to combine an existing dual breast form system with a connector with "known silicone and thermoplastic structures" even if those structures were in the form of a breast prosthesis. For one, both bras and prosthesis are directed to technology in the same field of endeavor, and one of skill in the art would have had a familiarity with varied means and approaches to enhancing the appearance of a woman's

[13] *Id*.

breasts, irrespective of whether those breasts were natural, surgically enhanced, or had been removed due to a medical condition.

52. Furthermore, it would have been expected that materials, such as silicone encased in thermoplastic, that were known to be compatible with a woman's breast area, such as in the form of a prosthesis, would also be functional when used in connection with covering and enhancing the appearance of women's breasts.

53. In addition, one of skill in the art would have been familiar with women who required the removal of both breasts due to a medical condition, and would have expected those women to use prostheses to replace both breasts, rather than a single breast. Accordingly, the idea of using a connector to combine two prostheses would have been known and obvious to one of skill in the art, and therefore would provide additional motivation to combine a dual breast form system with a connector with a breast prosthesis.

54. Finally, the '296 Patent explicitly suggests that "[i]n addition to enhancing an existing breast, externally worn articles are designed to replace a female human breast that has been surgically removed." ('296 Patent, 1:44-47). The '296 Patent specifically defines "breast forms" to include "a wide range of breast enhancers, breast inserts, and breast prostheses." ('296 Patent, 1:47-51). Thus, a person of ordinary skill in the art looking to provide cleavage and push-up

enhancement would have simply added a well-known generic connector utilized in a variety of bras and brassieres, such as Noble's or Hedu's, to adjoin the silicone prostheses of Mulligan together. The knowledge generally available to one of ordinary skill in the art is all that's necessary to modify Mulligan and make the desired combination.

55. As shown below, the prosecution history for the '296 Patent did not address other potential combinations that would have been obvious to one of skill in the art, including combinations of known dual breast form systems with connectors and known silicone encased in thermoplastic structures containing adhesives that were adapted for use with women's breasts that were not prostheses. Likewise, the prosecution history does not indicate that the Examiner considered potential combinations, which would have been obvious to one of skill in the art, consisting of adding a known connector to known dual silicone encased in thermoplastic breast forms that included an adhesive layer to create the claimed breast forms.

State of the Prior Art Before the Invention Date of the '296 Patent

56. The purported invention of the '296 Patent is simple and the prior art in this technological field is voluminous. There are multiple references that teach each and every element of the claims. As discussed in more detail below, the backless, strapless bras with center connectors were well known before the

invention date of the '296 Patent, the silicone breast forms with pressure sensitive adhesive were also known, center connectors of various types were known, pressure sensitive adhesives were known, and the use of silicone in bra design was known. The purported invention of the '296 Patent is simply a combination of trivial and familiar elements with each performing the same exact function they had been known to perform, thus yielding no more than one would expect from such a combination.

Backless Strapless Bras Were Known

U.S. Patent No. 6,231,424 ("Valentin")

57. Valentin describes a strapless, backless bra, consisting of two cups with a center "bridge connector" and side tabs for securing the bra to the wearer. The disclosed bra has adhesive on the side tabs for attachment to the skin. As with other backless, strapless bras, the disclosed bra is meant to enhance and support the breasts and can also be worn with "revealing clothing" as described in column 1, line 53. The bra cups can be made with or without an underwire for added support. The center connector can be permanent as disclosed in Figs. 1 and 16, or separate as disclosed in Figures 7, 72, 74, and as described in column 3, lines 20-35.

U.S. Patent No. 5,755,611 ("Noble")

58. Noble describes a backless, strapless bra comprising two soft cups, which can "pressed against the body" (Col. 2, line 53) and thereby adhered to the

body without the need for hooks and straps. Noble discloses a bra designed to support a woman's bust and also to be worn with clothing that a common bra with backs and straps would show through, such as a dress or blouse with a plunging low back neck. The cups of Noble's bra are also meant to look natural, since they are soft. (Noble, Abstract, "a soft natural breast shape").

59. In Noble, the adhesive bra cups are meant to be worn several times. They have "renewer adhesive to permit the device to be worn repeatedly". (Abstract). Noble also discloses that the cups can be connected in the center with a band (Figs. 18, 50), or worn separately. I note that during prosecution of one of the parent applications to the '296 Patent, the Examiner argued that Noble alone anticipated Bragel's invention and taught each and every element of the pending claim under consideration. In response, applicants noted that Noble could not anticipate since it did not disclose "a volume of silicone gel encased between thermoplastic film material".[14] The only other limitation the applicant argued was not present in Noble was one that required the pressure sensitive adhesive layer to cover "substantially the entire interior surface" of the breast form. I understand that there is no such limitation in the '296 Patent, and that under the claim construction that Bragel argued for and that was adopted in the earlier case discussed in para. 34 above, Noble's disclosure of adhesive in the form of double-

[14] 2/5/2004 Amendment in Reply to Office Action for Pat. Appln. No. 10/159,251 at pg. 6.

sided tape meets the limitation of a pressure sensitive adhesive layer as claimed in the '296 Patent.

60. Accordingly, the only element missing from Noble is the use of silicone rather than a fabric for or as the cups of the backless, strapless bra. While Bragel has argued that Noble "contained no suggestion or motivation for being altered to having a volume of silicone encased by thermoplastic film material,"[15] I understand that such a suggestion or motivation is no longer necessary to show that the reference would have been considered by one of skill in the art as part of an obvious combination of known elements. Regardless, I agree that Noble discloses all of the elements of the challenged claims but for the use of silicone encased in thermoplastic material as the substance which the breast forms are made of. At the same time, my opinion is that it would have been obvious, for the reasons set forth below, to combine Noble with known silicone encased in thermoplastic material breast or prostheses as exemplified by Mulligan in order to create the claimed breast form system of the '296 Patent.

U.S. Patent No. 2,728,079 ("Williams I")

61. Williams I describes a backless, strapless bra that is attached to the breast with pressure sensitive adhesive covering the entire inside of the cup. It is made flat, as to be inexpensive, but because of the bias grain the cloth in the cup is

[15] *Id*. at 7.

cut on, the bottom rounded edges can be stretched and shaped.

U.S. Patent No. 3,297,036 ("Williams II")

62. Williams II describes a backless, strapless bra attached to the body with pressure sensitive adhesive. The bra consists of a molded cup that has a stretchable outer layer sewn on to one edge of the cup. This outer layer wraps around the cup and fastens on the other side with a hook. The outer layer is flat, but because of its crescent shape and the elastic material it is made of, it shapes around the cup when it is wrapped around the cup and fastened. The bra adheres to the skin of the breast with a strip of pressure sensitive adhesive, that runs along the inside edge of the cup.

U.S. Patent No. 2,869,553 ("D'Or")

63. D'Or describes a backless, strapless bra, adhering to the breast with a pressure sensitive adhesive. The cups start out flat, but by folding the cup on specific lines, it is shaped into a cup shape, while the wearer attaches it to the skin of the breast. It is designed to give lift and support without the need of shoulder or back straps, and is disclosed as disposable.

Silicone Breast Forms With Pressure Sensitive Adhesive Were Known

CA Application No. 2,101,509 ("Luckman")

64. Luckman discloses "an external breast enhancement" acting "as a breast enlargement device, to be attached to the chest, over the natural female

breasts." (Luckman, Abstract, p. 2). Luckman's breast enhancement device proposes an improvement over foam rubber fillers or pads to provide an improved construction comprising silicone cups with adhesive for longer wear that has a "more natural appearance and feel to the woman wearing it." (*Id*., p.3)

U.S. Patent No. 6,857,932 ("Chen")

65. Chen issued on February 22, 2005 from an Application filed on February 12, 2002 which is before the purported invention date of the '296 Patent, i.e., May 31, 2002. I am informed that Chen is prior art to the '296 Patent because it shares one common inventor – David E. Chen. However, the '296 Patent includes two additional inventors, namely Jasper Chang and Alice Chang. Accordingly, the Chen reference has a different inventive entity because not all inventors are the same.

66. Chen discloses an *identical* breast form to the '296 Patent that is "encased with fabric laminated thermoplastic film" except the connector. (Chen, 1:5-9). The Chen breast form includes "a permanently grown, re-usable pressure-sensitive adhesive (PSA) backing on an interior surface of the breast form" for attaching to user's breasts, thus preventing the breast form moving from its desired position. (*Id*., 2:19-26, 27-32). According to Chen, such breast form "looks like a natural human breast when worn and feels natural to the user." (*Id*., 1:35-40).

U.S. Patent No. 5,922,023 ("Mulligan")

67. Mulligan describes silicone "shell-like bodies" (Claim 1) in the form of breasts, in other words: cups/breast forms in the form of a prosthesis. The cup is enclosed "within a synthetic resin film" (Claim 1) and has a permanent adhesive on the inside, covering more or less of the inside of the cup, which attaches to the skin and can be used repeatedly. Since the cups are made of silicone, a soft gel-like material, the prosthesis has great flexibility and moves with the body, therefore creating less stress on the adhesive as disclosed in column 2, line 55.

U.S. Patent No. 6,200,195 ("Furuno")

68. Furuno describes a silicone breast pad, with permanent adhesive covering the inside of the pad. The adhesive is reusable and washable, so the breast pad can be used repeatedly. The breast pad is meant to be thin, to prevent bulk. Furuno gives a range for the minimum size of diameter, so that it is large enough to cover the entire nipple area, but does not give a maximum diameter so one of skill would understand that the disclosed silicone pad could cover the entire breast

U.S. Patent No. 6,283,820 ("Huang")

69. Huang describes a three-layer bra pad that is more resilient to wash and wear, therefore less likely to be deformed during use. Huang's pad can also be sewn into garments without damaging the liquid filling in the center of the cup. The pad's middle layer is filled with a liquid and is then encased between the inner and outer layer as they are adhered to each other. Because the liquid layer is

encased between the outer and inner layer it cannot move around or shift within the pad. One of skill in the art would understand that the liquid middle layer could consist of silicone gel, since silicone was a well-known material used in connection with adding bulk and enhancing a woman's bust while retaining a soft, natural look and feel.

Pressure Sensitive Adhesives For Use With Breasts Were Known

U.S. Patent No. 5,584,883 ("Wild")

70. Wild describes a silicone breast prosthesis that has a permanent adhesive on the inside of the cup, so that the cup can be attached to the skin and used repeatedly.

U.S. Patent No. 4,553,550 ("Hattori")

71. Hattori describes a breast covering in the form of a backless, strapless bra that adheres to the skin of the wearer by a reusable pressure sensitive adhesive on the inside of the breast covering. Hattori's breast covering can be small enough to only cover the nipple or large enough to cover the entire breast. The breast covering can be made of many different soft and natural-feeling materials, and one of skill in the art would understand that silicone could be an option for the material of the breast covering.

The Use of Center Connectors in Bras Was Known

U.S. Patent No. 3,196,878 ("Hedu")

72. Connectors of various types were also known for their use in bras to provide a cleavage and lift enhancing effect. Hedu describes a bra with two cups, a band attached to the sides of the cups, that go around the torso in back. The cups have channels (shown in Figs. 1, 10, 12) and an adjustable center front connector is placed in between them. The connector can be adjusted and closed in different positions, which gives adjustability to the placement on the body of the cups in the bra. "The relative angular positions formed by the cups of a brassiere may more accurately conform to the physique of the individual wearer, thus yielding greater comfort and better support to the user." (Col. 1, lines 26-29). One type of a connector disclosed by Hedu is a "clasp assembly" connector. One of skill in the art would readily understand from this disclosure that the connector could be used to adjust the support and lift provided by a bra to a woman's breasts.

U.S. Patent No. 5,538,502 ("Johnstone")

73. Johnstone describes a garment used instead of surgical bandages. It is shaped to conform better to a woman's body and keep the breasts together, so they do not fall to the side of the body, causing further stress on the sutures. The center front panels of the garment are made of stretchable material, as well as the back of the garment. The side front panels are made of rigid material. There is also boning (stays) stitched to the side of the garment to keep the sides flat. The rigid panels on the side help to push the breast together and keep them in place. The center front

closes with Velcro, or a hook and loop fastener. This gives the garment adjustability as it can be closed tighter or looser, therefore pushing the breasts together.

U.S. Patent No. 2,882,905 ("Barg")

74. Barg describes a bra with an adjustable front closure. The bra consists of bra cups attached to front panels. The front panels are attached to back panels and joining the back panels in the center back of the bra is a strip of elastic. The center front of the bra has adjustable hook and eye tape. One can close it on the inner row of eyes, which pushes the breasts together more, or on the outer row of eyes, which lets the breasts sit further apart. It is designed so that more women can wear the same garment, even though they have different body types, with the ability to also adjust to the neckline of the garment being worn as described in Col.1, line 31.

U.S. Patent No. 2,579,365 ("Conde")

75. Conde describes two plastic breast forms, intended to enhance the appearance of the bust. The breast forms can be inserted into bras or clothing or can be secured to the body with "attaching devises". If worn as a bra on its own, it is secured in the center by a link that is a "single unit connector" that can be either removably connected or permanently connected as desired. The cups have holes and slots so that one could sew them into a garment or secure "attaching members"

(Col. 2, line 49) to the cups, so the bra can be worn without being inserted into a garment.

U.S. Patent No. 2,793,369 ("Panighini")

76. Panighini describes a backless, strapless bra comprising two adhesive acrylic resin cups that attach to the skin. The two cups are joined in the center with an elastic connector so that the breasts do not spread apart and can be pushed together to create a cleavage effect. The bra is meant to be invisible under clothing, while still supporting the breasts and holding them together, without the need of "shoulder or back straps or reinforcing members" as described in Col. 1, line 19.

Actual Products Comprising Silicone Breast Forms with Adhesive Were Known

77. The products mentioned below were available for sale years before the invention date of the '296 Patent and are simply a further demonstration of the state of the art and the knowledge that a person of ordinary skill in the art would possess prior to 2002.

Amoena Silicone Breast Forms

78. Amoena is a well-known intimate apparel brand known to sell silicone breastforms since the mid-1970's. They started selling the first attachable silicon breast form in 1992, and by 1998 they started selling breast forms with an integrated adhesive layer. Amoena's breast forms are meant to look natural, and

disguise the fact that the wearer is wearing a breast form. Amoena is known to design and manufacture silicone breast forms not only for post-surgical purposes (e.g., prosthesis), but also for everyday use by women to enhance breast appearance by providing enlargement, support and lift. The Mulligan reference is one of many Amoena patents. Amoena's webpage (http://www.amoena.com/us-en/about-us/breast-form-evolution/) showing the history of their products illustrates the 1998 silicone breast form with a pressure-sensitive adhesive layer:

- 1975 First silicone breast form
- 1984 Two-layer breast forms
- 1988 Flowable gel back layer breast forms
- 1990 First triangle shape breast form
- 1992 First generation of attachable breast forms
- 1996 Lightweight silicone breast forms
- 1998 First breast form with integrated adhesive layer
- 2001 Mouldable back layer breast forms
- 2004 Tawny colour lightweight breast forms
- 2005 Climate breast forms
- 2008 *Comfort+* technology breast forms
- 2010 Energy breast forms
- 2014 Cosmetic breast forms

Bragel's "Illusions" Silicone Breast Forms

79. Even Bragel's own products predate the invention date of the '296

Patent. "Amazing Enhancer" or "Illusions" were silicone breast forms encased in thermoplastic film material that were sold in pairs, used to enhance a woman's bustline. One is meant to insert them into a bra or swimsuit to fill out the bustline in a natural looking way. I understand that Bragel has previously taken the position that the "Illusions" breast forms contained a pressure-sensitive adhesive layer as early as 1997, and that the claimed invention of the '296 Patent was conceived by adding a connector to a pair of these breast forms.

Invalidity Analysis of Claims 1, 2 and 5

80. In my opinion each of the challenged claims 1, 2 and 5 of the '296 Patent are invalid as obvious. It would be obvious to a person skilled in the art to combine the varied references to achieve a natural-looking backless, strapless bra that could also enhance the cleavage, or give support when a garment was worn with a low neckline. This was even known to people that were not skilled in the art. Beauty pageant contestants were known to glue or tape silicone cups to their bust to enhance their bust line. Even by also connecting the cups with tape, one can achieve even better lift and cleavage. The results of such efforts were not only obvious to a person skilled in the art, but to any woman that has attached and connected silicone breast forms to their body to enhance the bust line.

81. In my opinion, there are at least two approaches to demonstrating that the challenged claims are invalid. A first approach to demonstrating that the

challenged claims are invalid as obvious, as described below with reference to Grounds 1 and 2, would be for one of skill in the art to start with known silicone breast forms containing a pressure sensitive adhesive layer, such as those disclosed in Luckman or Chen, and then adding known center connectors utilized for backless, strapless bras as disclosed in numerous references such as Davis or Valentine to create a self-adhesive silicon backless strapless bra with a center connector. Prior to the invention date of the '296 Patent, a person skilled in the art would have recognized that in any bra, the center connector is one very important factor in how the bra fits, how it supports, and how much lift and cleavage one can achieve.

82. One of skill in the art would know that center connectors were well-known in the art for many decades, and would appreciate the role of center connectors in allowing the wearer to achieve a desired support or cleavage effect for their breasts. Many different references such as Davis, Valentin, Hedu, Panighini, Johnstone, and Barg describe different types of center connectors designed to achieve holding the breasts together in a desired position, whether it be for more support, more cleavage or to suit the neckline of garment worn. Adding a center connector would have been an obvious design choice for one of skill in the art looking to create a backless, strapless bra out of self-adhesive silicone breast forms, especially considering connectors were a known and necessary element of

bras that allowed the wearer to control the support and cleavage effect of the bra. The resulting product of this combination would be expected to provide users with a backless, strapless bra with a natural-looking appearance, that enhances the appearance of the wearer's breasts, and allows for controlling the appearance of cleavage using the connector. I note that the inventors themselves adopted this approach, by adding a known connector to the adhesive containing version of Bragel's Illusions Silicone Breast Enhancers which were patented and covered by the Chen reference.

83. Because the combination discussed above contains a connector that meets the elements of claims 2 and 5, the combination of silicone breast forms and a connector as disclosed in numerous other references would also render claims 2 and 5 obvious.

84. The second approach that one of skill in the art would consider, as described below with reference to Ground 2, would be to combine a known backless, strapless bra containing a connector such as Valentin, with a volume of silicone gel that includes the pressure sensitive adhesive layer as disclosed in Chen. Alternatively, as described below with reference to Ground 3, a person of ordinary skill in the art would combine a backless, strapless bra such as Noble, with a volume of silicone gel including adhesive of Mulligan and a connector of Hedu. In my opinion, this combination would render obvious Claim 1, 2, and 5 of the '296

Patent.

Ground 1: Claims 1, 2 and 5 are obvious over combination of Luckman and Davis

85. Davis discloses a "strapless, backless bra" including first and second cups with a connector for detachably and pivotally connecting the cups. (Davis, Abstract; 2:44-47). The Davis bra can be worn in place of a traditional bra "with a variety of revealing clothing that creates symmetrical appearance of the user's breasts and that provides uniform lift and support while also permitting adjustment to conform to or enhance the shape of the user's breasts." (Davis, 2:15-20). Davis also describes using "double-sided adhesive tape" that is "pressure sensitive" disposed on the inside surface of each breast cup. (Davis, 2:49-53; 4:52-63; Claim 20).

86. Davis also teaches a connector that is positioned between the inner sides of each of the breast forms. (Davis, Fig. 1.) Davis provides "a strapless, backless bra having a connector system that allows separate closed cell foam bra pads to function as a one-piece bra." (Davis, 2:38-41). The Davis connector is designed for "detachably connecting the two cups." (Davis, 2:51-52). The "right and left cups 12, 14 of the bra 10 are attachable to each other by a connector 16, which may be any mechanism capable of connecting cups 12 and 14 and permitting movement of the cups relative to each other, such as a snap, as shown." (Davis, 4:12-16; Figs. 1-3). The connector "enhances the appearance of the user's

breasts by creating more cleavage." (Davis, 4:50-51). The connector disclosed in Davis is a "snap" connector that has two portions attached to the inner side of both breast forms. "In the preferred embodiment of the invention, right and left cups 12, 14 of the bra 10 are attachable to each other by a connector 16, which may be any mechanism capable of connecting cups 12 and 14 and permitting movement of the cups relative to each other, such as a snap, as shown." (Davis, 4:12-16; Figs. 1-3). The male part and the female part of the connector snap together, thus cooperatively engaging with each other. (Davis, 4:19-25). Davis describes the female and male parts "affixed" to each respective breast cup and are inherently permanently attached to the breast cups. (Davis, 4:26-39; Claim 2). The permanent attachment of the first and second portions of the connector to the breast forms was well known in the art, especially for the snap type connector, and a POSITA would have easily recognized the use of various types of connectors, including permanent ones, which were known in the field of bra design.

87. Luckman also teaches a backless, strapless breast form system in a form of "an external breast enhancement" device "to be attached to the chest, over the natural female breasts." (Luckman, Abstract, p. 2). Luckman notes that "[t]his adaptation is not a prosthesis. However, for purposes of clarification is referred to herein as such." (*Id*.) Luckman differentiates from "fillers or pads for bras that are made out of many materials, including foam rubber." (*Id.*) Luckman's breast

forms "may also be worn without a bra inside outer garments." (*Id*., p. 3, ll. 9-10). Luckman's breast form "can be adhered to the chest wall of the person so that it will have a natural appearance and feel as well as normal flexibility in movement." (Luckman, p. 5, ll. 24-26). The "concave rear wall portion" of the device "provides and acts as support and bra to the natural female breast." (Luckman, p. 3, l. 19).

88. With respect to the "volume of silicone gel encased between thermoplastic film material" claim limitation, Luckman teaches a filler comprising "a flexible silicone rubber material injected into the flexible shell of latex rubber adjacent to the peripheral edge thereof." (Luckman, p. 3, 14-16; p. 5, ll. 5-7; Claim 2 ("filler 18 is located within this flexible shell 12 and is constructed of suitable material having soft flexible physical characteristics. The filler can be suitably constructed in the form of silicone rubber" or "silicone foam"). The filler "can be a silicone elastomer of the type sold by DOW CORNING CORPORATION as SILASTIC RTV silicone rubber." (Luckman, p. 4, ll. 19-20). A person of ordinary skill in the art would recognize that silicone rubber is an elastomer that may come in a form of gel. Luckman also describes that "the external breast enhancement is comprised of a thin flexible shell of an elastomeric material, latex or similar … and a filler retained within the confines of the thin shell having soft flexible physical characteristics." (Luckman, p. 3, ll. 11-14). A person of ordinary

skill in the art would appreciate that the disclosure of "elastomeric material, latex or similar" encompasses a thermoplastic film material for performing the same function, namely, encasing the injected silicone.

89. Luckman further describes using a pressure sensitive adhesive layer for securing the breast form to the user's breast. Luckman's breast enhancement device "may be attached to the chest wall, over the natural breasts, with medical adhesive allowing it to be worn for long periods of time, and it can be worn to bed and in the water." (Luckman, p. 3, ll. 7-9). The device "forms a concave rear wall portion" that "provides and acts as support and bra to the natural female breast." (*Id.* p. 3, ll. 16-19). Luckman also discloses that the "device can be attached to the chest wall with a strong silicone adhesive of non-toxic nor hypoallergenic properties. (*Id.*, p.3, ll. 22-23). In addition, the Luckman breast form is "attached to the chest wall by applying adhesive to the peripheral rear margin 14 and pressing it into place." The adhesive "may be a medical adhesive silicone Type A sold by DOW CORNING CORPORATION under its trademark SILASTIC." (Luckman, p. 5, ll. 17-19).

90. Thus, Luckman and Davis reflect the state of the art in the area of backless, strapless bras as described in the '296 Patent. Both, Luckman and Davis recognize related needs to each other and the '296 Patent, particularly with respect to providing a backless, strapless bra that enhances the appearance of user's breasts

by providing visual enlargement, support and cleavage.

91. As easily recognized by a person of ordinary skill and creativity in the area of bra design prior to the priority date of the '296 Patent, various types of silicone gel breast cups, such as Luckman, were well known to provide natural look and feel enhancement to woman's breasts. (e.g., Luckman, p. 5, ll. 24-26). The '296 Patent itself acknowledges the state of the art prior to its priority date: "[a] popular type of breast form has been made from a silicone gel material that is completely encased by plastic film material." According to the '296 Patent, "[t]he advantage of this type of breast form is that it looks like a natural human breast when worn and feels natural to the user, thus enhancing the self image and confidence of the user." ('296 Patent, 1:51-56). Furthermore, backless, strapless bras with a connector, but without silicone, as exemplified by Davis, were available as of the priority date of the '296 Patent. Thus, all of the claimed components making up the claimed invention of the '296 Patent were available well before the priority date.

92. Luckman teaches each and every element of claims 1, 2 and 5, except for one basic component - the connector positioned between the inner sides of each of the breast forms. Yet, as exemplified by Davis in particular, and other references mentioned above in general (e.g., Valentin, Hedu, Johnstone, Barg, Conde, etc.), such connectors were well known in the prior art. Accordingly,

considering the well-recognized needs in the prior art, e.g., to provide natural look and feel, together with breast enhancement, cleavage and push-up support, it would have been obvious to a person of ordinary skill in the art to modify Luckman's breast enhancement device to add Davis's connector. A connector is a well-known component that, as demonstrated by Davis, provides enhanced cleavage, uniform support and overall appearance of the breasts, in addition to "permitting adjustment to conform to or enhance the shape of the user's breasts." (Davis, 2:15-20, 29-31; 4:51).

93. Such a solution to address the "cleavage" and "support" needs is not only obvious, but also predictable. The inventors simply failed to claim a specific type of a connector or connection type and the plain and ordinary meaning of the term "a connector adapted to adjoin the breast forms together" includes different types of connectors: "[t]he connector 14 can have many different forms, but generally will have two or more separate portions, where a first portion attaches to one breast form and a second portion attached to the other breast form." ('296 Patent, 4:51-54). The specification of the '296 Patent suggests using all kinds of different connectors, including, "adjustable clasp assembly", "button type assembly", hooks and loops, snapping arms, ('296 Patent, 5:62, 6:24, 6:29-45; 6:46-53). As the '296 Patent makes clear: "it is understood that there are many possible configurations for the connector 14 and the manner in which it connects to

the breast forms." ('296 Patent, 6:64-67, emphasis added).

94. As a person of ordinary skill in the art would appreciate, adding a connector has the predicable effect of bringing the breasts together and providing uniform support to both breasts. That is simply common sense. For years prior to the priority date of the '296 Patent, runway models used to simply tape their breasts with a rudimentary connector, such as duct tape, to enhance support and cleavage. Armed with such common sense, as well as general knowledge in the field of bra design, a person of ordinary skill in the art would have been motivated to pursue the known options within his or her technical grasp in the prior art to combine the teachings of Luckman and Davis and would have expected to succeed. Because adding a connector would lead to the anticipated success, the claimed product of the '296 Patent is not of innovation, but of ordinary skill and common sense. Thus, it would have been obvious to one of ordinary skill and creativity to adapt the Luckman silicone breast forms to fit a center connector as disclosed by Davis, even if it required some variation in the selection or arrangement of particular elements.

Ground 2: Claims 1, 2 and 5 are Obvious over Combination of Valentin and Chen

95. Valentin describes "a strapless and backless bra for providing uniform lift and support and enhanced appearance of the breasts of a user." (Valentin, 1:5-8; 2:15-17). Valentin bra "can be worn with revealing clothing while lifting and

supporting the breasts of a user with uniformity and comfort." (Valentin, 1:52-55). Valentin's pair of cups are connected together, with "each cup having an open top end and a closed bottom end." (Valentin, 2:1-6; Figs. 1-3,7).

96. Valentin also teaches the use of an adhesive in the form of a "two sided tape" with "a body side adhesive 62 on one side and a fabric side adhesive 64 on the other side." (Valentin, 3:47-50). "Body side adhesive 62 is preferably a hypoallergenic, pressure sensitive, acrylate adhesive that is non-toxic and reduces irritation of the skin of a user 38." (Valentin, 3:51-53). Valentin's adhesive, however, is applied to the tabs 28 and 30 for the bra to adhere to the user, rather than the inner surface of the cups. (Valentin, 3:63-4:2; 4:11-19).

97. Valentin's connector adjoins the breast forms together: "[b]ridge connector 16 represents any form of connection between the U-shaped cups 12 and 14, such as a unitary piece of material, as shown. However, it should be appreciated that many equivalent alternatives exist. For example, bridge connector 16 could be, inter alia, a releasable snap-fit connector 16, an eye and hook connector, or a system for joining the inner sides 26 of the U-Shaped cups 12 and 14 together." (Valentin, 3:20-27; Fig. 7). The bridge connector in Valentin may be in the form of a "releasable snap-fit connector" which has "complementary snap-like female 72 and male 74 interconnections positioned proximate each inner side 26." (Valentin, 3:28-32; 4:62-5:10). As shown in Fig. 7, the female and male

connectors are clearly two portions that are attached to the inner side of each breast form and that are designed to cooperatively engage with each other. (*Id.*, 3:31-35; Fig. 7). A person of ordinary skill in the art would recognize that the releasable snap-fit connector is the same type of a connector that the '296 Patent refers to as "permanently fixed": "In FIGS. 5a and 5b, the connector 14 is shown permanently fixed to the breast forms. More specifically, the first portion 44 and second portion 42 are permanently attached to the inner sides of the breast forms 12." ('296 Patent, 6:17-20).

98. Valentin does *not* disclose using a volume of silicone gel encased between thermoplastic film for the breast cups. However, Chen teaches *identical* breast forms to the ones taught by the '296 Patent that "comprise a silicone material that is encased by a fabric laminated thermoplastic film material." (Chen, 2:40-43, 50-65). According to Chen, the breast form "is intended to serve as full-range of externally worn articles that can be worn to enhance or replace a user's breasts. Accordingly, the breast form 10 can be configured as and/or used in the capacity of breast inserts, breast enhancer, and breast prostheses." (Chen, 2:44-49). Chen and the '296 Patent both emphasize that the "advantage of this type of breast form is that it looks like a natural human breast when worn and feels natural to the user." (Chen, 1:37-39; '296 Patent, 1:53-55). Chen aims to solve the need for a breast form that "that can be made available in a wide range of colors" and

made "lighter in weight" yet still maintaining a desirable appearance. (Chen, 1:50-56).

99. Chen's pressure sensitive adhesive is also identical to the adhesive claimed by the '296 Patent. Chen teaches that each breast form "includes a permanently grown, re-usable pressure-sensitive (PSA) backing on an interior surface of the breast form, i.e., a surface of the breast form placed against a user's body, which prevents the breast form from moving from its desired position on the user." (Chen, 2:27-32; 4:35-37).

100. As demonstrated above, both Valentin and Chen reflect the state of the art in the area of backless, strapless bras as taught by the '296 Patent. Both references are analogous art and aim to enhance the appearance of a woman's breasts. For example, Chen discusses the need for enhancing breast size by means that "look and feel natural so as to complement and not detract from the existing female breast that it is used to enhance." (Chen, 1:26-28). As such, both references represent the knowledge of a person of ordinary skill in the field of bra design prior to the invention date of the '296 Patent.

101. Valentin discloses each and every element of the challenged claims, *except* Valentin utilizes "soft woven or knitted fabric, such as cotton and/or lace" for its breast forms rather than volume of silicone gel encased between thermoplastic film material." (Valentin, 3:3-6) Valentin also applies pressure

sensitive adhesive to the side tabs rather than to the cups' interior surface. Chen, on the other hand, expressly teaches breast forms that are composed of a volume of silicone gel encased between thermoplastic film material with a pressure sensitive adhesive layer applied to the concave interior surface of each breast form for securing the breast forms to the user's breasts.

102. Thus, a person of ordinary skill in the art, having the general knowledge available to him or her in the prior art prior to the invention date of the '296 Patent, would simply look to Chen to substitute Valentin's fabric cups with silicone cups that include pressure sensitive adhesive. Using silicone for the cups in Valentin would have been obvious, particularly in light of the teachings in Chen, which suggested that a breast form containing a pressure sensitive adhesive layer should "look and feel natural so as to complement and not detract from the existing female breast." (Chen, 1:26-28). In fact, Chen *expressly* suggests replacing "breast forms, such as foam pads, water-filled pads and the like" as well as "fabric," that do not offer natural feel and look when worn, with silicone gel. (Chen, 1:37-50).

103. Since the substituted components, i.e., silicone with adhesive, and their properties and functions were well known in the art, as demonstrated by Chen, a person of ordinary skill in the art at the time of the invention could have substituted these elements for Valentin's fabric cups, and the results of such a

substitution would be predictable. The result or solution would have been predictable because these components would function precisely as they were intended to function – silicone would provide the natural look and feel and the pressure sensitive adhesive would be used to secure the breast forms to the user's breasts. As was well known to one of skill in the art, silicone looks and feels very similar to breast tissue. Prior to the invention of the '296 Patent it was well known that silicone cups/breast forms were available in a wide variety of sizes, shapes and thicknesses. Therefore, using silicone for the cups in Valentin would have been obvious, particularly in light of the teachings of references like Chen, which suggested that a breast form containing a pressure sensitive adhesive layer could be constructed of silicone material that looks and feels natural.

104. Of course, an alternative combination approach that would have been obvious is to combine known silicone breast forms containing a pressure sensitive adhesive layer, such as those taught by Chen, and then add known center connectors as disclosed in Valentin to create a self-adhesive silicone backless, strapless bra with a center connector. That is precisely what the inventors did. A person of ordinary skill in the art would have easily known of various types of connectors used in bras generally, with center connectors of a bra being used to hold breasts together in a desired position, whether it be for more support or more cleavage. Center connectors were well-known in the art for many decades, and

were a known and necessary element of bras that allowed the wearer to control the amount of cleavage. Valentin is just one example that teaches a connector that meets the elements of challenged claims 1, 2 and 5.

105. Thus, if a person of ordinary skill in the art were to start out with a basic pair of adhesive silicone cups taught by Chen, and having the general knowledge of the center connectors and their functions in the field of bras, as exemplified by Valentin, he or she would have easily recognized that the base device, i.e., the adhesive silicone cups, could be improved in the same exact way as the similar bras have been improved for decades – adding cleavage and support, thus enhancing the general appearance of the user's breasts. Such an improvement of the base device would be predictable. The technique of adding a center connector to improve the adhesive silicone breast forms is certainly part of the ordinary capabilities of a person of ordinary skill in the art, in view of the express teachings in Valentin for improvement of a very similar strapless and backless bra. Therefore, each claimed element was well known in the art of bra construction and products designed to enhance the appearance of a woman's breasts, and one of skill in the art would have easily looked at the various references cited above and combined those to arrive at the invention claimed in the '296 Patent. Accordingly, the combination of Valentin and Chen would render the challenged claims 1, 2 and 5 obvious.

Ground 3: Claims 1, 2 and 5 are Obvious over Combination of Noble, Mulligan and Hedu

106. Noble describes a reusable "self-supporting breast cup" apparatus that is "pre-formed in the shape of different breast sizes (including left and right) and provides requisite support for the breast without using hooks and straps." (Noble, 2:6-15). Noble teaches a "brassiere[s] requiring no straps or hooks," that "enhances the wearing of strapless, backless dresses," and provides "a soft natural shape to a woman's bust," that "feels like skin." (Noble, 1:5-8, 2:21-30; 5:51-54; Fig. 18).

107. The breast cup portion of Noble is of "a soft foam quality LD (low density)" material. (Noble, 4:9). Both, the soft foam and the covering material are laminated "by pressing under heat … a laminated sheet … comprising thin foamed plastics such as polyurethane sheet material." (Noble, 4:15-24). Noble also teaches using "releasably securing means" comprising "two inner double-sided tape strips" that are "skin-friendly" and "anti-allergic to normal skin" which are releasably secured to the inside of the breast forms by pressing to the breast. (Noble, 4:52-58; 5:8-14, 54-59; 6:13-17).

108. Noble's brassiere includes a center connector for adjoining the breast forms together in a form of "a provision, e.g., a decorative lace band 50, for coupling two SSBCs 220 being worn, as shown in FIG. 18." (Noble, 5:59-61; Fig. 18). Noble describes using two "respective bands … that are joined (e.g., tied)

together in the center" appealing to a wearer "with breasts that have a close separation." (Noble, 6:1-5; Claim 11; Fig. 18).

109. Noble uses a simple connector in a form of bands that are tied together. A person of ordinary skill in the art would have recognized that alternative types of center connectors were known prior to the invention date of the '296 Patent and would have looked to Hedu's connector for example, for a more specific type of a connector, such as a clasp assembly providing more adjustability to support and cleavage. Hedu discloses a connector that is adjustable and is especially designed "for front closing brassieres" providing more accurate conformance "to the physique of the individual wearer" and "yielding greater comfort and better support to the user." (Hedu, 1:24-29, 41-43). Hedu describes a "front clasping type" connector that "involves an improved clasp assembly" "for detachably releasing the connection between the breast cups for simple, efficient, and trouble-free donning or removing of the garment." (Hedu, 1:9-13, 33-36; 2:39-41). As shown in Fig. 1 of Hedu, the clasp 14 is positioned between inner sides of each breast forms. (Hedu, 2:20-27; Fig. 1). Hedu's connector includes two portions, male and female: "the male member has a shoulder thereon which engages an edge of an aperture located in the face of the female member." (Hedu, 1:52-55). Thus, Hedu teaches two members cooperatively engaging.

110. Hedu's "clasp assembly" connector is similar to the connector taught

by the ‘296 Patent and encompassed by claim 5: “Referring to FIGS. 5a and 5b, the connector 14 is shown as an adjustable clasp assembly.” (‘296 Patent, 5:61-62). “In FIGS. 5a and 5b, the connector 14 is shown permanently fixed to the breast forms. More specifically, the first portion 44 and second portion 42 are permanently attached to the inner side of the breast forms 12.” (‘296 Patent, 6:17-20). Similarly, Hedu’s first and second portions of the connector may be held permanently inside the inner pockets of the cups. (‘296 Patent, 2:20-22). A person of ordinary skill in the art would appreciate that one of the “suitable means” to attach the connector portions is by permanently “sewing” them to the cups. (Hedu, 1:14-18).

111. While Noble discusses the use of thermoplastic film and foam, Noble does *not* disclose a volume of silicone encased between thermoplastic film. Mulligan, however, teaches “a breast prosthesis comprising two shell-like bodies … each welded in between synthetic resin films and consisting of silicone compositions of different softness.” (Mulligan, Abstract). Mulligan’s two breast “bodies” feature “a softer material with a gel-like consistency, for instance a two-component, addition cross-linked silicone rubber” which is “enclosed within synthetic resin films 2a, 3a, for instance polyurethane films.” (Mulligan, 2:35-45). Mulligan also teaches using an adhesive layer “arranged on the inner prosthesis body” composed of silicone that can be manufactured to be “permanently tacky.”

(Mulligan, 1:49-50; 2:47-52). Mulligan's adhesive layer may be provided "in a groove formed at the inner side of the prosthesis body" or "in an encircling form" or in a "wave-like form" or "in continuous lines" to improve "wearing comfort for the user" so that "adhesion of the adhesive layer is obtainable." (Mulligan, 3:12-18, 19-22, 24-26, 36-38).

112. As discussed above, both Noble and Hedu disclose a center connector used in bras and brassieres for adjoining the breast forms together in the middle, thereby enhancing support and cleavage. Thus, a person of ordinary skill in the art knew precisely how to improve the prior art strapless and backless bras with a center connector and would recognize that a comparable backless and strapless bra made of silicone cups can be improved in the same way to achieve the same predictable result – enhanced cleavage and support. At the very least, it would have been obvious for a person of ordinary skill in the art *to try* to improve the silicone breast forms in the same way that the prior art bras have been improved before the invention of the '206 Patent. The design need for an enhanced cleavage and support already existed in the prior art and was solved in a similar type of backless and strapless bra with the addition of a center connector as demonstrated by Noble and Hedu.

113. Noble in combination with Hedu discloses each feature of claims 1, 2 and 5, with the exception of the volume of silicone gel encased in thermoplastic

film material element. One of the skill in the art, however, would readily combine Noble with a known silicone containing breast form, to create a self-adhesive silicon backless strapless bra with a center connector. A person of ordinary skill in the art, armed with the general knowledge of the prior art, would simply look to Mulligan to substitute Noble's foam breast cups with silicone cups that include pressure sensitive adhesive. As is well known to one of skill in the art, silicone looks and feels very similar to breast tissue. Prior to the invention of the '296 Patent it was well known that silicone cups/breast forms were available in a wide variety of sizes, shapes and thicknesses. Therefore, using silicone for the cups in Noble would have been obvious, particularly in light of the teachings of references like Mulligan, which suggested that a breast form containing a pressure sensitive adhesive layer could be constructed of various soft and natural-feeling materials. Silicone gel would have been an obvious design choice for one of skill in the art looking to create a backless, strapless bra, especially considering that silicone breast forms, nipple covers, and prostheses were available in a variety of shapes and thicknesses at the time of the invention in the '296 Patent. The resulting product of this combination would be expected to provide users with a backless, strapless bra with a natural-looking appearance, that enhances the appearance of the wearer's breasts, and allows for controlling the appearance of cleavage using the connector.

114. Because features such as silicone and center connector were well known to enhance the existing bras, the design incentives provided a person of ordinary skill in the art with a reason to make such a predictable adaptation, resulting in the claimed invention. Because Noble discloses a connector that meets the elements of claims 2 and 5, the combination of Noble and silicone material as disclosed in numerous other references would also render claims 2 and 5 obvious.

115. In sum, it would have been obvious to one of skill in the art to create a product using any of the combinations discussed above. During the 2002 time frame persons of skill in the art would have known of the wide variety of prior art references teaching each element of the '296 Patent's claims. The patent itself discloses the existence of both silicone breast forms and various kinds of backless, strapless bras.

116. Whether a person of skill in the art would have started with a backless, strapless bra as disclosed in Noble, or if one of skill in the art would have started with a silicone breast form such as Luckman or Chen for example, one of skill in the art would have been motivated to improve those products by combining them with a reference disclosing the missing elements of the '296 Patent claims. Irrespective of whether the missing element was a cup made out of silicone material, or a center connector, each missing element was well known in the art of bra construction and products designed to enhance the appearance of a woman's

breasts, and one of skill in the art would have readily looked to references in the same general technology area in order to arrive at the necessary combination. One of skill in the art would have used their knowledge of the various references, as well as their common sense, to identify the necessary combinations to arrive at the claimed inventions. For example, one of skill in the art would have been motivated to improve the backless, strapless bra disclosed in Noble to end up with a backless, strapless bra comprising silicone breast forms, since silicone's benefits in terms of enhancing the appearance of a woman's bust line in a natural-looking manner were well known, and one of skill in the art designing an improved backless, strapless would have been motivated to capture those benefits by replacing the fabric cups of Noble with silicone ones. Similarly, one of skill in the art looking to improve the Luckman or Chen silicone breast forms, to allow the wearer additional support and the ability to enhance their cleavage -- known benefits of bras with center connectors -- would have been motivated to create a backless, strapless bra out of those independent breast forms, and would have been motivated to capture the well-known benefits of bras with center connectors in order to do so. Accordingly, regardless of the starting point, one of skill in the art would have been motivated to arrive at an ordered combination that would provide the wearer with the benefits of silicone breast forms, and the support/cleavage enhancement of a backless, strapless bra with a center connector.

117. I note that my proposed combinations include various references that both alone and in combination were not considered by the Examiner during prosecution of the '296 Patent. Accordingly, Bragel's arguments during prosecution that one of skill in the art would not have been motivated to combine Noble with a breast prosthesis as disclosed in Mulligan, for example, are inapplicable to the combination of Noble and thinner silicone containing breast forms such as those disclosed in Luckman or Chen, or as sold by Bragel itself. The same common inventor, David E. Chen, expressly suggested looking to the breast prostheses, to arrive at his invention in the Chen reference: "Externally worn articles that can be worn for the purpose of either enhancing or replacing human breasts are referred to as breast forms, and include a wide range of breast enhancers, breast inserts, and breast prostheses." (Chen, 1:31-35). Tellingly, the inventors themselves readily looked to examples of connectors in the technical field of bras when conceiving of their invention, and the '296 Patent does not claim what one of skill in the art would consider an improved connector. Nor does the '296 Patent claim improvements to any individual element of the challenged claims, whether they be improvements to the adhesive, or the silicone used, for example. One of skill in the art would therefore readily understand that the claimed inventions consist of combinations of off-the-shelf components that would have been well-known to one of skill in the art. One of skill in the art looking to

arrive at the claimed ordered combination of those components would have made obvious design choices to do so. For at least these reasons, it is my opinion one of skill in the art would have been motivated to combine the various references to arrive at the claimed inventions in the ‘296 Patent.

Perjury Statement

I declare under penalty of perjury under the law of the United States that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed New York, New York, on the 4th day of October, 2016, by:

By: 

Karin Yngvesdotter

EXHIBIT A

KARIN YNGVESDOTTER

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Phone: 917-319-1459
Email: karinyngvesdotter@gmail.com

WORK HISTORY:

PRATT INSTITUTE: 9/2000- PRESENT

- Hired as visiting assistant professor, promoted to Adjunct Associate professor 2007. Promoted to Adjunct Associate Professor with CCE (Certificate of continuous employment) 2009, Promoted to Full Professor June 2014.

Hired to teach Bra, Lingerie and Swimwear construction, design, patternmaking and fit
Have also taught/ is currently teaching: Junior Fashion design and construction, Junior Shape and Form, Junior sportswear, Junior swim wear, Junior Lingerie, Tailoring techniques, Senior thesis, Freshmen construction and Freshmen drape and construct.
Served as Assistant chair and also as Chair for the peer committee.
Have served on search committees for full time positions.
Currently serving as Construction Curriculum Integrator Coordinator.

FREELANCE 9/98-PRESENT

- Consultant for the Fashion industry (Pattern making, fitting, specs, production execution, grading, sourcing and advising on all aspects of developing a collection/brand).

Current and previous clients:

Third Love: June 2012-Dec 2012. Hired to develop original bra prototypes for custom ordered bras. Advised on components, made patterns, wrote construction instructions and fit bras. Advised on sizing and grading chart in sizes that included full size as well as in-between sizing: 30AAA-40G.
Lisa Marie Fernandez: Feb 2009-Present. Consult on swim wear and cover up designs, make all patterns and all graded patterns, write all construction instructions and fit all garments.
Sunzi: 2012-Present: Consult on swimwear design with inside bra construction, made patterns, wrote construction instructions and fit garments
Caitlin Kelly label and Elif swimwear for Jordan Taylor: 2012-2013. Consulted on and helped develop swimwear with designers. Made patterns, wrote construction instructions, fit garments
Aerin Rose: 2001-2012. Consulted on and helped develop swimwear with inside bra construction, sizing from 32B to 40G. Made patterns, wrote construction instructions, fit garments, graded some sizes and worked with grader to perfect grading on other sizes.
Swimsuits for all: 2007-2012. Consulted on and helped develop swimwear with inside bra construction. Made patterns, wrote construction instructions, fit garments
Araks: 2010 Made patterns for bras, wrote construction instructions and fit garments.
Passion Bait: 1999-2004 Consulted on bra, pantie and other intimate apparel designs, made all patterns and some graded patterns, wrote all construction instructions and fit all garments.
Leigh Bantivoglio: 1998-2008. Consulted on Intimate apparel designs. Made patterns, wrote construction instructions, graded and advised on grading and over seas production. Fit all garments.
Christina Stott: 2001-2003. Consulted on bra, pantie and other intimate apparel design, made patterns, wrote construction instructions and fit garments.
Elis: 2001-2002 Made patterns for bra and panty designs
Jane Mayle: 2000-2001 Made patterns for ready to wear designs and fit garments.
Samantha Chang: 2000-2001 Made patterns for Bra designs and fit garments
FYC: 2000 Made patterns for sleepwear designs and fit garments
Beautifully Big: 2000 Made patterns for Intimate apparel designs
O-Strings: 1999-2001 Consulted on panty designs for women with colostomy, made patterns and fit garments
Embody: 1999 Made patterns for Bra and panty designs
Shoulders to go: 1998-2001 Made patterns for Daywear designs and fit garments.
JWE Silk, Halston and Anne Klein sleepwear private label. 1999-2001 Made patterns for sleep and loungewear designs and fit garments.

K.YNGVESDOTTER COUTURE, INC.: 9/98-6/2009

President. Wedding gown designer and manufacturer

- Custom made clothing, for all sizes , Main focus on wedding gowns
- Designer and manufacturer of K. Yngvesdotter Couture collection.

E TO E LINGERIE, NYC, 1/96 – 8/98

Head designer, E to E Lingerie and Christian Dior Daywear

- Head responsible for all aspects of design and sourcing (created all original designs, sourced fabric and trim market both domestic and overseas)
- Created first patterns, specs and production patterns
- Oversaw all technical aspects of production (costing, sewing execution, grading, markers and cutting)
- Head responsible for all final fit approval (petite to 3X)
- Worked directly with buyers to create exclusive designs and private label garments

FREELANCE DESIGNER 12/95 – 5/96

E TO E LINGERIE, (see above)

KEIKO Swimwear, NYC

Technical advisor

- Advised on and corrected swim wear production patterns, grading and design execution

JULIARA, NYC

Head designer

- Head responsible for all aspects of Intimate apparel designs and sourcing (created original designs, sourced fabric and trim market both domestic and overseas)
- Created first patterns and fit garments
- Worked directly with buyers to create private label and exclusive designs

WONDERMAID, NYC, 10/94 – 12/95

Head designer for Wondermaid Daywear and Sleepwear, and De la Rose Daywear

- Head responsible for all aspects of design and sourcing (created original designs, sourced fabric and trim market both domestic and overseas)
- Created first patterns and specs
- Oversaw all technical aspects of production (costing, sewing execution, grading, markers and cutting)
- Head responsible for all final fit approval (petite to 5X)
- Worked directly with buyers to create private label and exclusive designs
- Prepared presentation boards and sketched flats and floats for presentation, records and linelists

NATORI,7/91 – 10/94

Entered company as Assistant Designer for Natori Daywear. Promoted to Associate designer, 11/92, responsible for designing Josie Daywear and part of Josie sleep wear. Promoted to Designer 1/94

- Created original designs
- Executed private labels and exclusive designs for varied accounts
- Sourced fabric and trim both domestic and overseas
- Oversaw all technical aspects of production , domestic and overseas(costing, sewing execution, grading, markers and cutting)
- Created first patterns and specs
- Fit garments with patternmaker for production
- Prepared presentation boards and sketched flats and floats for presentation, records and linelists

OTHER EXPERIENCE: 10/93-4/94

Studio Rouge:
Theater and film costume
- Prepared patterns
- Responsible for execution of garments
- Sourced fabric and trim market
- Researched dress and costume history

JITZO, NYC
Swim wear
- Head responsible for all aspects of design and sourcing (created original designs, sourced fabric and trim market both domestic and overseas)
- Prepared first patterns, specs and production patterns
- Oversaw all technical aspects of production (costing, sewing execution, grading, markers and cutting)
- Head responsible for all final fit approval

ASM Manufacturing
Sleepwear and lounge wear for the Hasidic market
- Created original designs
- Prepared first patterns, specs and production patterns
- Oversaw all technical aspects of production (costing, sewing execution, grading, markers and cutting)
- Head responsible for all final fit approval

Education

Fashion Institute of technology, NYC, 8/89-6/91
Associate in Applied Science degree, June 1991
Major courses: Patternmaking, Draping, Sewing, Art, Special sizes (large and petite), Fashion Past and Present, Costume history

Education honors: Deans list all semesters
Active sportswear garment and special size garment (size24) selected for annual fashion show
Graduated summa cum laude, 3.94/4.00
Participated in Presidential Scholars Program

Parsons School of design, NYC, 9/88 – 12/88
Pattern making classes (non – credit, continuing ed.)

Polhem school, Lund, Sweden, 8/83 – 6/86
Majored in science graduated 4.0/5.0
Apprenticeship: Tailoring
Alterations
Patternmaking

Bjärehof school, Bjärred, Sweden, 8/76 -6/83
Extracurricular Patternmaking and sewing classes

References Furnished upon request