

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Tommy John, Inc.,
Petitioner,

v.

0912139 B.C. LTD.
(Pakage Apparel, Inc.),
Patent Owner.

Case (To be assigned)
Patent 10,834,974

**DECLARATION OF ROBIN WAGNER IN SUPPOR OF TOMMY JOHN,
INC.'S PETITION FOR *INTER PARTES* REVIEW OF
OF U.S. PATENT NO. 10,834,974**

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I, Robin Wagner, declare:

I. INTRODUCTION

A. Engagement

1. I have been retained on behalf of Tommy John, Inc. (“**Tommy John**”) to offer technical opinions relating to U.S. Patent No. 10,834,974 (EX1001) (the “**’974 Patent**”) and prior art references relating to its subject matter.¹

2. I have no financial interest in either party or in the outcome of this proceeding. I am being compensated for my work as an expert on an hourly basis at my standard consulting rate of \$200 to \$610 per hour depending on the type of work. My compensation is not dependent on the outcome of these proceedings or the content of my opinions.

B. Background and Qualification

3. In 1981, I received my Bachelor of Fine Arts in Product Design: Apparel and Accessories from the Fashion Institute of Technology of the State University of New York, where I graduated cum laude with a specialization in knitwear, and received the Willi Smith Award for contemporary design. My coursework included patternmaking, draping, illustration, sewing and construction,

¹ For brevity, when providing citations herein, I will generally refer to the name of the reference, rather than the exhibit number. The exhibit numbers associated with each reference can be found in Appendix A.

and industrial knitting machine programming and operation, among other things. I have worked in the apparel industry since graduation, producing a variety of products with an emphasis on cut and sew knit garments and fully fashioned knitwear, and as of late, active performance athletic products, including wetsuits, dancewear, and athletic ankle and knee support brace-wear.

4. I have provided freelance sourcing and design consulting services with my company, Robin Wagner LLC, since 1990. I provide design, sourcing, and technical design services relating to men's and women's apparel, domestically and internationally, including in New York, New York; Los Angeles, California; Lincoln, Nebraska; Florence, Italy, Guangzhou, China; and Wuxi, China.

5. From 2021 to 2023, I was hired as a knit technology consultant at ARYSE™, a sports brace-wear company based in Lincoln, Nebraska. I consulted on the design, sourcing, and production of weft knitted ankle and knee brace athletic support products for sports and military applications. This also included sourcing antimicrobial, wicking, stretch yarns to enhance the product's performance, and textile testing to assess abrasion resistance.

6. Since 2016, I have been a creative consultant for KD located in New York, New York, where I have designed and programmed knit stitch textures and garments for Stoll CMS 530 industrial knitting machines; made patterns; provided technical design for sizing, fit, and construction details; and consulted on the

development of a sustainable soy-based cashmere alternative fiber and related branding, design, and production methodologies as well as instituting training programs for knit programming and knit sewing processes for dancewear.

7. From 2016 to 2019, I was a technical designer at Feel the Piece, located in Los Angeles, California, where I designed and consulted as technical designer for cut-and-sew and fully fashioned knitwear.

8. From 2005 to 2010, I was Creative Director at Suicide KingTM, located in Los Angeles, California, where I designed and managed all product development for its men's knit and woven clothing line.

9. From 2004 to 2006, I was Menswear Design and Product Manager at Henry Jacobson in San Raphael, California, where I designed and managed all knit and woven product development for a men's shirting and knitwear collection made domestically and in Asia.

10. From 1996 to 1999, I was Design Director at New York Based Inc. in New York, New York, where I designed and managed all preproduction product development and technical design for men's and women's knit and woven clothing.

11. From 1993 to 1996, I was Senior Designer at Michael Seroy in New York, New York, where I designed, merchandised, and managed the women's sweater and cut-and-sew knitwear line.

12. From 1981 to 1983, I was Associate Designer at Jennifer Reed Inc., in New York, New York, where I developed hand-and-machine stitch designs and designed a hand-knit sweater collection produced in the U.S. and Asia which sold to department stores. In 1987, I returned to Jennifer Reed as Design Director/Merchandiser, where I designed, merchandised, and managed all aspects of the women's sweater and coordinate line. In this position, I managed a staff of patternmakers, designers, and freelancers.

13. From 1983 to 1987, I was V.P. of Design/Design Director for Aire Clothing, in New York, New York where I designed men's custom suiting ready-to-wear collection. This position included making patterns, conducting fittings, and supervising sewers and tailors.

14. From 1979 to 1981, I freelanced knit sample sweaters for 7th Avenue designer runway shows in New York, New York, including shows for Calvin Klein, Anne Klein, Adri, Bill Haire, and Kasper.

15. From 1978 to 1979, I was a freelance assistant designer for John Karl Ltd., in New York, New York, where I assisted in design room activities for menswear, made patterns, and spread and cut fabric for production.

16. In addition to my over 45 years of professional experience in the design and manufacture of apparel, I also have over 20 years of teaching experience in the field.

17. From 2001 to 2022, I was faculty at the Fashion Institute of Design and Merchandising in Los Angeles, California. I taught in the Textile Science, Bachelors of Design, Product Development, Fashion Knitwear, and Technical Design departments, where I taught numerous classes, including garment construction, sewing, and fit analysis; textile testing and fabric science; textile line development; knitwear design and construction; Stoll industrial knitting machine programming and operation; and many other courses related to apparel and accessories design and construction. I received the Fashion Institute of Design and Merchandising Faculty Development Grant in 2019 and again in 2020 for my work investigating fiber and design trends in Europe, and have been nominated and awarded the Outstanding Faculty Merit Award multiple time while employed as faculty.

18. Since 2017 I have also been part of the fashion design faculty pool of El Camino College and Long Beach City College in Torrance, California and Long Beach, California, respectively.

19. Further details regarding my employment and academic history are included in my *curriculum vitae*, attached as EX1006.

C. Information Considered

20. I have reviewed the '974 Patent and its prosecution history, as well as the other materials referenced in Appendix A. Counsel has informed me that I should consider these materials through the lens of one of ordinary skill in the art related to

the '974 Patent, at the time of the earliest purported priority date of the '974 Patent, and I have done so during my review of these materials. I have been asked to assume, for purposes of this Declaration, that the '974 Patent has a priority date of December 31, 2010.

21. My analyses are based on my years of education, research, and work experience, as well as my investigation and study of relevant materials. In my analyses, I have considered the materials that I identify in this Declaration and those listed in Appendix A.

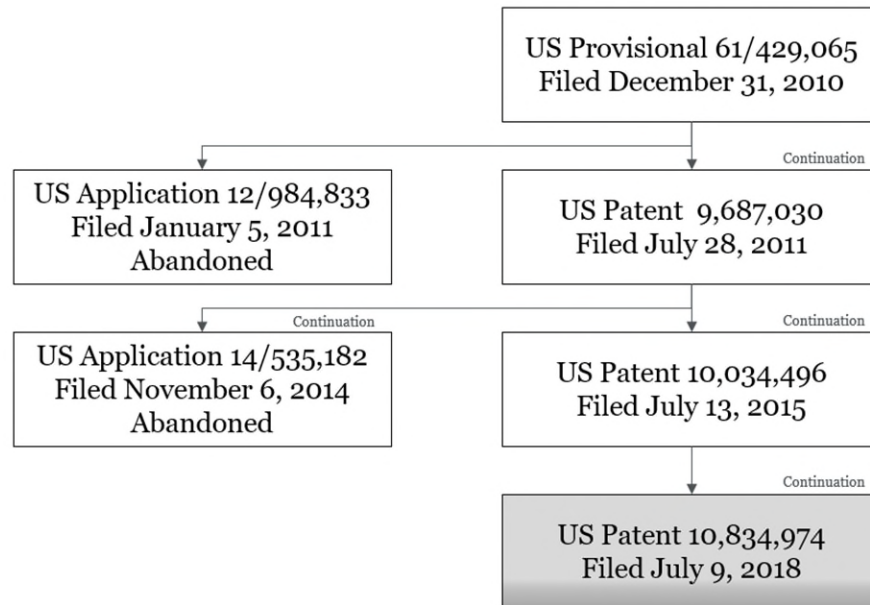
22. I may rely on these and additional materials to respond to arguments raised by the Patent Owner. I may also consider additional documents and information in further analyses—including documents that may not yet have been provided to me.

23. My review and assessment of the materials provided in this proceeding is ongoing, and I will continue to consider any new material as it is provided. I reserve the right to review, supplement, and amend my analyses based on new information and on my continuing review of the materials already provided.

II. BACKGROUND

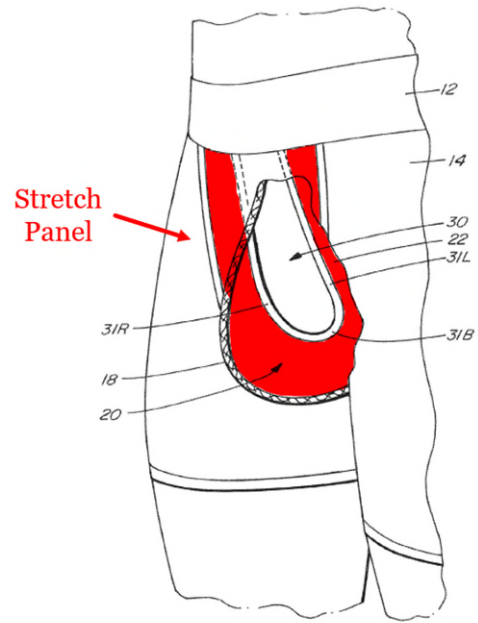
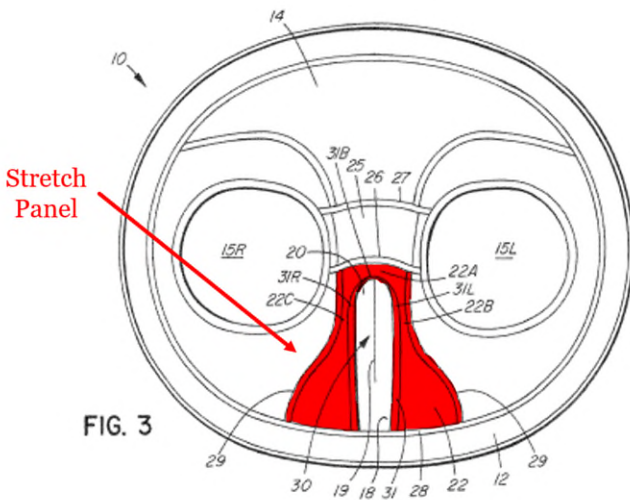
A. The '974 Patent

24. I understand the '974 Patent was filed on July 9, 2018, and issued on November 17, 2020. I also understand that the '974 Patent is part of the following patent family:



25. I have assumed, for purpose of this declaration, that the '974 Patent is entitled to its alleged priority date of December 31, 2010.

26. The '974 is directed to a garment for men and boys that has a pouch “defined between [a] stretch panel and the front of the garment.” ('974, 1:40-44.)



(*Id.*, Figs. 3, 5 (annotated).) The claims recite how the stretch panel, being elastic and attached inside a front portion of the garment at a top location (*e.g.*, near the waistband) and a bottom location, gathers the front portion from top to bottom and side to side to define a pouch that holds a wearer's genitals. (*Id.*, Fig. 6, 1:38-60, 6:28-41, 8:28-49.)

B. Prosecution History of the '974

27. I have reviewed the prosecution history of the '974 Patent. I understand that during prosecution of the '974 Patent, only a single Office Action issued, rejecting the claims on double-patenting grounds over US10,034,496, to which it claims priority. (EX1002, '974 File History, 130-135 (Non-Final Office Action mailed June 26, 2020).) In response, I understand the Applicant filed a terminal disclaimer, and a Notice of Allowance issued. (*Id.*, 169-171, Notice of Allowance

mailed October 5, 2020.) I understand US10,034,496 likewise only received a double-patenting rejecting and was terminally disclaimed back to its immediate parent, US9,687,030. (EX1003, '496 File History, 92-96 (Non-Final Office Action mailed November 9, 2017), 127-128 (Terminal Disclaimer filed February 6, 2018).)

28. During prosecution of US9,687,030 (which is the ultimate parent patent to the '974 as shown in the chart above), two Office Actions were issued which I understand rejected the claims over multiple references directed to underwear having a pouch for a wearer's genitals, with Applicant consistently arguing its claimed invention is distinguishable because the cited references allegedly did not teach a stretch panel that "gathers" a front portion of the underwear to form a pouch, with the stretch panel having a length and width when unstretched smaller than a length and width measured along the front portion.

29. For example, in response to a Final Office Action rejecting the claims over US2007/02772852 ("Gravette") and certain other references, I understand Applicant conceded that Gravette discloses a "pouch behind the fly on the front panel [e.g., portion]" of the underwear. (EX1004, '030 File History, 205-221 (RCE and Response to Final Office Action mailed July 8, 2014).) It argued, however, that Gravette did not disclose the claimed invention because the front portion of Gravette is not "gathered" by the stretch panel; instead, according to Applicant, the Gravette "pouch hangs loosely behind" the front portion. (*Id.*) I understand that following an

Examiner Interview and minor Examiner's Amendment to the claims, a Notice of Allowance mailed August 6, 2014. (*Id.*, 231-241 (Notice of Allowance mailed August 6, 2014).)

III. CLAIM CONSTRUCTION AND POSITA DEFINITION

A. Claim Construction

30. I understand that in an *inter partes* review, claims must be given their ordinary and customary meaning, as understood by one of ordinary skill in the art in light of the specification and prosecution history. I apply that standard in my analysis below to the words and phrases in the claims of the '974 Patent.

B. Definition of a Person of Ordinary Skill in the Art

31. A person of ordinary skill in the art ("**POSITA**") in the field of the '974 Patent would have had an undergraduate degree in apparel design, apparel manufacturing, textile science, or similar disciplines, along with one year of experience working in apparel design or manufacturing, or textile or fabric engineering.

32. The more education one has, the less experience needed to attain an ordinary level of skill. Similarly, more experience in the field may serve as a substitute for formal education.

IV. UNDERSTANDING OF LEGAL STANDARDS

A. Obviousness

33. I understand that, even if a claim is not fully disclosed in a single prior art reference, the patent claim is invalid if the invention would have been obvious to a POSITA at the time of the invention. In particular, I understand that a patent claim is normally invalid as obvious if it would have been an “ordinary innovation” within the relevant field to create the claimed product or method at the time of the invention.

34. I understand that the relevant portion of pre-AIA Section 103, subsection (a) of the Patent Act states:

“A patent may not be obtained through the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”

35. I understand that, by way of example only, a claimed invention is obvious if:

it combines prior art elements according to known methods to yield predictable results;

it simply substitutes one known element for another to obtain predictable results;

it uses a known technique to improve similar devices (methods, or products) in the same way;

it applies a known technique to a known device (method, or product) ready for improvement to yield predictable results;

it was “obvious to try” in that the inventor chose from a finite number of identified, predictable solutions, with a reasonable expectation of success;

known work in one field of endeavor prompted variations of it for use in either the same field or a different one based on design incentives or other market forces and those variations were predictable to one of ordinary skill in the art; or

some teaching, suggestion, or motivation in the prior art led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

36. When considering obviousness, I understand that I am to: (i) decide the level of ordinary skill in the field that someone would have had at the time the alleged invention was made; (ii) determine the scope and content of the prior art; (iii) determine what differences, if any, existed between the prior art and the Asserted Claims; and (iv) consider objective evidence of non-obviousness (also known as secondary considerations). Further, when considering obviousness, I understand that

it is not necessary to seek out precise teachings, and it is permissible to consider the inferences, common sense, and creative steps that a POSITA (who is considered to have an ordinary level of creativity and is not an automaton) would employ.

37. I understand that objective evidence relevant to the issue of obviousness may also be considered. This type of evidence is sometimes referred to as “secondary considerations,” and may include evidence of commercial success, long-felt but unsolved needs, failure of others, and unexpected results. I understand that any secondary evidence must have a nexus to the relevant claims. For example, I understand that commercial success must have a nexus to features of the alleged invention not disclosed in the prior art, and in particular the prior art references which support an obviousness theory. In other words, I understand that commercial success is material only if it comes from the merits of the claimed invention beyond what the prior art disclosed. With respect to secondary considerations, I understand that Patent Owner bears the burden of proof, and I have seen no evidence to date that any secondary considerations would establish non-obviousness.

V. CLAIMS 1-13 AND 15-16 OF THE '974 PATENT ARE RENDERED OBVIOUS BY THE PRIOR ART

38. I have been asked to provide an analysis as to whether the elements of Claims 1-13 and 15-16 of the '974 Patent (the “**Challenged Claims**”) are invalid in view of the prior art, particularly U.S. Patent Publication No. 2008/0178369

(“**Kitsch**”) (EX1007) and WO 01/37687 (“**Carrillo**”) (EX1009; EX1010²). I was also asked to consider these references in view of certain additional prior art for some of the limitations of the Challenged Claims, including U.S. Patent No. 5,461,729 (“**Brocks**”) (EX1008).

39. My analysis of these prior art references relative to the Challenged Claims—specifically, how and where the prior art references disclose and render obvious the limitations of the challenged claims—is provided below. The citations that I have included are not intended to provide an exhaustive list, but rather provide examples of how the references disclose or teach the elements of these claims.

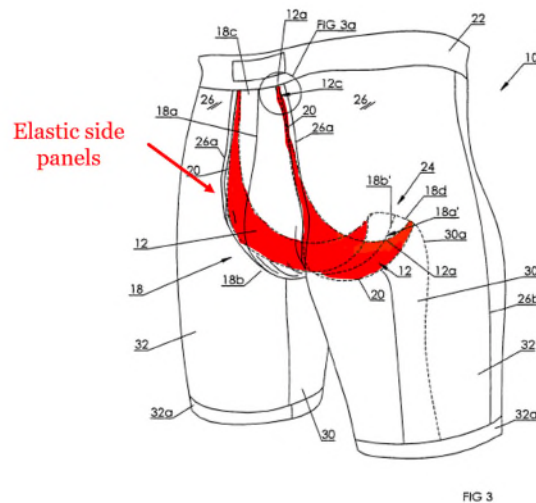
A. Ground 1 – Kitsch in View of Brocks Renders Obvious Claims 1-13 and 15-16

40. I have reviewed Kitsch. Kitsch is directed to an underwear garment for men with a pouch to hold a wearer’s genitals between the front portion of the underwear and elasticized panels attached thereto. Kitsch was filed on December 19, 2007, and published on July 31, 2008. I understand Kitsch is prior art.

41. My review of the ’974 Patent file history shows that Kitsch was not used in any Office Actions, for example to reject the claims, during prosecution of the ’974 Patent.

² EX1010 is a certified translation of Carrillo. Citations herein are to this certified translation.

42. Kitsch discloses an underwear garment for men having a pouch 18 that includes “side panels” 12 formed of an “elasticized breathable mesh knit weave” attached to the inner front portion of the garment. (Kitsch, [0006]-[0007], [0030]; *see also* Abstract, [0026]-[0027].) The pouch and side panels provide support for and isolate “the scrotum and phallus from the legs,” and “wick away moisture and provides superior comfort.” (*Id.*)



(*Id.*, Fig. 3 (annotated), [0006]-[0007], [0030].) Kitsch discloses that these elasticized side panels are designed to “cup” and “snugly engage” the wearer’s genitals to cover and support the genitals, and reduce friction between the thighs and genitals. (*Id.*, [0008]-[0009].)

43. My review of the ’974 Patent and its file history shows that while Kitsch is briefly mentioned in the background section (’974 Patent, 1:28-31), it was not used in any rejection of the claims or otherwise substantively discussed in any Office

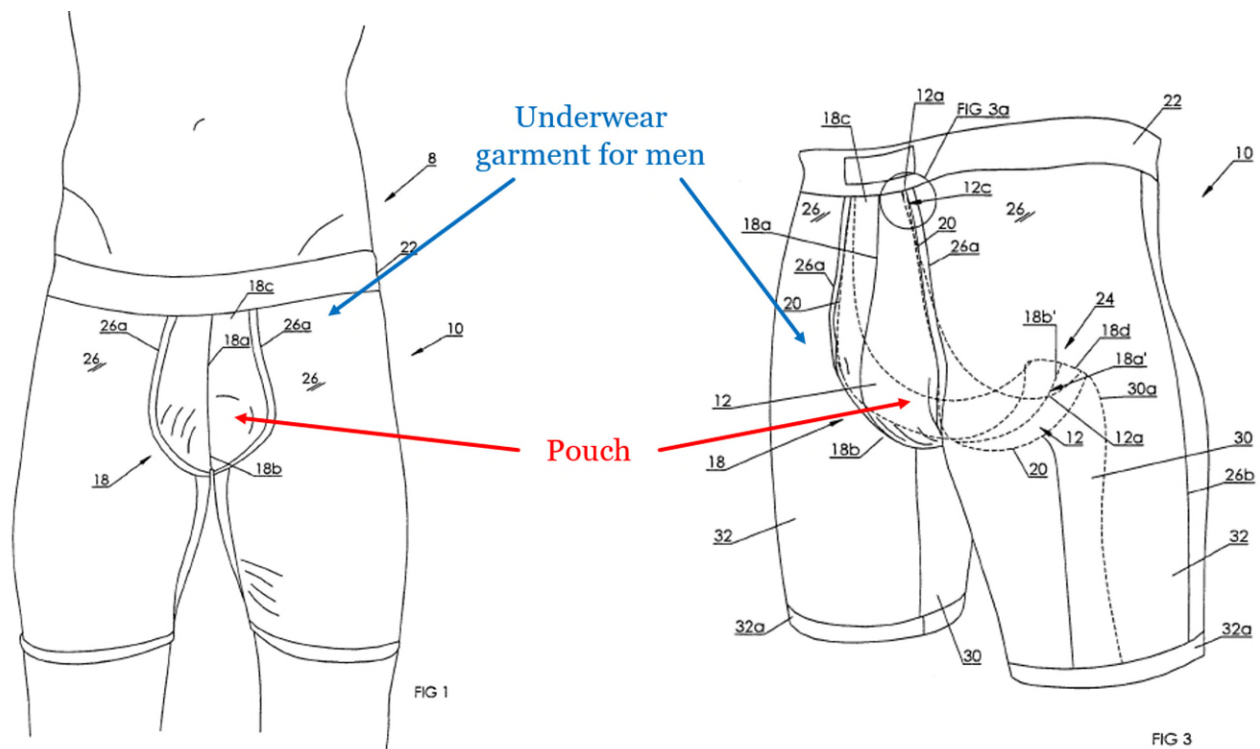
Action or communication during prosecution. In essence, the Kitsch patent discloses a men's undergarment with a pouch including breathable mesh interior side panels that provide support for men's genitals, not dissimilar to the '974 patent.

1. Independent Claim 1

44. As viewed by a POSITA, Kitsch in view of Brocks renders obvious Claim 1.

1[pre]: A male garment comprising:

45. To the extent limiting, Kitsch in view of Brocks renders obvious Claim 1[pre]. Kitsch discloses “[a]n underwear garment for use by a male[.]” (Kitsch, Abstract, [0001]-[0003], [0007].) This garment includes “a specifically shaped breathable pouch which includes elasticized breathable wicking mesh material side panels to isolate the scrotum and phallus from the legs and which wick away moisture and provides superior comfort.” (*Id.*, [0006]; *see also* Abstract, [0002], [0007]-[0008], [0026]-[0027], [0030]-[0033], [0036].) The pouch, including side panels 12, is seen in Figures 1 and 3 of Kitsch below:



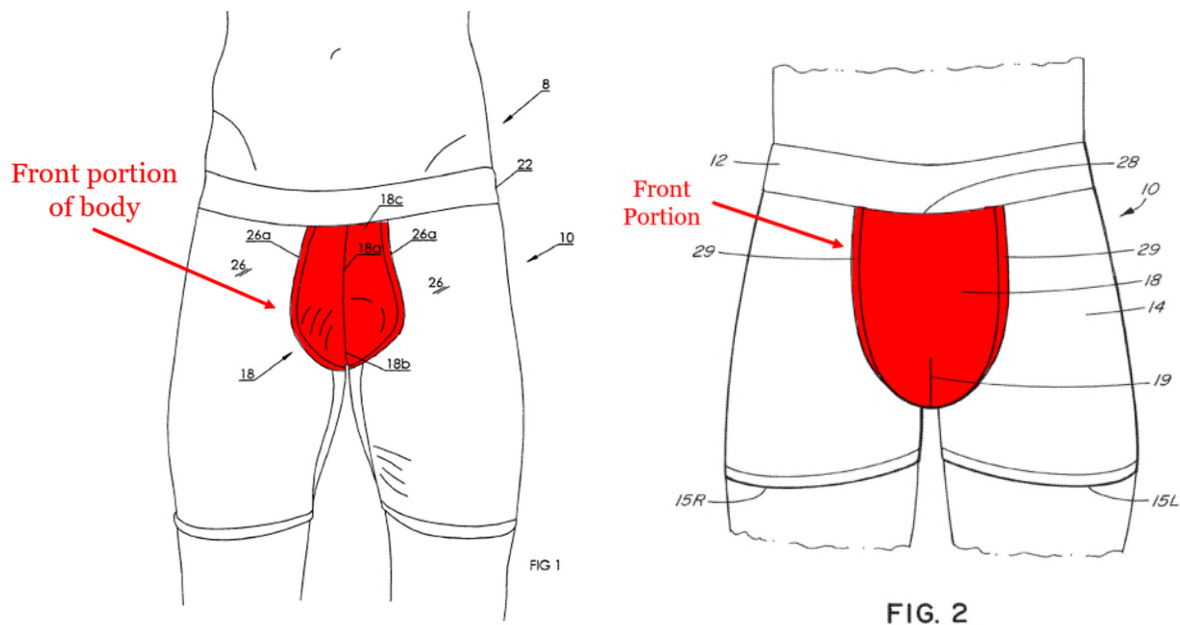
(*Id.*, Figs. 1, 3 (annotated).)

1[a]: a body including a front portion and having leg openings for a wearer's legs;

46. Kitsch in view of Brocks renders obvious Claim 1[a]. Kitsch's underwear includes a "body"—for example, "front walls/panels 26"; "pouch compartment 18" that has an inner layer of material 18' and an outer layer of material 18'' and which is located in between the two front walls/panels on the front of the underwear; "rear panel 28" that forms the back of the underwear; "legs 32"; and "leg bands 32a" that surround the openings in the bottom of the leg portions 32. (Kitsch, [0006], [0029], [0035]-[0041], Figs. 1-3, 6-7.)

47. The body of Kitsch's underwear includes a "front portion" in form of pouch compartment 18 comprised of the inner and outer fabric layers 18', 18''. (*Id.*,

[0029]-[0030], [0035]-[0041], Figs. 1-3; *see also* [0007].) As shown below, the “front portion” of the body of Kitsch is strikingly similar to the “front portion” of the body in the ’974:

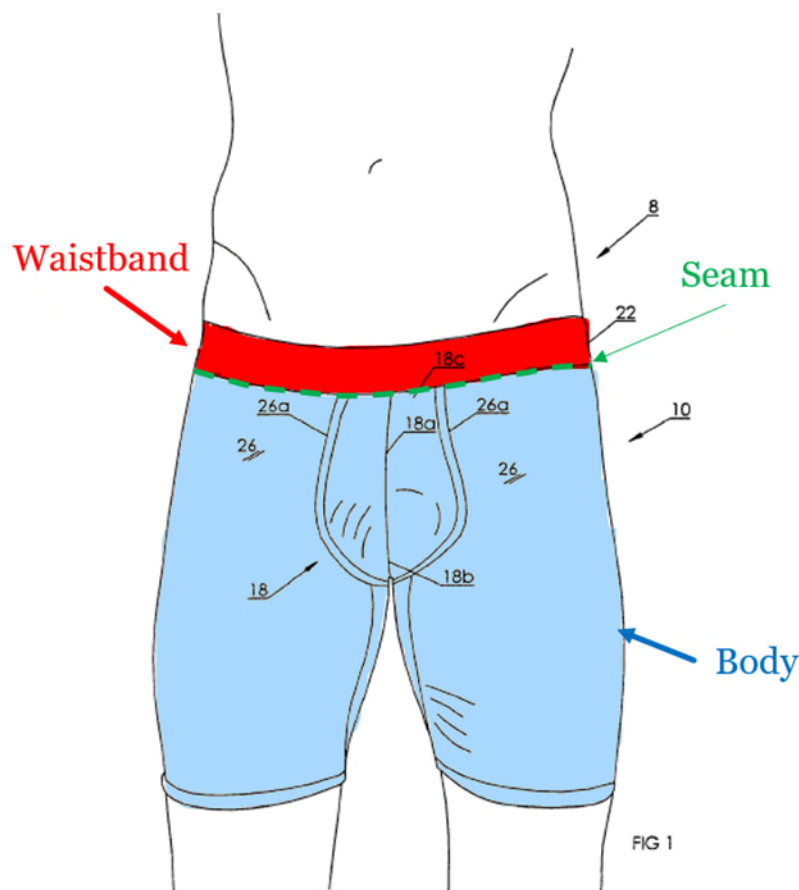


(*Id.*, Fig. 1 (annotated); ’974, Fig. 2 (annotated).)

48. Again, as I noted above, Kitsch’s body has openings in “legs 32” surrounded by “legbands 32a” to receive the wearer’s legs as is shown in Figures 1 and 2. (*Id.*, Figures 1-2, 4, [0006], [0041]; *see also* Figs. 3, 7.)

1[b]: a waistband attached by a waistband seam at an upper edge of the body;

49. Kitsch in view of Brocks renders obvious Claim 1[b]. Kitsch discloses “waistband 22” attached to an upper edge of the body along a seam:



(Kitsch, Fig. 1 (annotated), [0006]-[0008], [0010], [0029], [0035], Cl. 1, Figs. 2-3, 7.) Kitsch further notes its underwear body has “a front wall depending from a waistband.” (*Id.*, [0006]-[0007]; *see also* [0029].) The waistband of Kitsch is illustrated and disclosed as a separate material from the pouch compartment 18 and front and rear panels, 26 and 28 respectively, to which it is attached. (*Id.*, Figs. 7, 11-12.) The pouch compartment and panels are therefore joined to the waistband at a seam (as shown by the solid line in the figure above), such that, for example, the front wall can “depend” from the waistband as disclosed. This seam would be

formed by the stitching disclosed in Kitsch, and would run along the line where the waistband is shown joining the panels and pouch compartment.

1[c]: a stretch panel attached to the body inside the front portion,

50. Kitsch in view of Brocks renders obvious Claim 1[c]. Kitsch discloses a stretch panel, in the form of “side **panels** 12,” which are “constructed of an **elasticized** breathable **mesh** fabric, for the purpose of isolating the genitalia... into the pouch compartment.” (Kitsch, [0026]-[0027]; *see also* [0007]; Cls. 1-4, 8.) The side panels, seamed to the waistband and at seam 30a, “provide the intended isolating function... and support for the scrotum.” (*Id.*, [0030].) As explained in the ’974 Patent, the stretch panel may be formed from a single piece of fabric or, like in Kitsch, “from a plurality of pieces of fabric[.]” (’974, 8:5-10; *see also* cl. 14.) In addition, the ’974 Patent explains that the stretch panel may have additional openings around the main opening. (*Id.*, 7:58-63.)

51. Kitsch’s side panels are attached to the body of the underwear “inside the front portion,” as they “extend generally orthogonally inwardly from **the front of the brief**” and are “stitched to the front walls 26 and waistband 22 of brief 10.” (Kitsch, [0029].) Kitsch further discloses that the “side panels 12 and the interior and exterior layers 18’ and 18’’ respectively of pouch compartment 18 advantageously may share the interior seams 20 which create the pouch shape that is, seams 20 and 26a are coincident,” allowing cooperation between the side panels and pouch. (*Id.*,

[0039], Fig. 3; *see also* [0026]-[0027].) Interior seams are those found on the inside of the garment, and again this indicates that the stretch panel is attached to the inside of the front portion of the underwear. Figures 3 and 8 of Kitsch expressly show the stretch panel, side panels 12, being attached to the front portion of the underwear and then extending inwards towards the interior of the underwear:

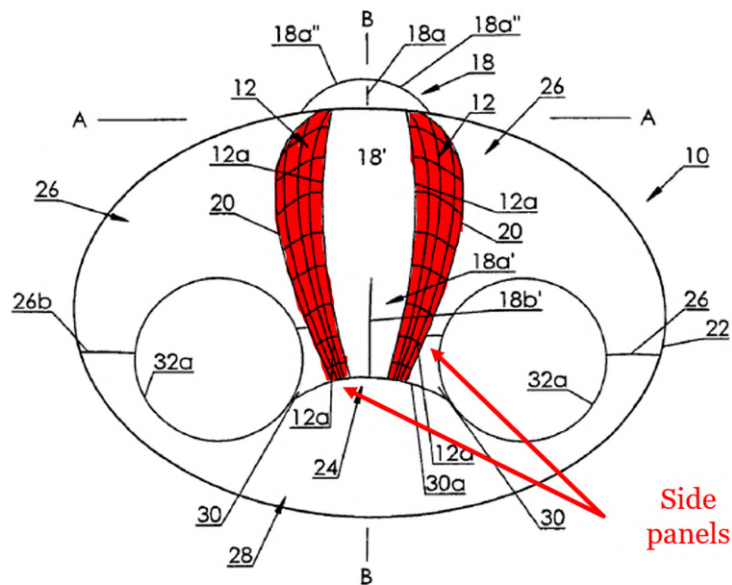


FIG 8

(*Id.*, Fig. 8 (annotated).)

be used to form the side panels (*e.g.*, stretch panel). Again, as explained in the '974 Patent, the stretch panel itself does not need to be made from a single, continuous sheet of material. Instead, it can be made “from a plurality of pieces of fabric,” and further can have openings, or gaps, around the main opening. ('974, 7:58-63, 8:5-10; *see also* Cl. 14.) Moreover, each side panel in Kitsch is a sheet of mesh material, and the two side panels could also be cut from the same sheet when laying out the pattern piece template as shown in Figure 14. (Kitsch, [0025], Fig. 14.)

54. *Second*, Kitsch’s side panels are made from elastically resilient, four way stretch material. Elasticized materials, such as the Nylon™ and Spandex™ blend disclosed in Kitsch, are “elastically resilient,” as they can be stretched out by applying force or tension, such as pulling on them. Then, when the force or tension is released, the elasticized material resiliently contracts back towards its unstretched state. These elasticized materials also have four-way stretch, as Kitsch discloses they are formed with a “four-by-four stretch weave,” which allows the fabric to stretch in four directions (that is, up and down and left and right). *See also infra* ¶¶55-60. Kitsch’s statement that its side panels are made from “soft elasticized breathable mesh knit weave (in a so-called four-by-four stretch weave)” is just another of way of saying that they are made from a knit mesh fabric that stretches in four directions. The four-by-four stretch weave means that the material is woven, for example, as a

four yarns over four yarns configuration, or is knitted similarly to resemble this configuration, and produces a material that is mesh in appearance.

1[e]: ... [i] having a top edge attached to the body at a top location, [ii] a bottom edge attached to the body at a bottom location, [iii] side edges attached to the body at side seams extending substantially continuously along either side of the front portion and [iv] an opening for receiving a wearer's genitals;

55. Kitsch in view of Brocks renders obvious Claim 1[e].

56. **First**, Kitsch's side panels 12 have a "top edge" attached to the body of the underwear at a "top location" (*e.g.*, at or near the waistband at the top of the underwear), as the side panels include "***upper ends 12c*** of side panels 12 where side panels 12 are stitched to the front walls 26 and waistband 22 of brief 10." (Kitsch, [0029]; *see also* [0008]-[0010], [0028], [0035]-[0039].) Stitching the side panels to the waistband attaches them at the top, waistband location of the body of the underwear.

Top edge of
side panels
attached to
body at a top
location

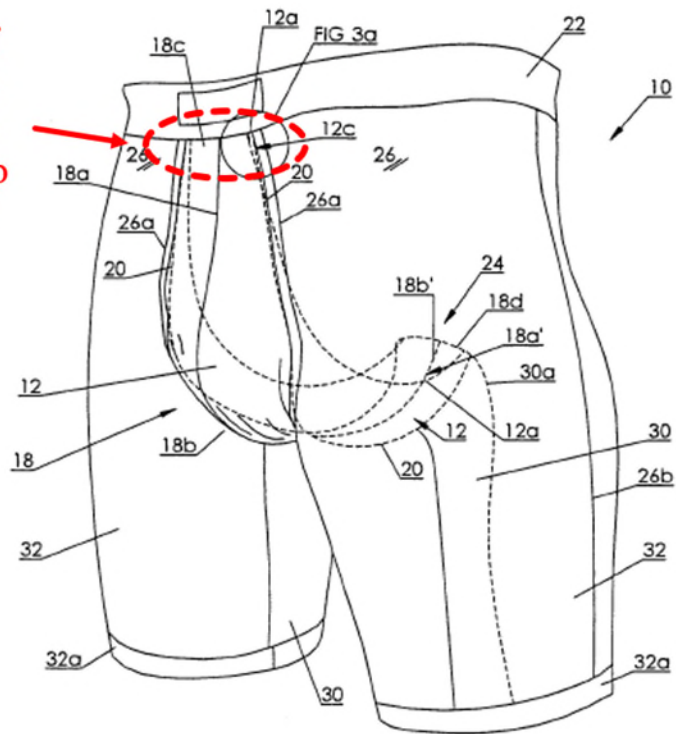


FIG 3

(*Id.*, Fig. 3 (annotated), [0029], Fig. 4.)

57. **Second**, Kitsch’s side panels have a “bottom edge” attached to the body at a bottom location, as the panels’ bottom edges attach to the body around the “perineum area 24” at seam 30a, which is at the “rearmost end of pouch compartment 18”:

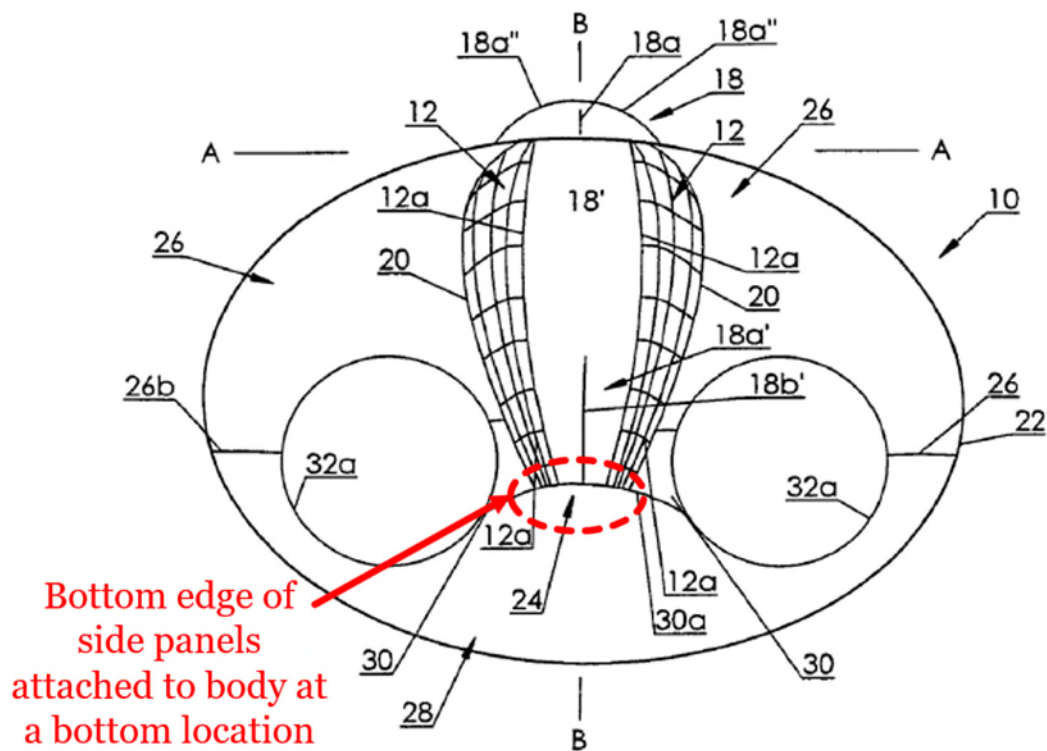


FIG 8

(Kitsch, Fig. 8 (annotated), [0008] (describing side panels as “forming upwardly from adjacent the perineum.”), [0041].) This can also be seen in Figure 3 of Kitsch:

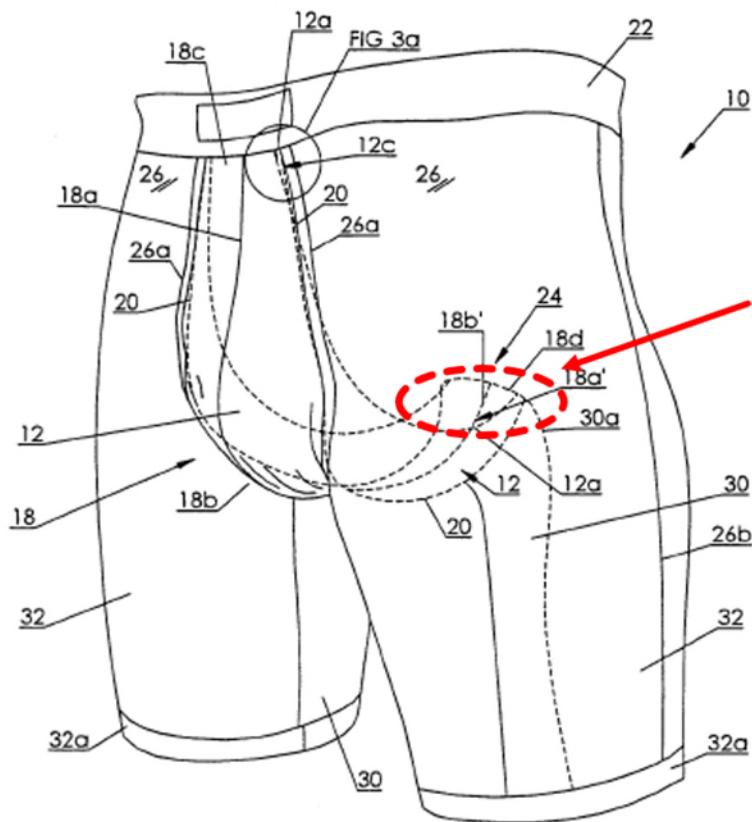


FIG 3

(*Id.*, Fig. 3 (annotated) *see also* Fig. 7.) As seen in the figures of Kitsch, the bottom edge of the side panels attach to the body of the underwear at a bottom location towards the back of the main part of the underwear body.

58. **Third**, Kitsch's side panels have "side edges" attached to the body at side seams extending substantially continuously along either side of the front portion, as the panels have sides that attach to the "laterally spaced apart pouch seams 20" that connect the pouch material 18 to the front walls 26:

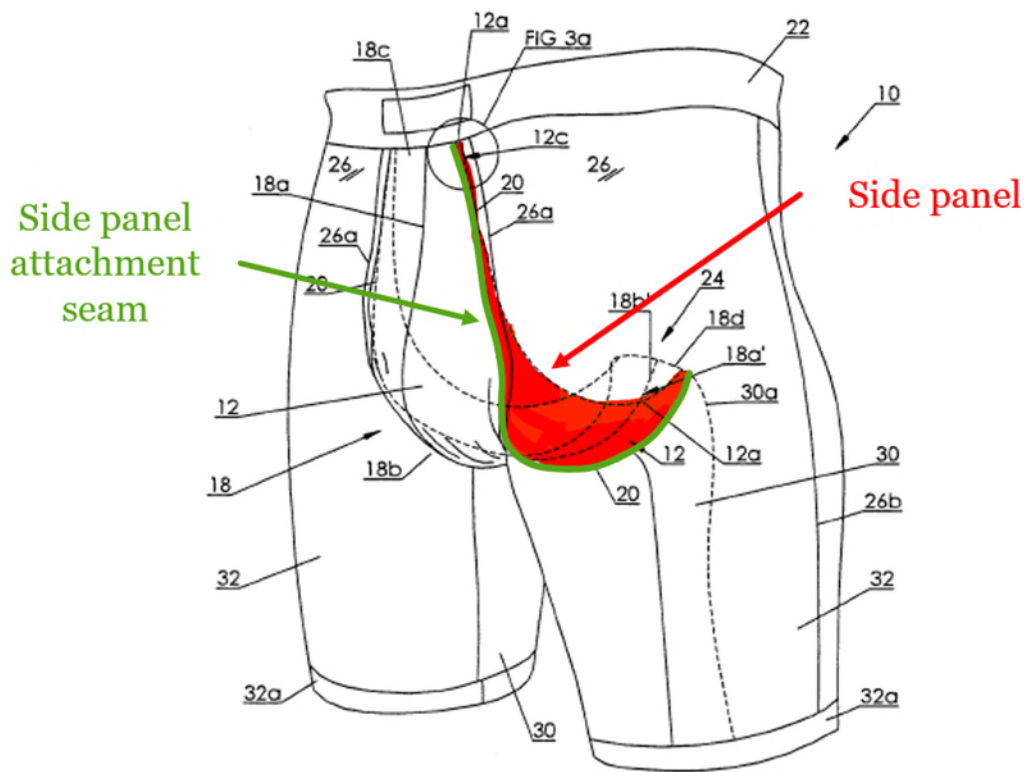
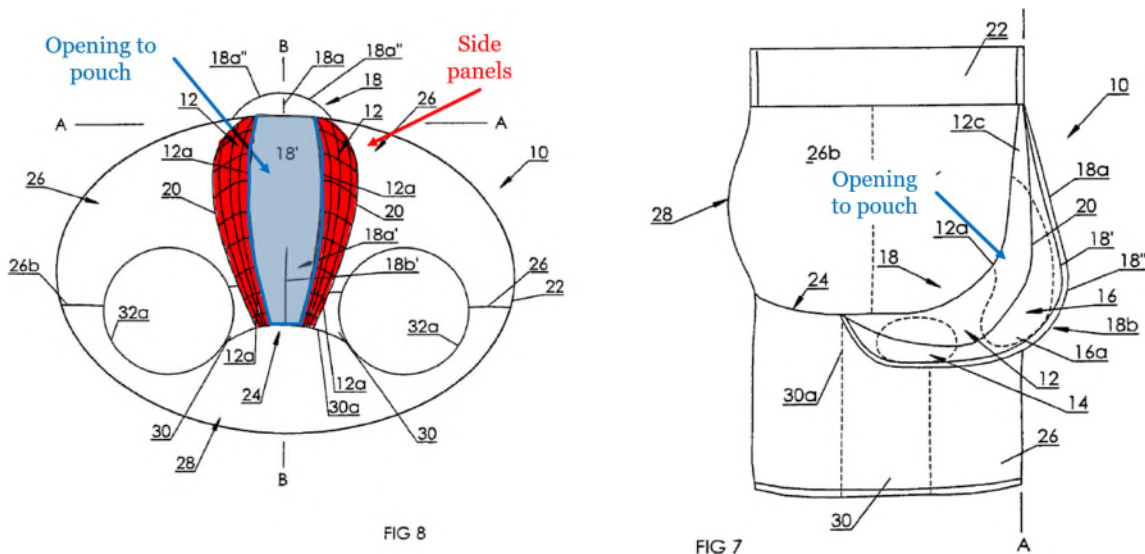


FIG 3

(*Id.*, Fig. 3 (annotated), [0027]-[0028], [0037]-[0039]; *see also* [0006]-[0009]; [0029], [0037].) Kitsch further notes that the side seams 20 can be coincident with seams 26a, meaning that seams 20 and 26a could be formed as one seam or overlapping seams joining all parts together. (*Id.*, [0037].) As shown in Figure 3 above, these side seams 20/26a run continuously from around the perineum area designated as 24 in Kitsch (*i.e.*, near the bottom of the underwear), upwards along either side of the pouch compartment 18, and attach around the waistband area (*i.e.*, near the top of the underwear). (*Id.*)

59. **Fourth**, Kitsch's side panels include an "opening" for receiving a wearer's genitals in "an anatomical pouch compartment[.]" (Kitsch, [0006].) In Kitsch, the side panels are "laterally spaced apart," and the space between the panels forms an opening that receives the wearer's genitalia to isolate "the genitalia, in particular scrotum 14 and phallus 16... **into** pouch compartment 18, thereby isolating the genitalia from contacting the inner thigh and legs of the user 8 wearing the briefs." (*Id.*, [0006]-[0009], [0026]-[0028].)

60. The opening for receiving the wearer's genitals can be seen in, for example, Figures 7-8 of Kitsch:



(*Id.*, Figs. 7-8 (annotated), [0037]-[0039]; see also Fig. 3.)

1[f]: the stretch panel resiliently elastic both in a direction between the top edge and the bottom edge and in a direction between the side edges;

61. Kitsch in view of Brocks renders obvious Claim 1[f]. Kitsch discloses its side panels (e.g., "stretch panel") are resiliently elastic in both a direction from

top to bottom and side to side, as they are made from a nylon and spandex mesh knit in a four-by-four stretch weave. *See supra* ¶¶52-60. (*See also* Kitsch, [0030].) Kitsch discloses that a “soft elasticized breathable mesh knit weave (in a so-called four-by-four stretch weave) containing 80% NylonTM and 20% SpandexTM” is used. Fabrics that contain 20% SpandexTM would be highly elastic with very good recovery. Knit fabrics made from this blend and in a four-by-four weave construction would have stretch in all directions, as I explained above. An undergarment such as Kitsch’s would stretch not only laterally to put the underwear on, but also longitudinally to prevent any constriction of the wearer’s genitals while the wearer sits or performs other activities that involve squatting, running, bending, etc. The four-by-four stretch weave allows the elasticized side panels to stretch up and down, between the top edge near the waistband and the bottom edge near the perineum, and to stretch left and right, in a direction between the two side seams 20. (*Id.*, [0029]-[0030]; *see also* [0006]-[0009], [0026], [0028], [0029]-[0030], Cls. 5-6.)

62. Moreover, Kitsch explains that the “flexibility and elasticity of the mesh side panel material” allows it to “mould to gently conform to the shape of the scrotum 14 in particular and allow for resiliently supported relative movement of the scrotum relative to the pubis and perineum 24 of user 8, side panels 12 resiliently cradling and biasing the scrotum back into its naturally resting position.” (*Id.*, [0029].) For the side panel to “mould” to the shape of the scrotum and provide

resilient support, it would need to stretch and resiliently contract in all directions so as to mold, or conform, to the shape of the scrotum. With the side panels “resiliently” supporting, cradling, and biasing the scrotum, they are resiliently elastic in a direction between the top waistband location and bottom perineum area location, and between the two side seams 20, to react to the relative movement of the scrotum.

See also supra ¶¶50-51.

1[g]: [i] the stretch panel having a length when unstretched smaller than a length measured along the front portion between the top and bottom locations and [ii] a width when unstretched smaller than a width measured along the front portion between the side seams such that [iii] front portion is gathered by the stretch panel and defines a three-dimensional pouch between the stretch panel and the front portion for receiving the wearer’s genitals and holding the wearer’s genitals while the garment is being worn.

63. Kitsch in view of Brocks renders obvious Claim 1[g]. Kitsch discloses that its side panels provide a pouch, formed between the panels and the front portion of the body, for receiving and supporting the wearer’s genitalia. *See supra* ¶¶46-48, 50-51, 55-60. Kitsch further discloses that the side panels are made from an ***elasticized*** breathable mesh knit weave, and in particular a four-by-four stretch weave, and, as such, are stretchable. *See supra* ¶¶50-51, 61-62. Being stretchable, the weave of elastic mesh could be pulled to expand in a lengthwise direction, with the resilient elastic material making up the weave then contracting back when the tension is released and the mesh is no longer being pulled. The same is true for pulling the mesh in a width-wise directions—the mesh would expand widthwise

under tension and contract back when the tension is released. In other words, when the elasticized material in Kitsch is stretched lengthwise, its length would increase, and when stretched widthwise, its width would increase.

64. Brocks, in the same field as Kitsch, discloses a male undergarment brief that also includes a “defined genital pouch.” (Brocks, Abstract.) Brocks’s underwear includes a “trunk or rear portion 4,” a “waist band 6,” “leg bands 7 and 11,” and a “front panel insert 12” that defines a genital pouch:

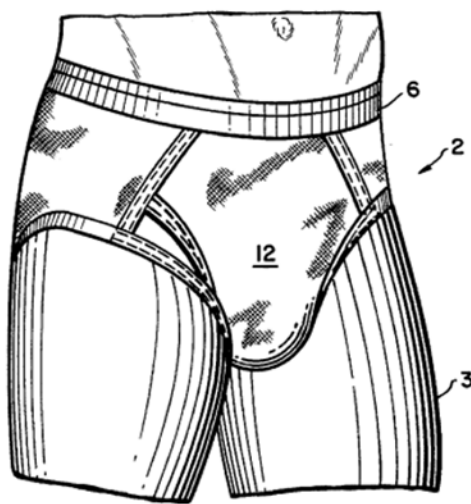


FIG. 1

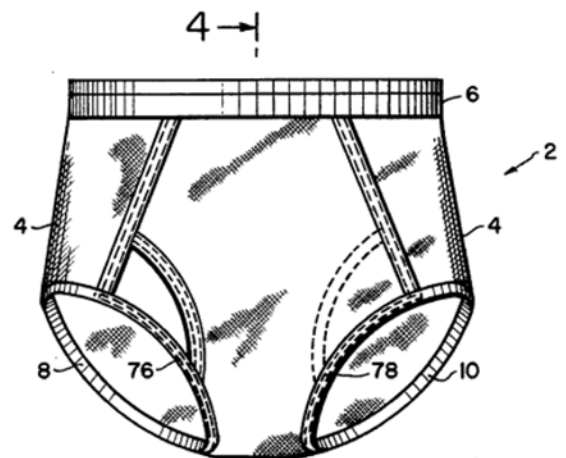


FIG. 2

(Brocks, Figs. 1-2, 2:49-64, 4:2-14; *see also* Figs. 4-5.) Brock’s two-layer “front panel insert 12,” like that of Kitsch, is formed of an inner panel and an outer panel. (*Id.*, 2:60-3:27.)

65. Additionally, Brocks teaches that its genital pouch is formed by attaching elastic strips to the front fabric panels **while in a stretched state**, such that when the strips contract a “shirring takes place on the panels forming a genital

pouch.” (*Id.*, 2:5-21, 3:23-4:14.) In particular, Brocks discloses that the elastic material used to form the pouch can be attached in a stretch state (that is, the elastic in its unstretched state is smaller than when it is being attached), so as to “gather” the fabric of the front portion and cause it to bunch and form the pouch. (*Id.*, 2:5-21 (“In assembling, the elastic strips are each stretched to the length of each of the concave leg opening arches of the front panel, causing the stitched material **to be gathered together** and thereby define a genital pouch in the form of shirring when the stretching force is released.”) (emphasis added), 3:28-4:14 (“The elastic 78 in its **non-stretched condition is approximately two thirds** of the length of the leg opening arches running between point 56 of the underlying panel 16 and point 34 of the overlying panel 14, along the right leg opening, and similarly, the **elastic 78 is stitched in its stretched condition** along the arch 28 running between point 26 of under panel 16 and point 30 of the overlying panel 14... The elastic strips create a **gathering** and shirring forming a secure enclosure pouch for the male genitals as generally indicated in FIGS. 1 and 3.”) (emphasis added).)

66. This technique is common in the industry to create shape or volume. When elastic material is stretched and attached in its stretched state to other fabric, it is inclined to contract when the force stretching it is released. As such, the points of the fabric the elastic material is attached to are pulled closer, causing the fabric to be pushed outward, creating volume.

67. As shown by the arrows in Figure 8 of Brocks, the elastic strips are stretched in a lengthwise and widthwise direction, as they are pulled upward and outward from the bottom corners 30 and 34 of the “outer panel 14” of the front panel 12 towards the outer edges 26 and 56, with the unstretched length and width of the strips being smaller than the length and width measured along the seams after attachment in a stretched state (as indicated by the dotted lines in Figure 9, which shows the strips in a stretched state when being attached):

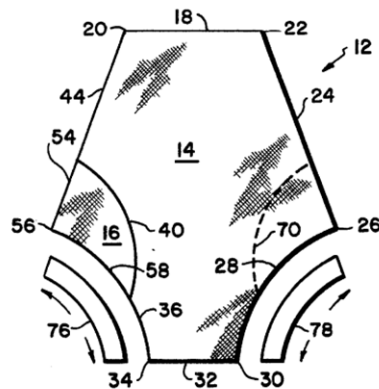


FIG. 8

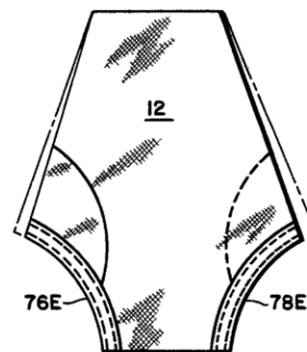
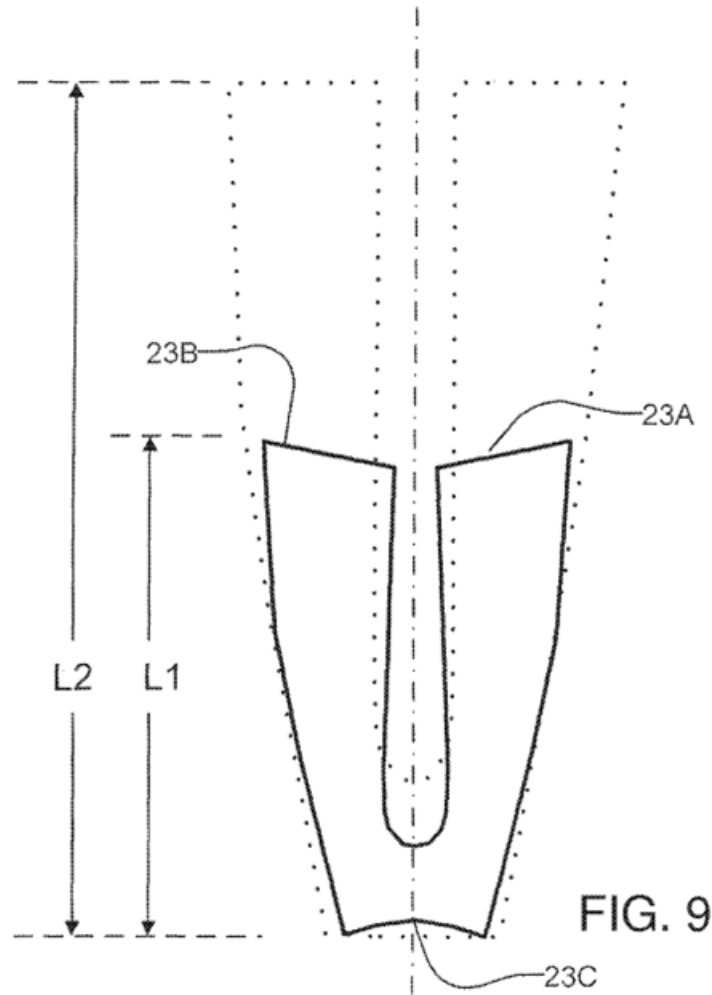


FIG. 9

(*Id.*, Figs. 8-9, 3:27-4:14.) The '974 Patent shows the same stretching in length and width as Brocks, illustrating in Figure 9, for example, how the stretch panel is stretched upwardly and outwardly:



(’974, Fig. 9.) The ’974’s stretch panel is stretched from its unstretched state (shown by the solid line) to a stretched state (shown by the dotted line) during assembly. (’974, 5:56-6:9.)

68. It would have been obvious to a POSITA to modify Kitsch to stitch Kitsch’s elasticized side panels to the front panel 18 in a stretched condition, as taught by Brocks, in order to create a “*gathering* and shirring *forming a secure* enclosure *pouch* for the male genitals.” (Brocks, 3:27-4:14 (emphasis added).)

Kitsch's side panels are elastic, like the elastic strips in Brocks, and could be similarly stretched before being attached at seams 20. Further, like the elastic strips in Brocks, the side panels in Kitsch are joined with a front panel along seams to create a pouch to support and enclose the wearer's genitals, and attaching them in a stretched state would help further define the pouch with sufficient volume for the wearer's genitals. (Kitsch, [0006]-[0009], [0026]-[0030], [0037]-[0039].)

69. A POSITA would have recognized that, as taught by Brocks, when the elastic side panels of Kitsch are stitched to the seams in a stretched state, they would contract after being sewn and would assist in creating a "gathering" of the front panel fabric to which they are attached, helping to form or define the supportive genital pouch. Such a modification would not require any additional materials. Kitsch already discloses that its side panels are elasticized material, and attaching this same material to the seams in a stretched state would allow the panels to continue to perform their same functions of cupping the genitals, inhibiting skin to skin contact, and wicking moisture, while also further adding to the gathering of fabric to create the supportive pouch.

70. A POSITA would have been motivated to modify Kitsch, as taught by Brocks, to attach the side panels along the seams when in a stretched state, stretching them upwards and outwards (*e.g.*, in a lengthwise and widthwise direction), to, again, aid in the formation of the pouch. Kitsch already teaches that the side panels

and pouch compartment fabric “cooperate” to form a pouch with cradle-like support that inhibits skin to skin contact. (Kitsch, [0037]-[0039].) Using the teachings of Brocks would simply further this cooperation in forming the pouch, as the side panels being attached in a stretched state and then being allowed to contract would add to the formation and supportive nature of the pouch.

71. A POSITA would have also understood that attaching the side panels in a stretched state, rather than an unstretched state, would merely be the simple substitution of one known method for another. A POSITA would have known that elastic can be sewn to other fabrics in either a stretched state or an unstretched state, and would have been motivated to try the method of attaching in a stretched state (*e.g.*, as taught by Brocks) in order to obtain the benefits of the elastic material assisting in “gathering” the material to which it is attached to form the pouch.

72. Thus, in sum and as explained, Kitsch as modified by Brocks discloses that the front portion is gathered from side-to-side and top-to-bottom by the stretch panel and defines a three-dimensional pouch between the stretch panel and front portion for receiving and holding the wearer’s genitals. That is, by stretching the elastic side panels upwardly and outwardly before attaching along seams 20 to the pouch compartment, the elastic side panels would gather the pouch compartment from top to bottom and side to side to assist in creating the volume of the pouch. This pouch, formed between the side panels and pouch compartment, would

continue to receive the wearer's genitals and hold them in a supportive manner while the garment is being worn. (Kitsch, [0031]-[0039]; *see also* [0006]-[0079], [0026]-[0027], [0029]-[0030].)

2. Dependent Claim 2

2: A male garment according to claim 1 wherein the stretch panel has asymmetrical stretch characteristics such that the stretch panel stretches more easily in a direction parallel to the waistband and less easily in a direction at right angles to the waistband.

73. Kitsch in view of Brocks renders obvious Claim 2. Claim 2 recites a well-known concept at the time of the '974 Patent – that asymmetric stretch materials may be used in men's underwear such that the materials stretch more in the direction the waistband may be pulled to open up the garment so a user can put them on, and less in directions perpendicular to the waistband. Asymmetric stretch simply means that a material can stretch more in one direction in another. This is as compared with symmetric stretch materials, which can stretch the same amount in all directions (*e.g.*, that can stretch the same amount left to right as they can top to bottom).

74. Indeed, Brocks discloses that materials used in men's underwear have such asymmetrical stretch characteristics, such that they that stretch more easily laterally (*i.e.*, in a direction parallel to the waistband) and stretch less easily longitudinally or along the vertical axis (*i.e.*, in a direction at right angles to the waistband). (Brocks, 1:23-32 (noting that “[t]he usual material employed [in men's briefs] is a cotton knitted material ***having stretch along the lateral axis and having***

very little stretch along the longitudinal or the vertical axis.”) (emphasis added), 4:2-13.)

75. It would have been obvious to apply this teaching of using material with asymmetrical stretch to the stretch panel of Kitsch, which as discussed is sewn to an underwear garment including at the waistband. For example, when a user pulls on and stretches the waistband to put on Kitsch’s underwear, the stretch panel would need to stretch in that direction at least as much as the waistband and body of the underwear, or else the underwear would risk tearing. For example, if the stretch panel could only stretch a very small amount parallel to the waistband as the waistband is stretched open, it could prevent the waistband from fully stretching open. This could limit the ability of a wearer to comfortably put on the underwear. Even if the waistband could open enough in a lateral direction for a wearer to put on the underwear, bunching of the waistband in the area of the stretch panel could occur if the stretch panel could only stretch a small percentage of the waistband’s stretch in that direction, which could lead to discomfort or rubbing in that area.

76. Similarly, as taught by Brocks, the material for the stretch panel would not need to stretch as much in a direction perpendicular to the waistband, as the fabric of the underwear itself does not stretch as much in that direction and there is less of a risk of, for example, tearing. That is, when underwear is put on, the waistband is stretched open in a direction parallel to the waistband. The underwear

is not also stretched from top to bottom perpendicular to the waistband when being put on, and so not as much stretch is required in this direction. Any stretch in the direction perpendicular to the waistband would need only account for normal stretch in that direction as the underwear is worn and moves with the wearer's body.

77. A POSITA would have been motivated to modify Kitsch, as taught by Brocks and as generally known in the art, to construct Kitsch's four-by-four stretch weave side panels such that they have asymmetrical stretch characteristics and would stretch more easily in a direction parallel to the waistband, such as when the waistband is opened for the underwear to put on, than in a direction at right angles to the waistband. Doing so would, for example, help accommodate the forces placed on the underwear by the wearer as it stretched open to be put on and during normal use, and would have ensured the stretch panel would not prevent the body material from stretching to accommodate the wearer's body.

78. Additionally, it would have been obvious to a POSITA for the elastic side panels in Kitsch to have asymmetric stretch such that they stretch more in, for example, a direction parallel to the waistband as I explain above. A POSITA would have known that elastic material, such as disclosed in Kitsch, must have either symmetrical stretch (*e.g.*, stretches the same in all directions) and asymmetrical stretch (*e.g.*, stretches more in one direction than another). A POSITA would have therefore found it obvious to try asymmetrical stretch material, as it would have been

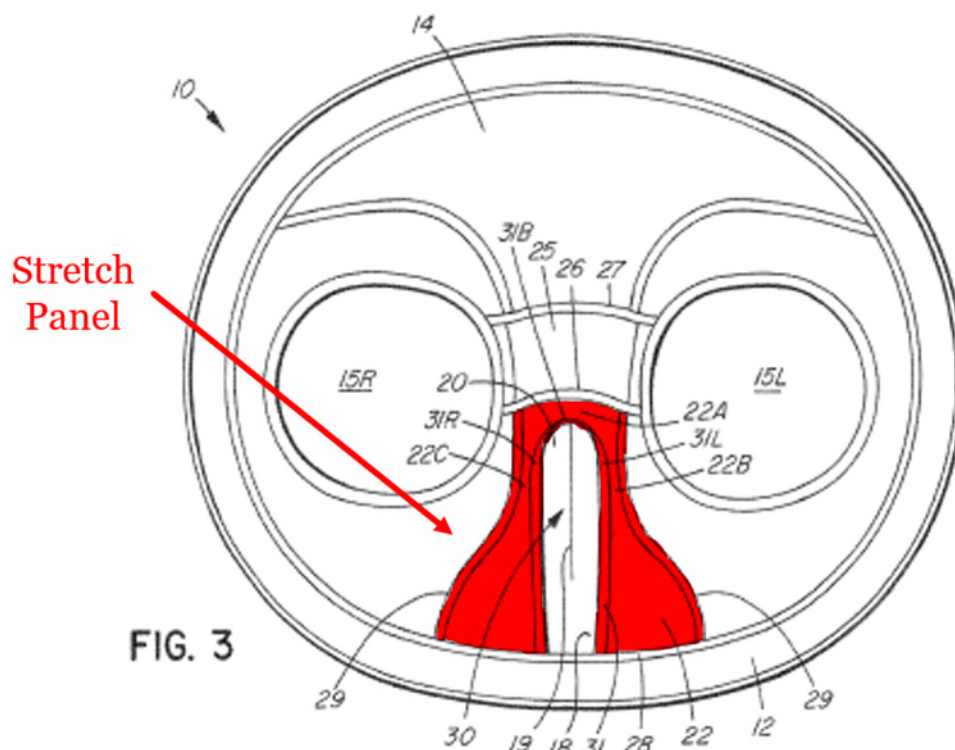
only one of two known options and it would have accounted for needing more stretch in the direction of the waistband when the underwear is opened up to be put on by a wearer. A POSITA would have been well aware of different, common types of elastic materials that have symmetric and asymmetric stretch characteristics, and it would have been routine for a POSITA to try different types of stretch material for different components when constructing underwear. This is a common practice when constructing underwear, or other garments—a POSITA would have tried different types of fabrics with different properties, including stretch properties, to create a final garment with the desired fit, look, and functionality. Further, applying this teaching would have been a simple, well-known way to implement or construct the four-by-four stretch weave side panels disclosed in Kitsch, which would continue to function as before, only now the wearer could stretch the underwear more in the lateral direction. For example, a POSITA could have controlled the specific areas that have stretch by, for example, stitch length, yarn tension, rows and/or plies of Spandex, or type of stitch or weaving.

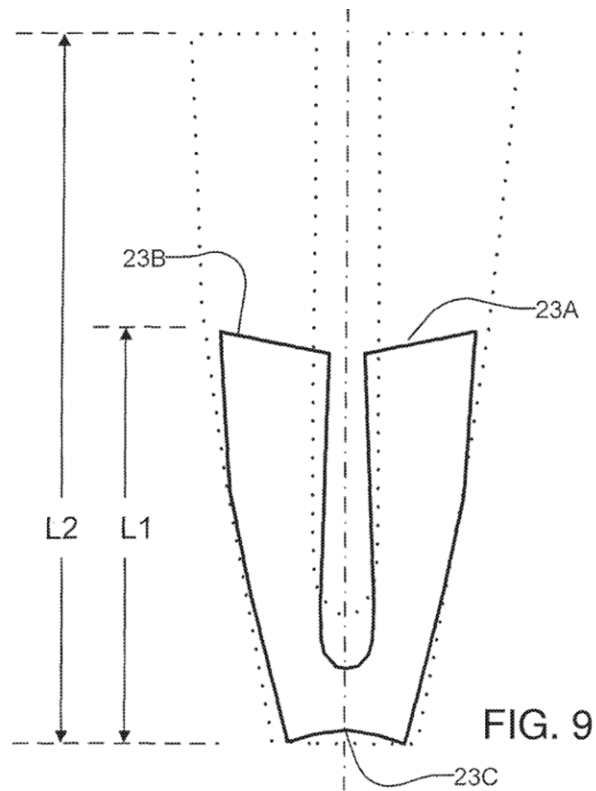
3. Dependent Claim 3

3: A male garment according to claim 1 wherein the stretch panel is rectangular and the opening is U-shaped.

79. Kitsch in view of Brocks renders obvious Claim 4. The '974 Patent indicates that something does not need to be perfectly rectangular, with four sides meeting at right angles to each, to be considered “rectangular.” Instead, the '974

Patent indicates that its stretch panel 22 can be “generally rectangular,” with a U-shaped opening. (’974, 4:40-52.) Further, the ’974 Patent suggests that for the stretch to be rectangular, it need only have sides along side seams 29 that are “generally straight” and “generally perpendicular” to the waistband. (*Id.*) The ’974 Patent’s stretch panel can be seen, for example, in Figures 3 and 9:





('974, Fig. 3 (annotated), Figure 9.)

80. Kitsch discloses that its side panels 12 (*e.g.*, “stretch panel”) form a similar rectangular shape, with substantially or generally straight parallel sides and top and bottom edges:

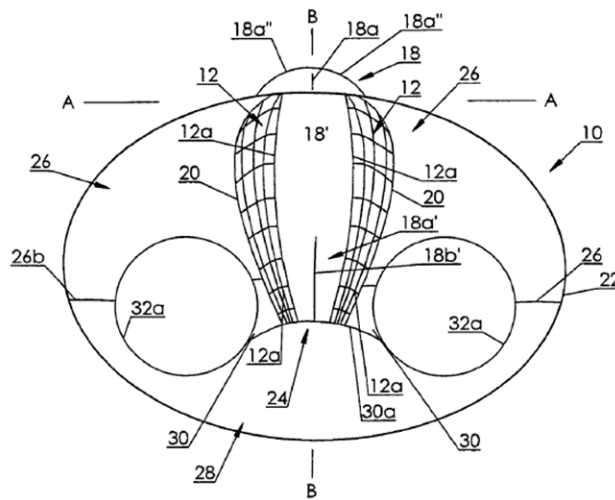


FIG 8

(Kitsch, Fig. 8; [0026]-[0028]; *see also* [0008], Figs. 3, 9.) Moreover, the opening between the side panels 12 in Kitsch is generally U-shaped, following the shape of the front panel 18 along the seams 26a that attach the side panels 12 to the “pear-shaped” pouch compartment 18:

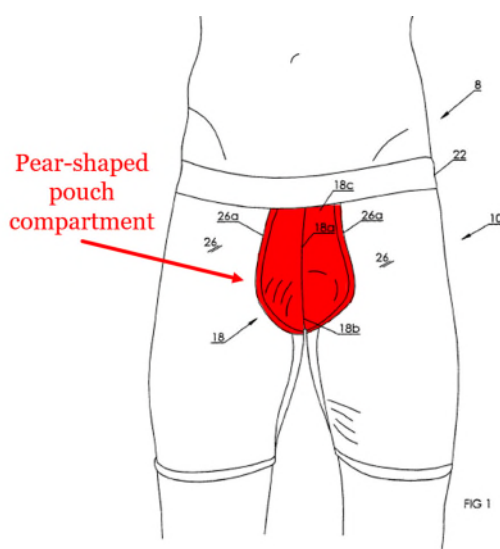


FIG 1

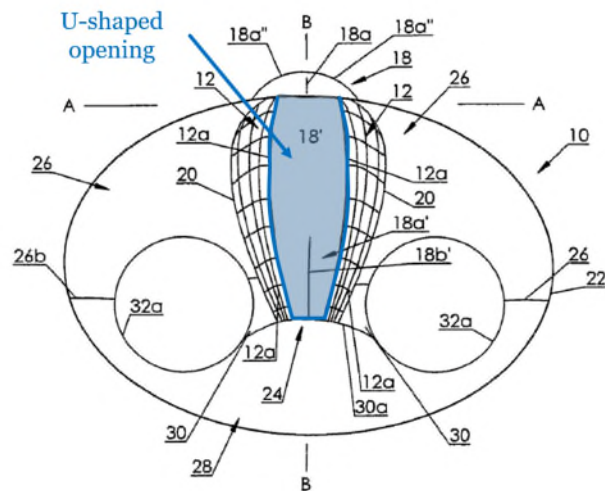


FIG 8

(*Id.*, Figs. 1, 8 (annotated); *see also* Figs. 2-3, [0029], [0036]-[0039].)

4. Dependent Claim 4

4: A male garment according to claim 3 wherein the stretch panel comprises a fabric having a stretch of at least 30%.

81. As Kitsch in view of Brocks renders obvious Claim 4. As I explained above, it would have been obvious to modify Kitsch to attach the elastic stretch panels 12 to the front portion 18 while it is in a ***stretched condition***, as taught by Brocks, in order to, for example, gather the fabric to form the supporting pouch. See *supra* ¶¶63-72.

82. Brocks further discloses that the elastic strips “in their unstretched condition are approximately two-thirds the length of each leg opening arch of the front panel. In assembling, the elastic strips are each stretched to the length of the concave leg opening arches of the front panel, causing the stitched material to be gathered together and thereby define a genital pouch[.]” (Brocks, 2:5-13, Abstract, 3:24-4:14.) That is, the stretched length of the elastic strips in Brocks is 50% greater than the unstretched length (*i.e.*, $(100-66.\overline{6})/66.\overline{6} = 50\%$)³, indicating the elastic fabric can stretch by at least 30%.

³ I calculated the “stretch” of the elastic strips using the method described in the ’974 Patent. The ’974 Patent explains that the stretch of the stretch panel can be calculated by subtracting the unstretched length of the stretch panel from the stretched length of the stretch panel, and then dividing by the unstretched length of the stretch panel.

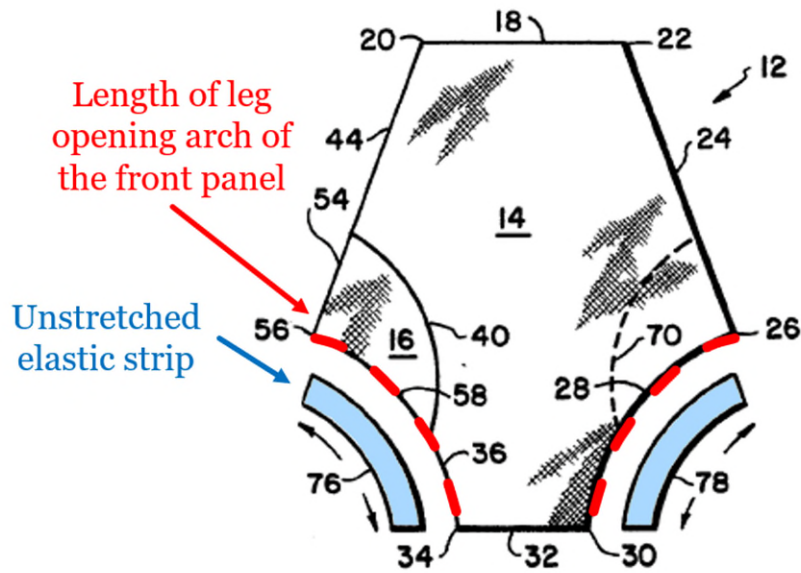


FIG. 8

(’974, 5:29-45.) The ’974 Patent provides an example of how this is done, stating that if the unstretched length is 25cm and the stretched length is 50cm, the stretch panel would have 100% stretch through the calculation $(50-25)/25 = 100\%$. (*Id.*)

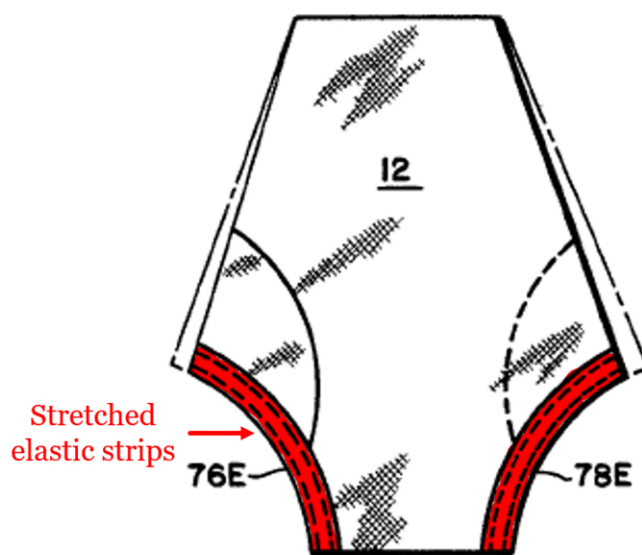


FIG. 9

(Brocks, Figs. 8-9 (annotated).)

83. It would have been obvious to use a stretch panel that has at least 30% stretch, such as a stretch of 50% as taught by Brocks, for the same reasons as set forth above. *See supra* ¶¶63-72. In addition, in order to ensure that the elasticized side panels have sufficient elasticity to gather the fabric, a POSITA would have been motivated to use elastic material with at least 30% stretch. (Brocks, 2:5-16, 3:23-4:14.) The stretch of the stretch panel is related to the volume of material it is able to gather. If the stretch panel could only stretch a little, such as 5%, then even if it were attached to the fabric of the front portion of the underwear in a stretched state, it would only be able to retract slightly and gather a little bit when released. A POSITA would have understood that, if the elastic material did not have enough

stretch, it would not be able to “gather” enough fabric when released from the stretched state to an unstretched state to create a pouch with sufficient volume. Thus, to get a pouch with sufficient volume to support and separate the genitals, a POSITA would have understood the stretch panel should have at least 30% stretch, as taught by Brocks.

5. Dependent Claim 5

5: A male garment according to claim 1 wherein the top location is the waistband seam and the bottom location is the first seam, and a length measured along material of the front portion from the first seam to the waistband seam exceeds a length measured along the fabric of the stretch panel, when unstretched, by at least 30%.

84. Kitsch in view of Brocks renders obvious Claim 5.

85. **First**, Kitsch discloses that the top location of the body is the waistband seam, and further discloses that the side panels are attached to this top location as the “upper ends 12c of side panels 12” are “stitched to the front walls 26 and ***waistband 22 of brief 10.***” (Kitsch, [0029] (emphasis added), [0008]-[0010], [0036].) Kitsch shows this attachment of the top edge of the stretch panels to the top location of the body at the waistband seam in Figure 3, for example:

Top edge of
side panels
attached to
body at a top
location

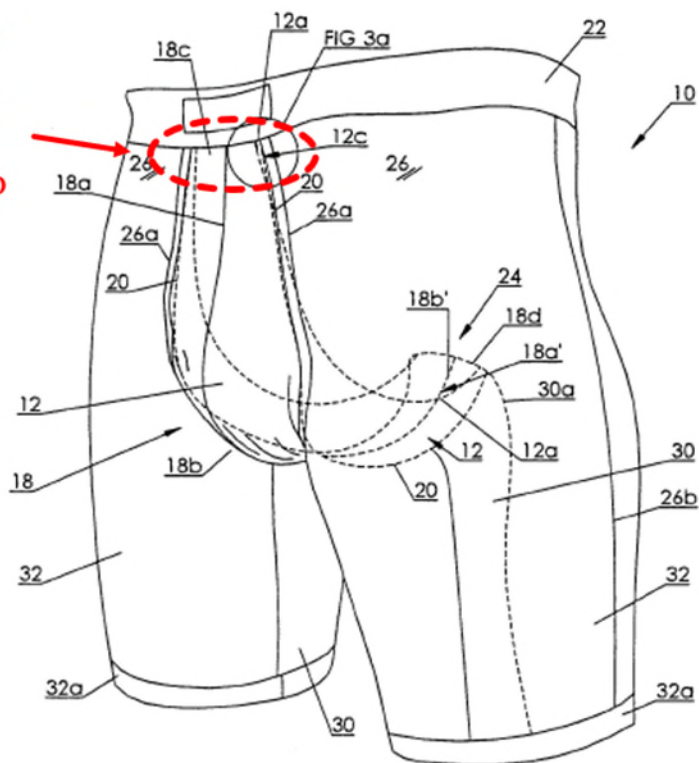


FIG 3

(*Id.*, Fig. 3 (annotated); *see also* Figs. 1, 7.)

86. Similarly, Kitsch discloses that the bottom location of the body where the bottom edges of the side panels 12 attach is at a “first seam,” as the bottom edge of the side panels are attached to seam 30a around the perineum area 24, as shown, for example, in Figure 8:

¶¶63-72, 81-83. Brocks explains that the elastic strips are stretched before they are attached to the material of the front portion of the fabric. Therefore, the two positions on the front portion of the underwear where the elastic strips are attached must have a greater length measured between them than the length of the elastic strips in their unstretched state, as the unstretched elastic strips must be lengthened by stretching to reach the two attachment points. Because the unstretched length of each strip in Brocks is only 66% of the length of the front portion fabric to which the elastic is attached in the stretched condition, a length measured along the front portion fabric is at least 30% greater than the length of each unstretched elastic strip. (Brocks, 2:5-16, 3:24-4:14, Figs. 8-9.)

88. As discussed above, it would have been obvious to modify Kitsch in view of Brocks to use elastic material for the elastic side panels that is stretched by at least 30% when attached to Kitsch's front portion, pouch compartment 18. As I explained above, a POSITA would have understood that this would help ensure the elastic side panels gather the front portion into a pouch with sufficient volume. See *supra* ¶¶63-72, 81-83. Incorporating this teaching into Kitsch to form or define the pouch would result in side panels whose length unstretched is at least 30% less than the length of a measurement along the material of the front portion to which the side panels are attached in their stretched state.

6. Dependent Claim 6

6: A male garment according to claim 1 wherein the garment is a pair of undershorts.

89. Kitsch in view of Brocks renders obvious Claim 6. Kitsch's garment is "an underwear garment for use by a male." (Kitsch, Abstract; *see also* [0002], [0006]-[0007].)

7. Dependent Claim 7

7: A male garment according to claim 1 wherein the stretch panel comprises a fabric different from a fabric of the body.

90. A Kitsch in view of Brocks renders obvious Claim 7. Kitsch discloses, for example, that (a) the side panels forming the stretch panel may be made of a material "containing 80% Nylon™ and 20% Spandex™" and (b) the body may be made of 82% polyester and 18% Spandex™, or a combination of 82% polyester/18% Spandex™ fabric and 92% cotton, 8% Spandex™ fabric." (Kitsch, [0025]-[0026].) Thus, the material of the stretch panel being Nylon™ and Spandex™ is different from the material of the body being made from polyester and Spandex™, or polyester, Spandex™ and cotton.

8. Dependent Claim 8

8: A male garment according to claim 1 wherein the opening has a width in excess of 2 cm.

91. Kitsch in view of Brocks renders obvious Claim 8. Kitsch discloses and renders obvious that the opening in the lateral spacing between the side panels 12

has a width in excess of 2 cm. It is clear from Kitsch's figures, and its descriptions of the side panels working in cooperation with pouch compartment 18 to form a pouch to receive the genitalia and provide cradle-like support that the opening is in excess of 2 cm. For example, Kitsch depicts the opening in Figures 3 and 8 to be large enough to accommodate a phallus and scrotum into the pouch compartment, and in Figure 7 depicts a phallus and scrotum inserted into the opening of the pouch compartment. (Kitsch, Figs. 7-8; *see also* Fig. 3.) Moreover, as I mentioned, Kitsch describes how the side panels receive and isolate the phallus and scrotum into the pouch compartment. (*Id.*, Abstract, [0006]-[0009], [0026]-[0027].) With an opening that is too small, for example on the order of 1 or 1.5 cm, a wearer would have their genitals uncomfortably pinched by the stretch panel or would not be able to insert their genitals into the pouch at all. Further, Kitsch discloses that the "width from the lateral exterior side seams 26a," which are shared by the side panels, "to the center seam 18a optimizes a maximal volume while maintaining support." (*Id.*, [0036]-[0040].) A POSITA would have understood that to have a width that "maximizes volume," it would be greater than 2 cm. If the width were smaller than 2 cm, then the seams would be too close together for the pear-shaped pouch compartment to have enough volume to receive and support the wearer's genitalia. Thus, a POSITA would have understood that the opening between the side panels would have a width in excess of 2 cm. If the opening between the two side panels were not at least 2 cm,

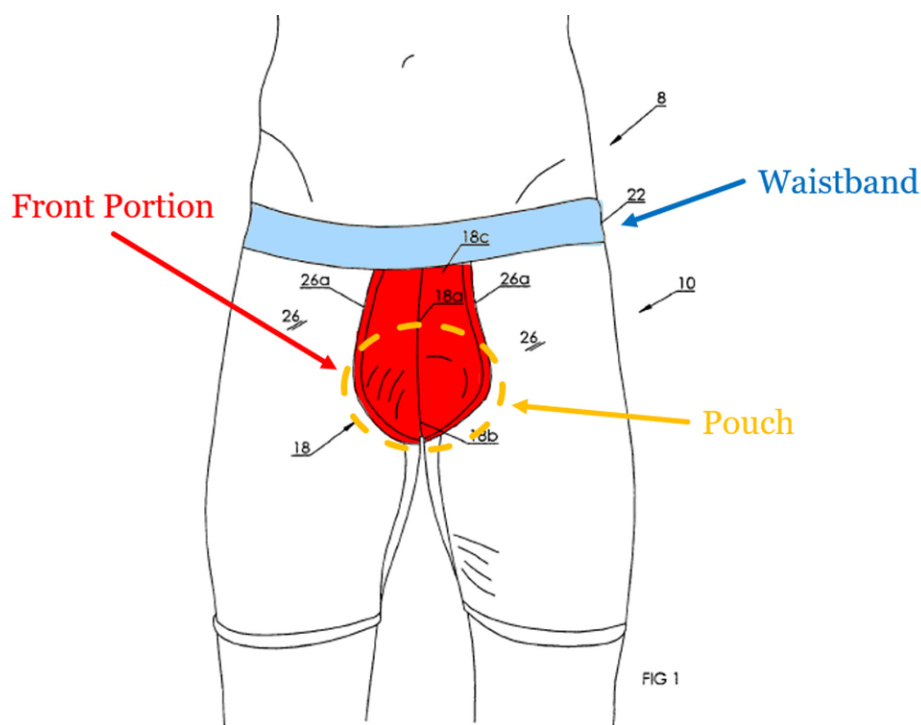
then a wearer would be unable to insert their genitals into the pouch, with the side panels then pushing the phallus and scrotum back against the groin area. As Kitsch is focused on avoiding such contact between the genitals and groin area and inner legs of the wearer, a POSITA would have understood the opening into the pouch would be greater than 2 cm, or at the very least it would have been obvious to try different sized openings, including greater than 2 cm, to accommodate genitals of different sizes. For these same reasons, it would have been obvious to a POSITA when implementing or constructing Kitsch's underwear to make the opening larger than 2 cm wide.

9. Dependent Claim 9

9: A male garment according to claim 1 wherein: the front portion depends downwardly from the waistband and the front portion is formed to provide the pouch at a mid-section thereof; the stretch panel is positioned to be disposed forward of the wearer's perineum when the garment is worn, whereby, in use, a scrotum of the wearer of the garment is supported underneath by the stretch panel to contain the wearer's penis and scrotum in the pouch.

92. Kitsch in view of Brocks renders obvious Claim 9.

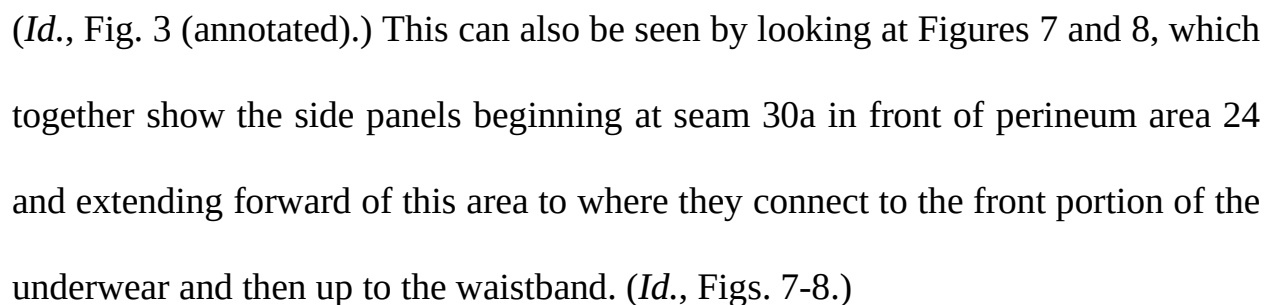
93. **First**, Kitsch discloses that the front portion of the body of its underwear, "pouch compartment 18," depends downwardly from the waistband, with the genital pouch compartment 18 being formed into a pouch at a mid-section of the body below the waistband as shown in the figure below:



94. (Kitsch, Figure 1 (annotated), Abstract (noting the garment includes a “genital pouch and a pair of side panels collectively formed in a mid-section of a front wall depending from a waistband”); *see also* [0007], [0029], Cl. 1.) As can be seen, the front portion depends from, or extends downwardly from, the waistband to which it is attached.

95. **Second**, Kitsch explains that its side panels, forming the stretch panel, are positioned to be disposed forward of the wearer’s perineum when the garment is worn. Kitsch discloses that the side panels form “upwardly from adjacent the perineum[,] generally vertical extending scrotum fences towards the waistband. The side panels are spaced so as to snugly engage sides of the scrotum and to substantially completely cover over and support the sides of the scrotum.” (*Id.*

96.



97. Kitsch further discloses that, with this configuration, the “pair of side panels 12 are preferably formed so as to cup the genitalia, that is, are formed so as to be cupped in laterally opposed facing relation to inhibit skin-to-skin contact between a user's thighs and scrotum,” and that they “resiliently cradl[e]” and bias the scrotum back to a natural resting position. (*Id.*, [0029]; *see also* Abstract, [0009], [0026]-[0028], [0031]-[0034], [0037]-[0041].) That is, the side panels cup, or support, the genitalia and help to contain the genitals in the pouch compartment. (Kitsch, [0036]-[0040].) *See also supra* ¶¶63-72.

10. Dependent Claim 10

10: A male garment according to claim 1, wherein the elastically resilient four-way stretch material is comprised of a spandex blend.

98. Kitsch in view of Brocks renders obvious Claim 10. Kitsch discloses that the elastically resilient four-way stretch material of side panels 12 is a spandex blend “containing 80% Nylon™ and 20% Spandex™.” (Kitsch, [0030].) *See also supra* ¶¶50-51.

11. Dependent Claim 11

11: A male garment according to claim 1, wherein the stretch panel is fastened to the front portion while in a pre-stretched condition while the front portion is less stretched, whereby the stretch panel is biased to hold the opening open while the garment is held in position to be put on.

99. Kitsch in view of Brocks renders obvious Claim 11.

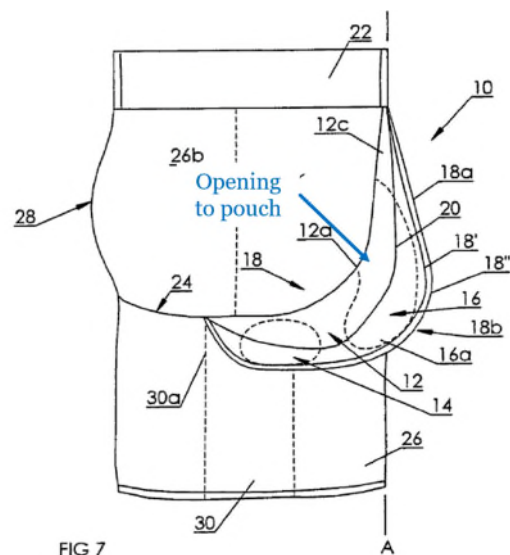
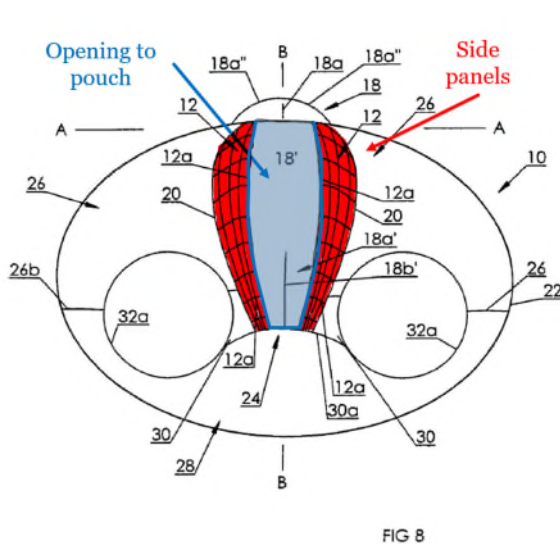
100. *First*, Kitsch, as modified by Brocks as I described above, includes a stretch panel (*e.g.*, side panels 12) fastened to a front portion 18 while “in a pre-

stretched condition, while the front portion is less stretched.” *See supra* ¶¶63-72. Again, Brocks discloses stretching elastic material, which in its unstretched state is shorter in length than the front panel of the men’s underwear to which it will be attached, and attaching the elastic material in a pre-stretched condition to an assembled front panel that is in a “less stretched” condition. *Id.*

101. In particular, as is clear from Brocks, only the elastic material, and not the assembled front panel, is stretched when the elastic strips are stitched to the front panel. (Brocks, 1:64-2:16, 3:24-4:14.) Because the elastic material has significant recovery, as discussed above, when it is put under tension and stretched, it will recover back to its unstretched condition when that tension is released. Thus, when attached and the stress force released, the elastic side panels cause the less stretched front portion material 18 to “be gathered together and thereby define a genital pouch,” as taught by Brocks. (Brocks, 2:5-21, 4:2-14.) If both the elastic material and front panel material were both the same length unstretched and then stretched the same amount when attached together, there would be no gathering.

102. *Second*, the elastic side panels, attached in a stretched condition, would be biased to hold the opening open due to the tension placed on the elastic panels while the garment is held in position to be put on (*e.g.*, the stretched elastic side panels would maintain the lateral space between them that provides the opening into the pouch having sufficient volume to receive the genitals). When a wearer puts on

underwear, they hold the garment and stretch open the underwear at the waistband to create enough space to put the legs through the leg openings and pull the underwear up over the legs and waist. When Kitsch's underwear, with the elastic side panels attached while in a stretched condition as explained above, is stretched open at the waistband so a wearer can put them, the side panels would also stretch out and open up the opening during this process, making them taut as they extend to their stretched position. This would maintain the separation between the two side panels that forms the opening into the pouch. Thus, as shown in Figures 3 and 8 of Kitsch, the stretched elastic side panels would be biased to hold the opening between them into the pouch open when a wearer puts the underwear on (*e.g.*, the stretch panels do not overlap each other or otherwise lay so they cover or block the opening into the pouch, but instead stretch and define the opening between them):

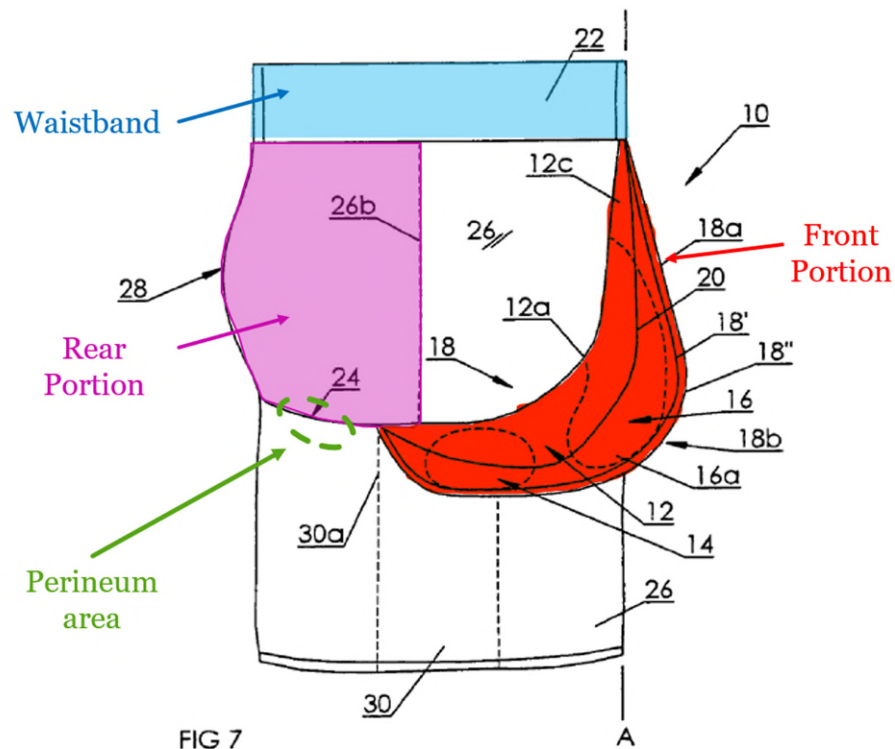


(Kitsch, Figs. 7-8 (annotated), [0026]-[0027] (noting that the “interior side-panels 12, preferably constructed of an elasticized breathable mesh fabric” are added “for the purpose of isolating the genitalia, in particular scrotum 14 and phallus 16 (shown diagrammatically in dotted outline in FIG. 7), into the pouch compartment 18, thereby isolating the genitalia from contacting the inner thighs and legs of the user 8 wearing the briefs a user.”); *see also* [0037]-[0039], Fig. 3.)

12. Dependent Claim 12

12: A male garment according to claim 11, wherein the front portion is attached to a rear portion of the body that depends from the waistband at a seam disposed forward of the perineum region of the wearer, and wherein a bottom edge of the stretch panel is fastened to the seam.

103. Kitsch in view of Brocks renders obvious Claim 11. Kitsch’s underwear includes a “rear panel 28” that forms a rear portion of the body and that depends from the waistband 22:



(Kitsch, Fig. 7 (annotated), [0041].) As shown above, the rear portion 28 depends from, or extends downward from, where it is attached to the waistband. Further, in Kitsch's underwear, the front portion, "pouch compartment 18," is attached to the "rear panel 28" at a seam 30a disposed forward of the perineum area 24:

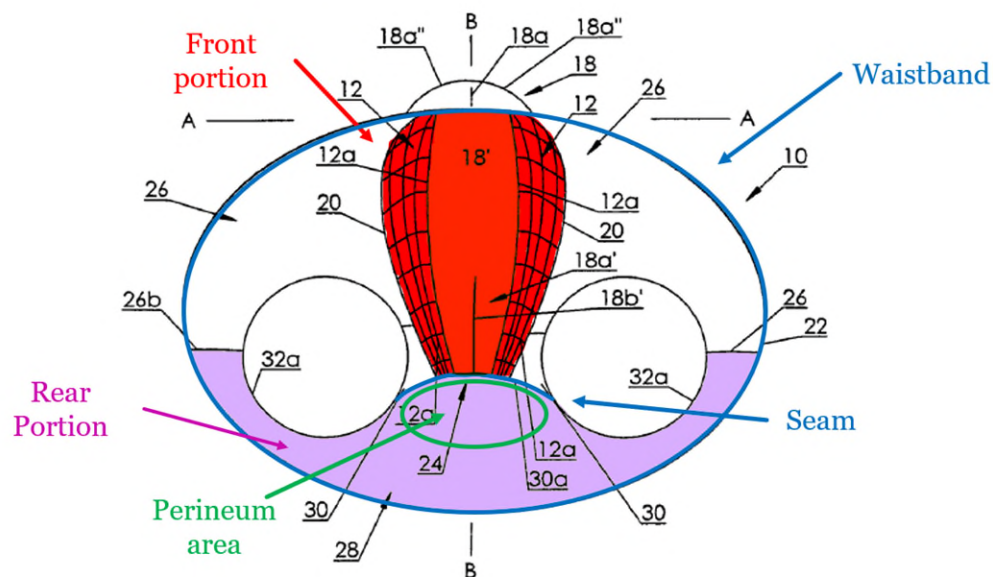


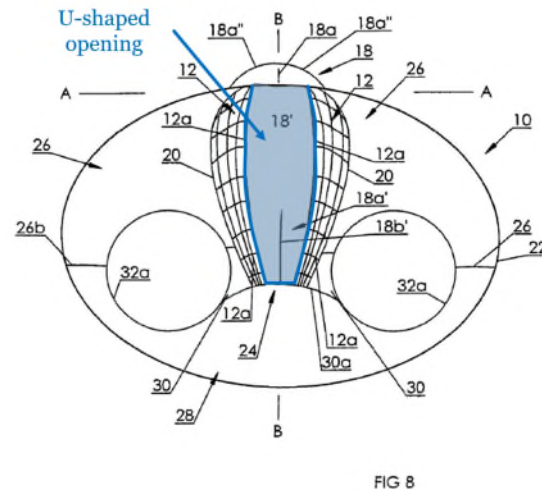
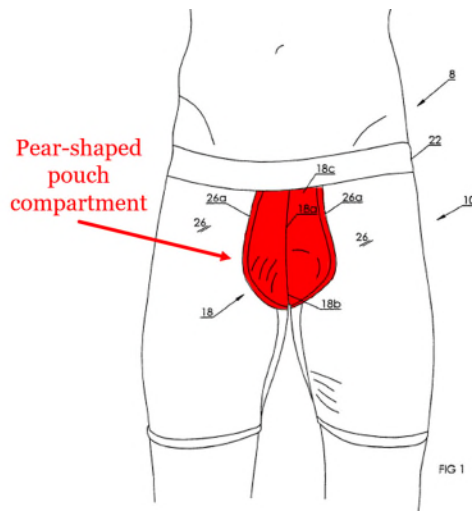
FIG 8

(Kitsch, Fig. 8 (annotated), [0041]; *see also* Figs. 3, 7 (annotated above), [0035]-[0040], Cl. 1.) In particular, Kitsch notes that seam 30a is at “the rearmost end of pouch compartment 18,” which is where the pouch compartment joins the rear portion. Moreover, as shown in Figure 8 above, the bottom edge of the side panels 12 (*e.g.*, the bottom edge of the stretch panel) are fastened at the same seam 30a. (*Id.*, Fig. 8 (annotated); *see also* Figs. 3, 7, [0035]-[0041].) *See also supra* ¶¶55-60.

13. Dependent Claim 13

13: *A male garment according to claim 1 wherein the opening has a U-shape when the stretch panel is in a relaxed state.*

104. Kitsch in view of Brocks renders obvious Claim 13. Again, the opening between the side panels 12 into the pouch is generally U-shaped, as shown in Figures 1 and 3:



(*Id.*, Figs. 1, 8 (annotated), Fig. 3, [0029], [0036]-[0039].) See also *supra* ¶¶79-80.

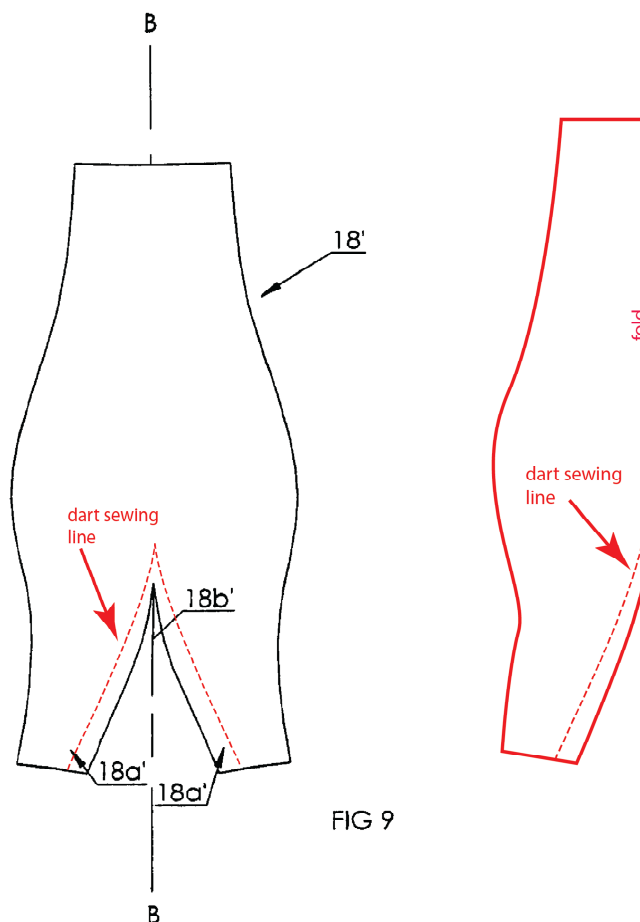
The shape of the opening to the pouch when the side panels are in a relaxed state (both before and after attachment) would be the same.

14. Dependent Claim 15

15: A male garment according to claim 1 wherein the pouch comprises a dart seam stitched along a bottom portion of the pouch and centrally to provide extra volume in front of and underneath the genitals of the wearer.

105. Kitsch in view of Brocks renders obvious Claim 15. Kitsch discloses that the inner liner 18' of the pouch comprises a dart seam 18b' that joins “a pair of divergent tails” to form “a shelf-like tableau or plateau 18a' cradling the underside of scrotum 14.” (Kitsch, [0030], [0036], Figs. 3, 8-9.) This forms a dart seam stitched along the bottom of the pouch. A dart seam is a well-known sewing technique in which a dart is formed by removing a wedge of material and folding the fabric onto itself. The fabric is then sewn along the dart sewing line and then unfolded. This allows a 2-dimensional pattern piece of fabric to be made into a 3-dimensional shape.

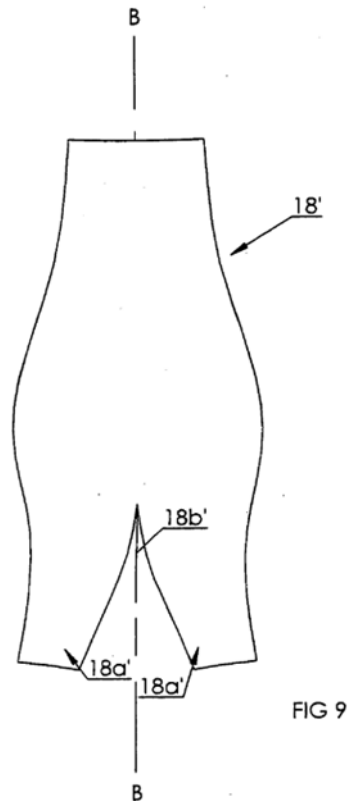
Kitsch discloses a pattern piece with such a wedge of material removed to form a dart in Figure 9:



(*Id.*, Figure 9 (annotated).)

106. As shown above, Kitsch's piece of fabric will be folded and a dart seam will be sewn along the dart sewing line. This dart helps form the dimensional shape of the front portion of the under-wear that covers the genitals. In particular, the dart seam in Kitsch is formed by using a piece of fabric for the inner liner 18' of the

pouch with a “wedge” cut out of the bottom of it, forming the two “divergent tails”
18a’:



(*Id.*, Fig. 9.) When these two tails are sewn together at dart seam 18b’, the fabric no longer lays flat and instead the dart seam creates dome-like volume where the two “tail” pieces are pulled together and sewn.

107. In Kitsch, dart seam 18b’ is stitched along a bottom portion of the pouch as it sewn at the divergent tail ends of 18’ in the rearmost area of pouch 18, and is centrally in the middle of the pouch compartment:

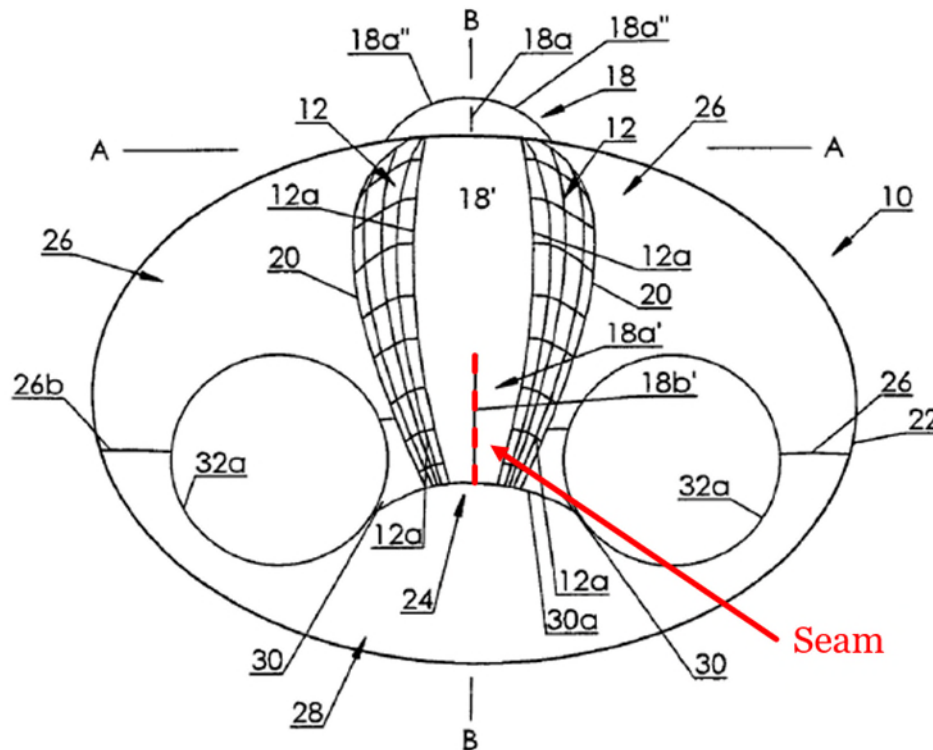


FIG 8

(*Id.*, Fig. 8 (annotated); *see also* Figs. 3, 9, [0030], [0036].) Again, this seam creates extra volume in front of and underneath the genitals of the wearer, as it forms “a shelf-like tableau or plateau 18a’ cradling the underside of scrotum 14,” and, in combination with seams 26a, contributes to the pear shape of the pouch compartment creates “greater rear pouch volume.” (*Id.*, [0030]-[0033], [0035]-[0036].)

15. Dependent Claim 16

16: *A male garment according to claim 1 wherein the stretch panel is rectangular and the opening has a rounded bottom edge and opposing side edges that are spaced apart from one another on either side of the opening.*

108. Kitsch in view of Brocks renders obvious Claim 16. Kitsch discloses that its side panels 12 (*e.g.*, “stretch panel”) form a rectangular shape, with

substantially parallel opposing side edges spaced apart from each other, a top edge, and a bottom edge along curved seam 30a:

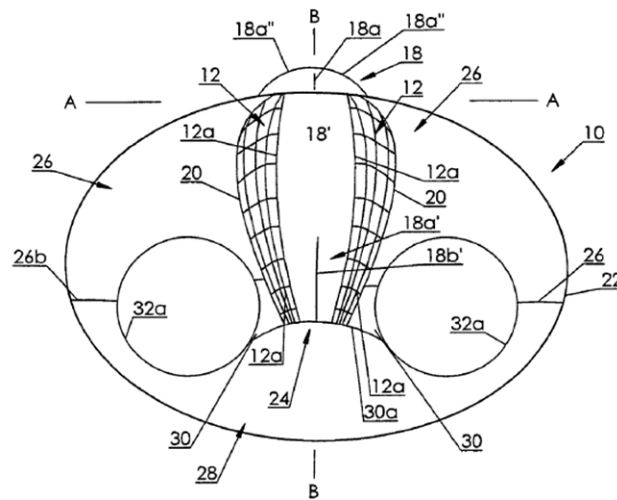


FIG 8

(Kitsch, Fig. 8; [0026]-[0028], Fig. 3.) *See also supra ¶¶79-80.* Moreover, the opening between the side panels 12 has a rounded bottom edge, following the curve of seam 30a at the bottom of the opening:

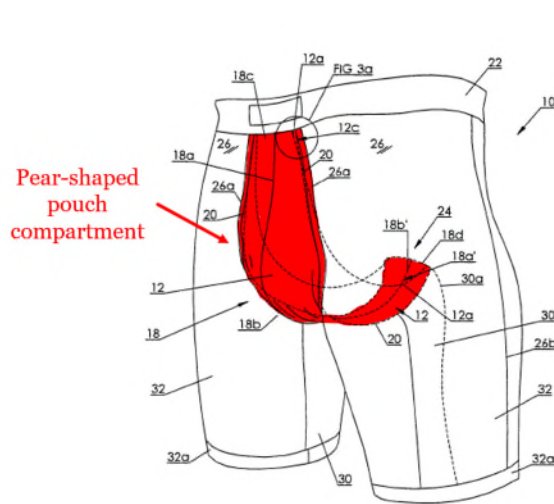


FIG 3

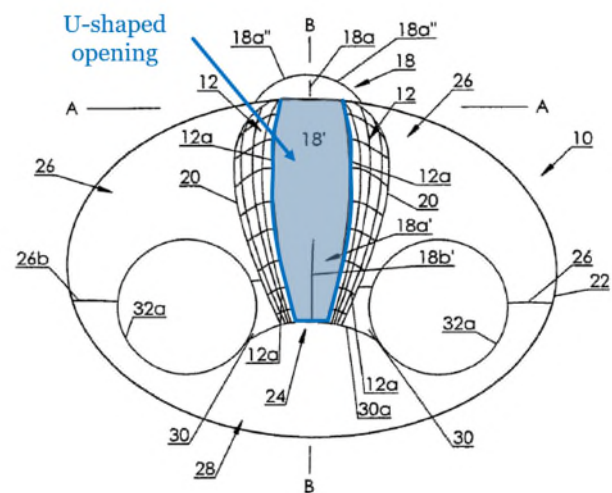


FIG 8

(*Id.*, Figs. 3, 8 (annotated); *see also* Fig. 2, [0029], [0036]-[0040].) In addition, the side edges of the side panels 12 are spaced apart on either side of the opening, as shown above. (*Id.*)

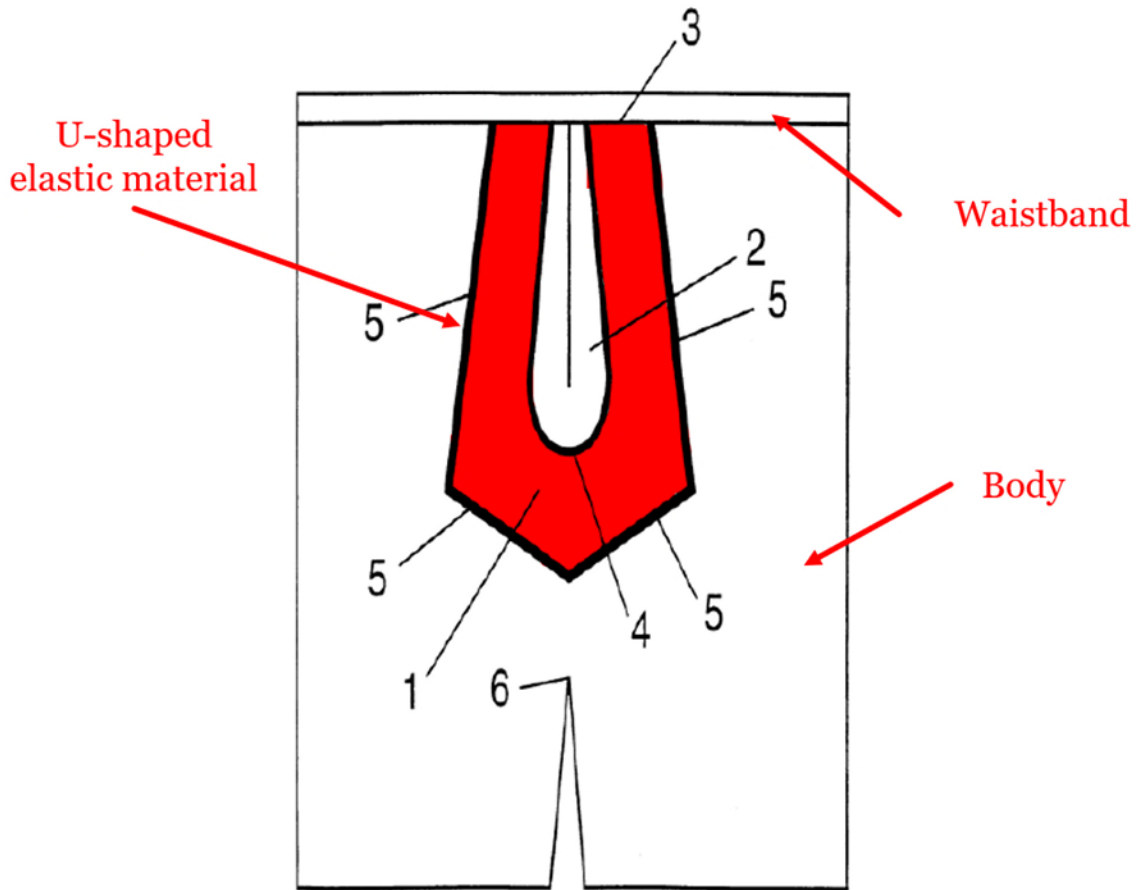
B. Ground 2– Carrillo in View of Brocks Renders Obvious Claims 1-9, 11, 13, and 16.

109. I have also reviewed Carrillo. Carrillo, entitled “Hygienic Garment for Men’s underwear,” like Kitsch, is directed to an underwear garment for men with a pouch to hold a wearer’s genitals between the front portion of the garment and elastic material attached to the inside of said front portion. (Carrillo, Abstract, 1-3.)

110. Carrillo was filed on November 16, 2000, and published May 31, 2001. I understand Carrillo is prior art.

111. My review of the ’974 Patent file history shows that Carrillo was not used in any Office Actions to reject any claims during prosecution of the ’974 Patent.

112. Carrillo discloses underwear for men or boys with a “U-shaped elastic garment (1)” with a “tear-shaped” opening attached to the inside of a front portion of the underwear as seen below:



(Carrillo, Fig., Abstract, 2-3.) The U-shaped elastic material and front portion of the underwear form a pouch to hold a wearer's genitals when the underwear is worn and the genitals are introduced through the pouch opening 2. (*Id.*, Abstract, 2-3.) Carrillo explains that this U-shaped elastic gently pulls a wearer's "intimate parts" forward through the opening towards the front to achieve "sufficient separation" and "reduce continuous direct contact and friction" between the testicles and the groin (*Id.*, Abstract, 2-3.)

1. Independent Claim 1

113. As viewed by a POSITA, Carrillo in view of Brocks renders obvious Claim 1.

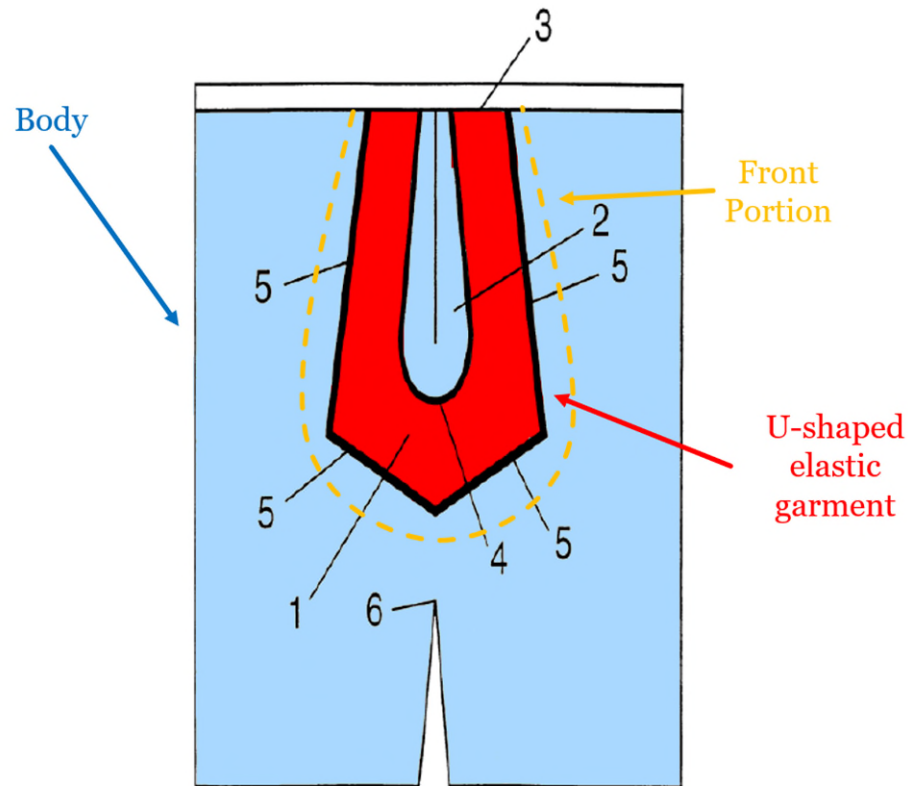
1[pre]: A male garment comprising:

114. To the extent limiting, Carrillo in view of Brocks renders obvious 1[pre]. Carrillo is titled “Hygienic Garment for Men’s Underwear,” and describes underwear “made for men.” (Carrillo, 1, 2; *see also* Abstract, 3.)

1[a]: a body including a front portion and having leg openings for a wearer’s legs;

115. Carrillo in view of Brocks renders obvious 1[a]. Carrillo discloses a body of “classic underpants” that may be “classic briefs.” (Carrillo, Abstract, 2; *see also* 1-3.) Briefs were a well-known type of underwear that include, as shown in Carrillo, a waistband portion, front part, rear part, and leg portions. The length of the leg portions can vary depending on the type of underpants. Carrillo’s underwear body has a front portion, as it has an “inner front part of the underwear” where Carrillo describes an elastic garment 1 is sewn. (Carrillo, Abstract, 2-3.) Carrillo shows the “inner front part” in its Figure, as that Figure shows the inside of the underwear with the elastic garment attached. Of course, the front of the body would also have an “outer front part” on the other side of the “inner front part.” The body further includes leg openings for the wearer’s legs like those of the “standard brief.”

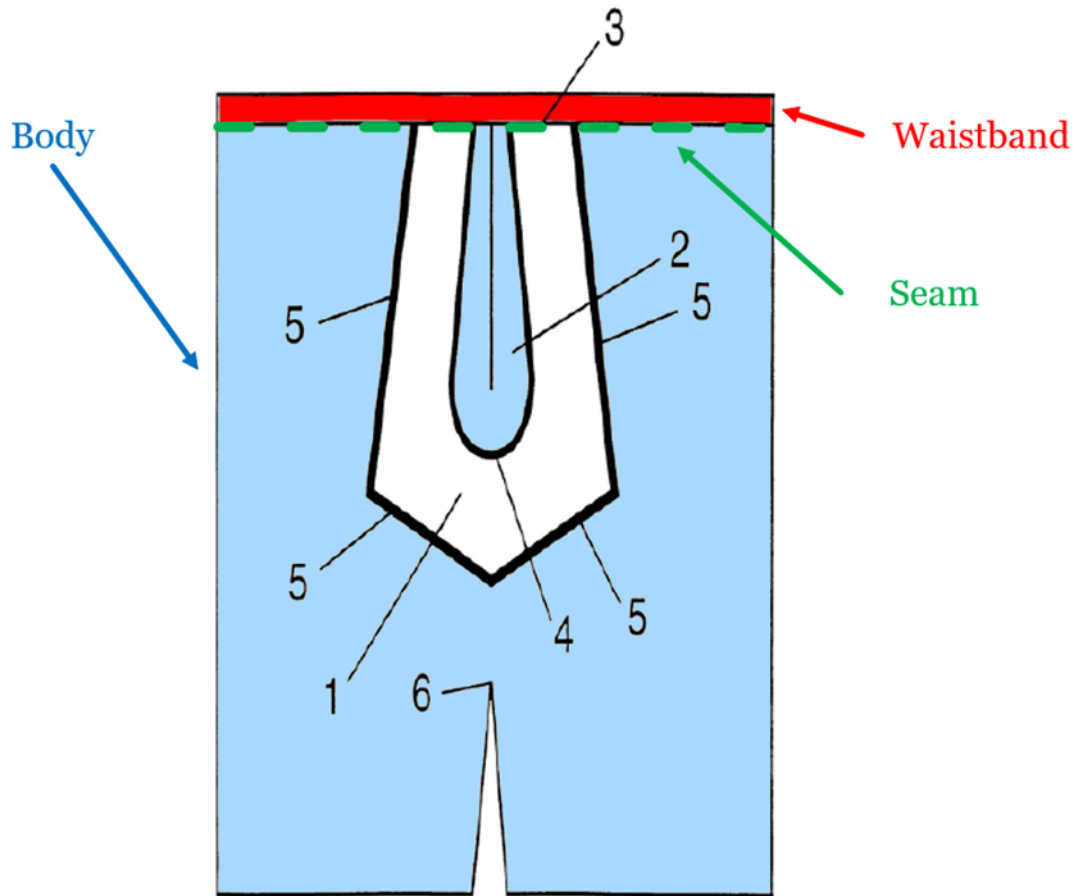
(Carrillo, Abstract, 1-3.) The body of Carrillo's underwear, including the front portion and leg openings, is shown in the annotated figure below:



(Carrillo, Fig. (annotated), Abstract, 1-3.)

1[b]: a waistband attached by a waistband seam at an upper edge of the body;

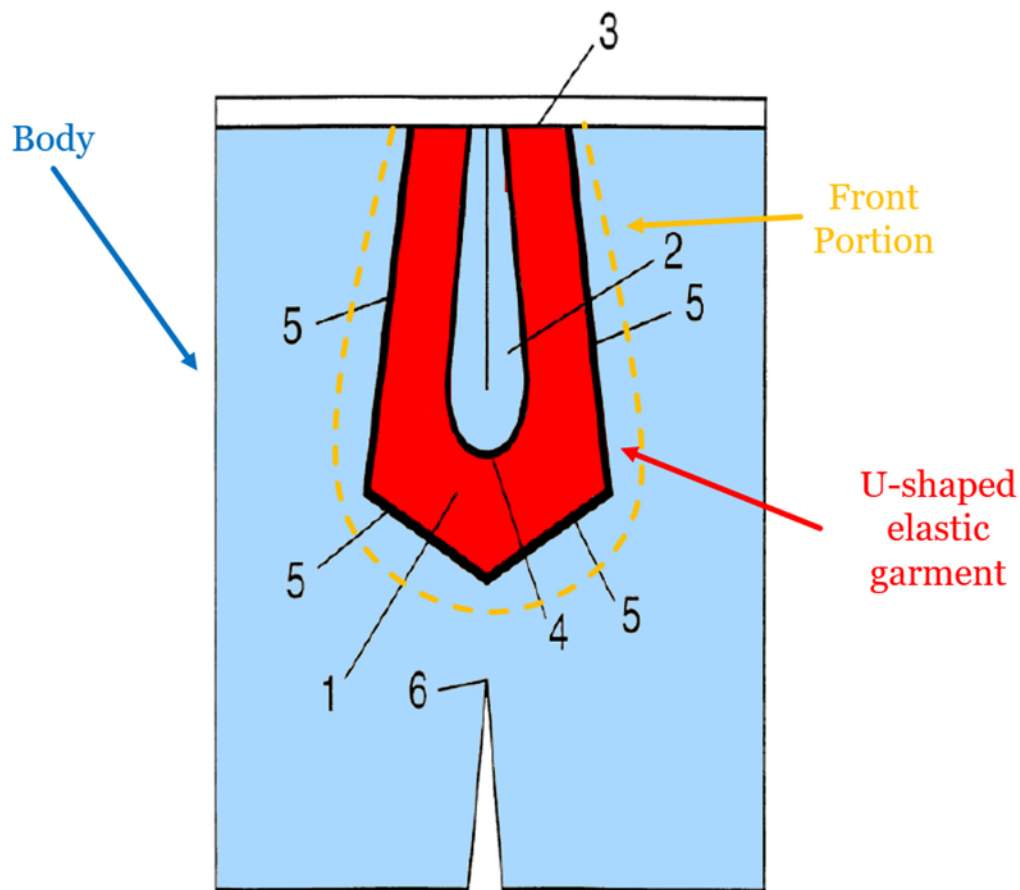
116. Carrillo in view of Brocks renders obvious 1[b]. Carrillo discloses that the underwear has an elastic “waistband (3) of the brief,” and shows this waistband being attached by a waistband seam at an upper edge of the body of the underwear:



(Carrillo, Fig. (annotated), Abstract, 2-3.) As the elastic waistband is shown and described as a separate piece of the underwear from the main body, the waistband and body are sewn together at a seam, as illustrated above, to join the body of the underwear to the waistband.

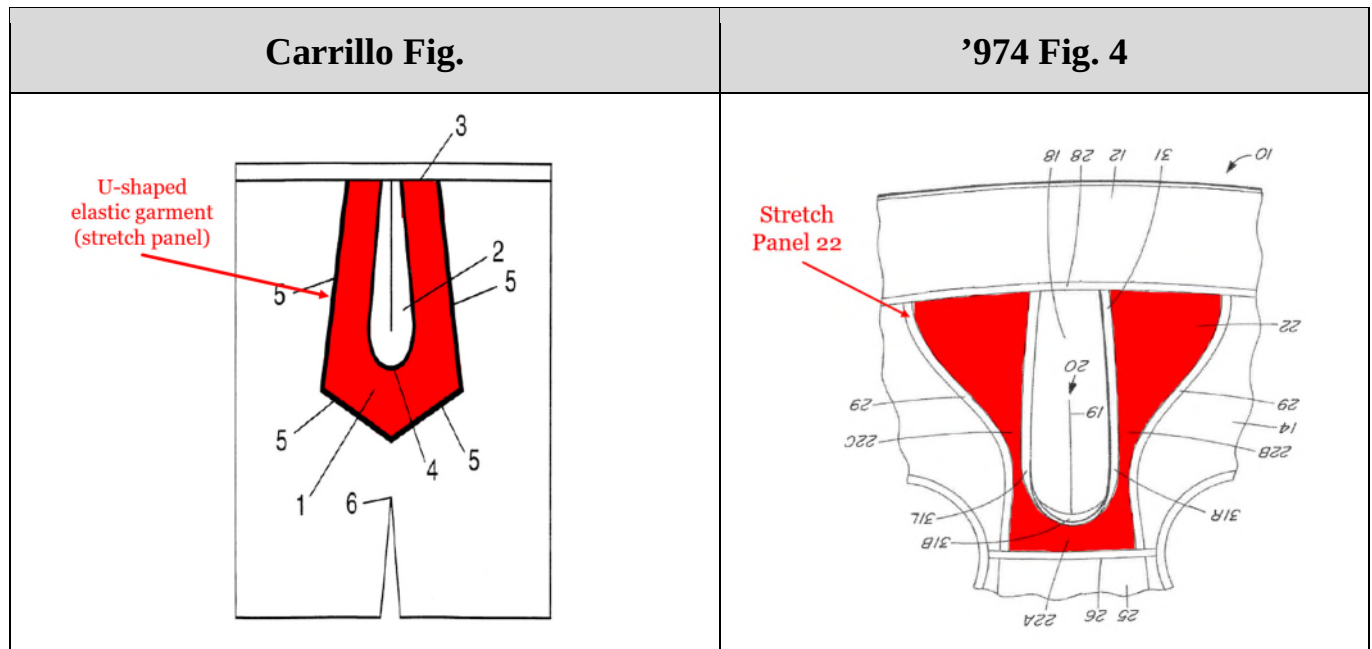
1[c]: a stretch panel attached to the body inside the front portion,

117. Carrillo in view of Brocks renders obvious 1[c]. Carrillo discloses a stretch panel attached to the body inside the front portion, as it has “a U-shaped elastic garment (1) sewn to the inner front part of the standard briefs[.]” (Carrillo, 2; *see also* Abstract, 3.)



(*Id.*, Fig. (annotated), 2-3.) Carrillo’s U-shaped elastic garment includes an “opening (2)” in the middle of its U-shape, and “when sewn to the inner front part of the underwear,” gently pulls a wearer’s “intimate parts” forward through the opening to achieve “sufficient separation” and “reduce continuous direct contact and friction.” (*Id.*, 2-3.) A portion of the front part of the underwear can be seen through opening 2, where the user’s genitals would be contained.

118. Notably, the U-shaped elastic stretch panel in Carrillo is strikingly similar to the stretch panel in the ’974:



(Compare Carrillo, Fig. (annotated) with '974, Fig. 4 (rotated and annotated).) See also *infra* Claim 1[d].

1[d]: the stretch panel comprising a sheet of elastically resilient four-way stretch material...

119. Carrillo in view of Brocks renders obvious Claim 1[d].

120. Carrillo's "stretch panel" comprises a "sheet" of material, as the U-shaped elastic garment is shown as a single sheet of material sewn to the front of the underwear. (Carrillo, 2, Fig.) This U-shaped elastic garment is made elastically resilient material, as the elastic garment is: expressly described as being made of elastic material, which is elastically resilient; "U-shaped" and thus can be stretched in both left to right and up and down directions; sewn to the front part of the underwear and attached to the elastic of the waistband; and provided to "gently pull [the intimate parts] forward." (*Id.*, 2, Fig.; see also Abstract, 3.)

121. Further, Carrillo discloses that its elastic garment material is a “four way stretch” material, as a POSITA would have understood this from Carrillo both based on the disclosure and Figure in Carrillo and their general knowledge at the time of the alleged invention. As I noted, Carrillo discloses that the U-shaped elastic garment is “sewn to” the body of the underwear and is attached to the “elastic (3) of the waistband.” (Carrillo, (2-3.) A POSITA would have recognized that because the elastic garment is “sewn to” the front part of the underwear, it would stretch in all directions (up and down, left and right) in order to stretch and accommodate wearers of different sizes and body shapes.

122. A POSITA would have also understood from Carrillo that the U-shaped elastic garment would stretch in all directions in order to accommodate movement of the wearer (including in the area of the opening) while the underwear is being put and while it is being worn. For example, because the elastic garment is sewn to underwear that a user will stretch open at the waistband to put on, a POSITA would have recognized that it must stretch at least in the same direction as the waistband; otherwise, it would prevent the waistband from stretching when a wearer pulled on the waistband to put on the underwear. If the elastic did not stretch in this direction, it could potentially prevent a wearer from opening the waistband enough to put on the underwear, and could cause uncomfortable and detrimental bunching of the elastic waistband where it is attached to the elastic garment. The stitching might also

break if the elastic did not stretch. Similarly, a POSITA would have understood the elastic material would have some stretch in a direction perpendicular to the waistband, such that it would not cause the underwear to rip or bunch as the front material stretches or is put under tension as the wearer moves.

123. Moreover, a POSITA would have understood that for the “elastic garment” of Carrillo to achieve its stated purpose of providing sufficient separation of the testicles from the groin, reduce direct contact and friction, and help with perspiration in that area (Carrillo, 1-3), it would have four-way stretch properties. If it were just two-way stretch material, it could pinch the “intimate parts” in the opening rather than gently pull them forward as is the elastic garment’s intended purpose. (Carrillo, 2.)

124. Additionally, it would have been obvious to a POSITA for the “U-shaped elastic garment” in Carrillo to be made of four-way elastic material (that is, to be able to stretch both up and down and left and right). A POSITA would have known, including from Carrillo and the knowledge of a POSITA, that elastic material can either be “four-way” stretch (stretch up and down and left and right) or “two-way” stretch material (stretch left and right but not up and down, or vice versa). In other words, a POSITA would have understood that there are two possibilities when it comes to a stretchable material like that Carrillo: it can stretch up and down but not side to side (or vice versa) or it can stretch in all directions. A POSITA would

have therefore found it obvious to try four-way stretch material, as it would have been only one of two known options.

125. A POSITA reading Carrillo would have been motivated to use four-way stretch material in order to provide greater flexibility in all directions, such that the elastic garment could more easily move and adjust as the underwear to which it is attached shifts positions while a wearer moves. Further, using four-way stretch material would have provided the benefit of not causing bunching or tearing of the front part of the standard briefs to which the U-shaped garment is attached, as the four-way stretch material could accommodate movements and shifts of fabric in all directions.

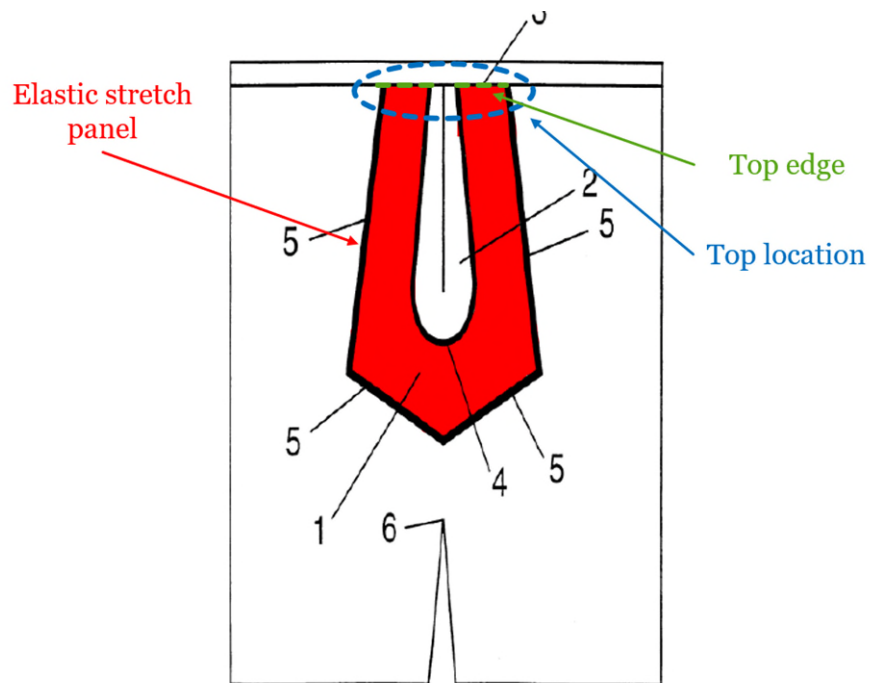
126. A POSITA would have had a reasonable expectation of success in using four-way stretch material for the elastic garment, as four-way stretch materials, like Nylon-Spandex blends and polyester-Spandex blends, were well-known and commonly used in men's underwear at the time for their moisture-wicking abilities, breathability, and comfort. Such materials are especially common in men's performance underwear. For example, as I discuss above and below, Kitsch discloses elastic materials sewn to the inside of underwear, similar to Carrillo, and expressly states the elastic can be a Nylon-Spandex blend. (Kitsch, [0030].) Because the U-shaped elastic garment is intended to address the problem of "very little ventilation and a lot of humidity" by "eliminat[ing] direct contact between the testicles and the

groin, avoiding continuous friction or poor positioning of the testicles between the legs, substantially improving the perspiration of the area” (Carrillo, 1), a POSITA would have had a reasonable expectation of success that using four-way stretch material would accomplish this, including by elastically pulling the genitals forward and away from the inner legs and groin region as the wearer moves.

1[e]: ...[i] having a top edge attached to the body at a top location, [ii] a bottom edge attached to the body at a bottom location, [iii] side edges attached to the body at side seams extending substantially continuously along either side of the front portion and [iv] an opening for receiving a wearer’s genitals;

127. Carrillo in view of Brocks renders obvious 1[e].

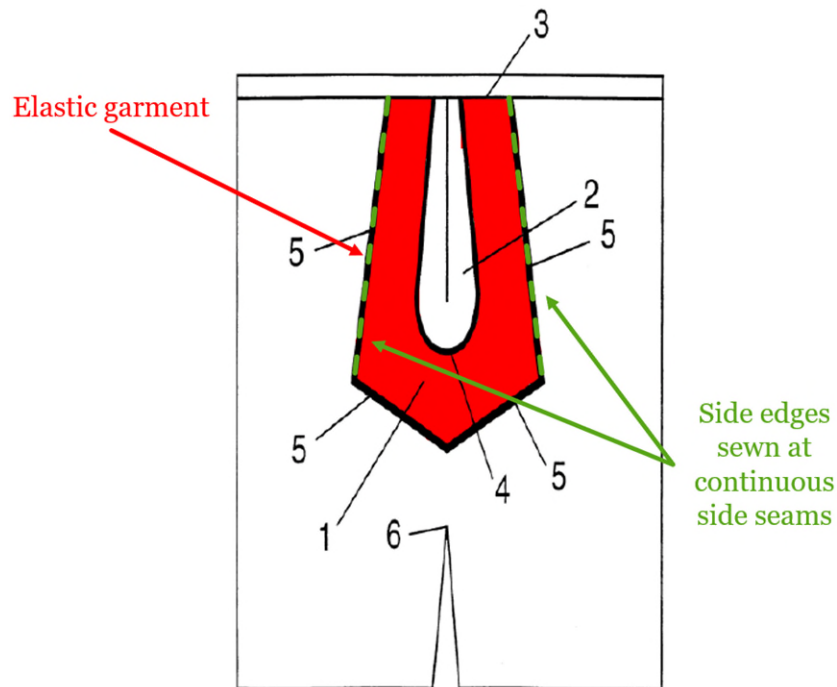
128. **First**, Carrillo discloses its stretch panel has a top edge attached to the body at a top location (e.g., at or near the waistband), as it is “sewn to the inner front” of the underwear with its top edge connected at the waistband:



129. **Second**, Carrillo discloses its stretch panel has a bottom edge attached to the body at a bottom location, as the elastic garment is “sewn to the inner front” of the underwear, with a bottom edge attached at a “distance above the seam of the inseam (6) of the brief” (*e.g.*, a “bottom location”):

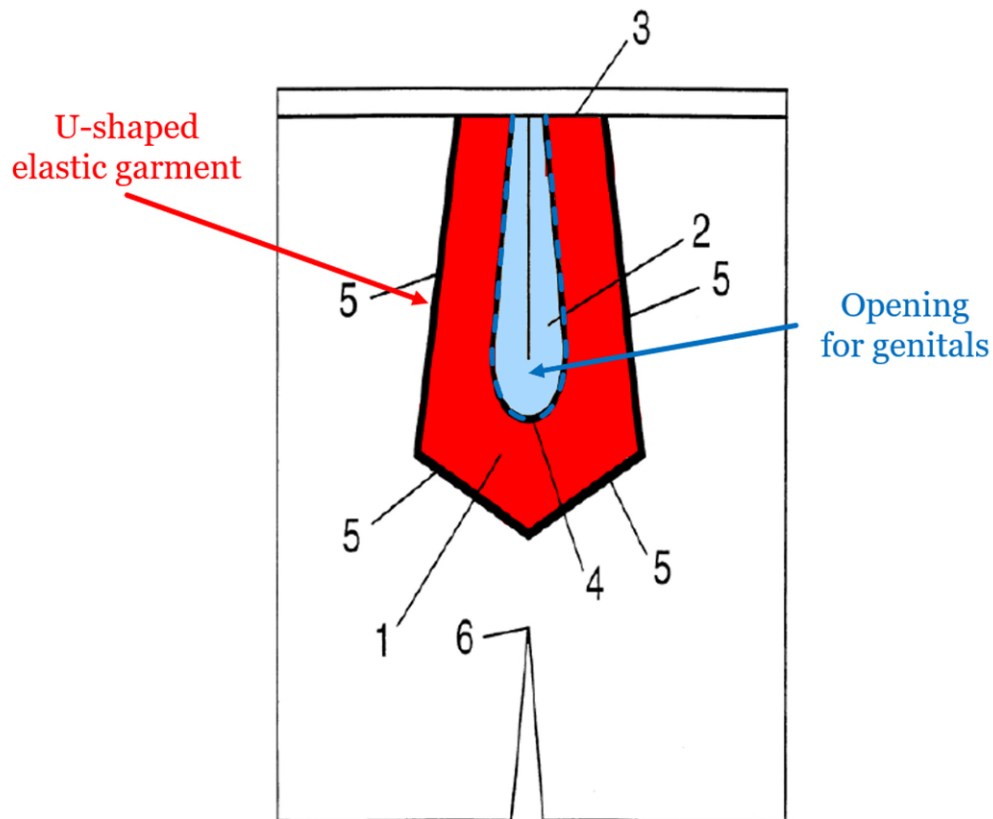


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(*Id.*, Fig. (annotated); Wagner Decl.) As noted, the “[U-shaped elastic] garment is sewn (5) to the inner front part of the brief,” and thus the garment is attached to the front portion of the body along the sewing seams (5) on either side of the front portion as shown above. (Carrillo, 3; *see also* Abstract, 2.)

131. **Fourth**, Carrillo discloses its elastic garment stretch panel has “an opening for receiving a wearer’s genitals.” Carrillo discloses the U-shaped elastic garment “has an opening (2) in the shape of a vertical teardrop,” through which the wearer “introduce[es] the intimate parts”:

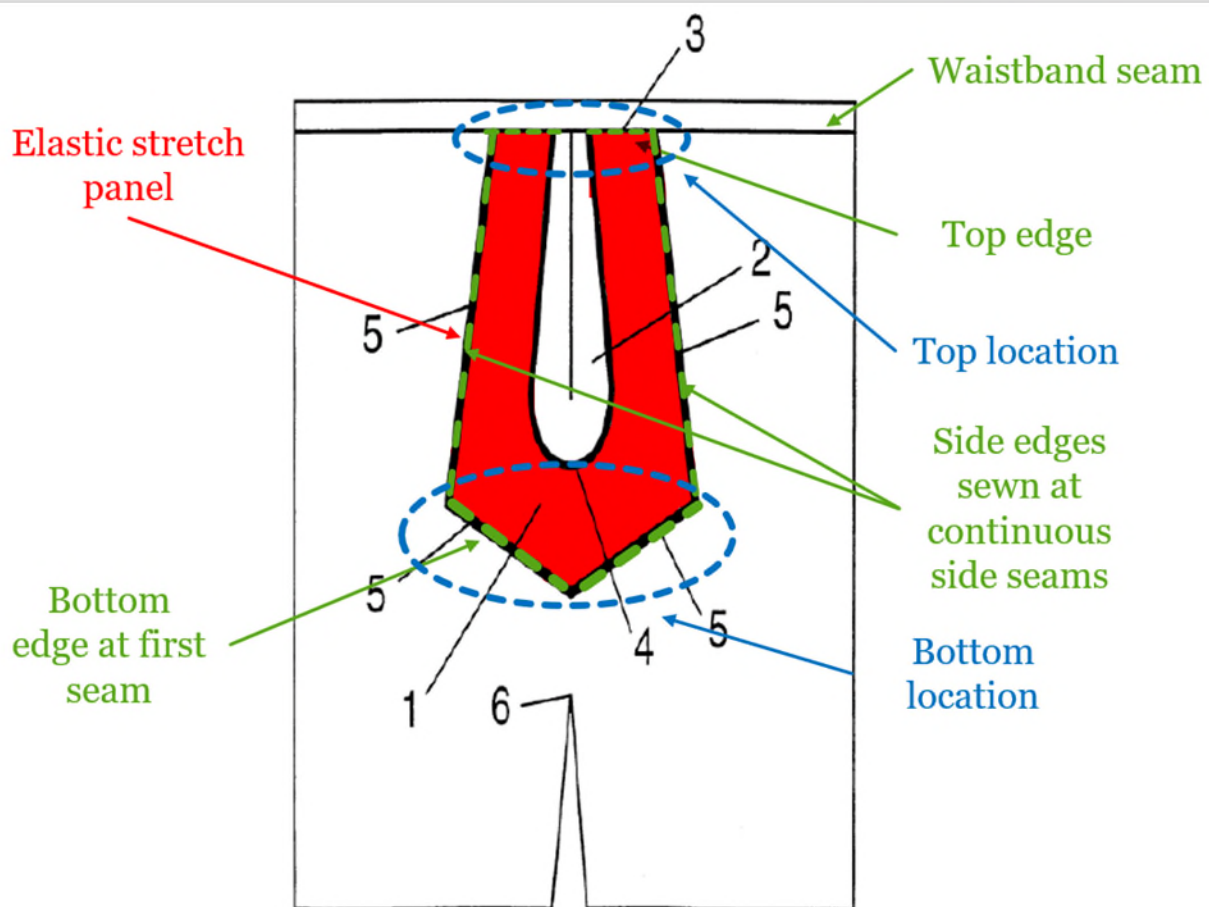


(*Id.*, Fig. (annotated), 2-3.) The opening (2) receives the wearer’s genitals such that the U-shaped elastic garment gently pulls a wearer’s “intimate parts” forward through the opening to achieve “sufficient separation” and “reduce continues direct contact and friction.” (*Id.*, 2-3.) Carrillo’s opening is strikingly similar to the opening of the ’974’s stretch panel which discloses the opening may be “tear-drop shaped.” (’974, 3:7-12.)

1[f]: the stretch panel resiliently elastic both in a direction between the top edge and the bottom edge and in a direction between the side edges;

132. Carrillo discloses and renders obvious Claim 1[f]. As explained above, Carrillo discloses and renders obvious using a four way stretch material for the U-

shaped elastic garment. *See supra* ¶¶119-126. Carrillo further discloses that this U-shaped elastic garment is sewn to the front of the underwear, with a top edge attached to the waistband, a bottom edge attached at a seam above the in-seam, and side edges. *See supra* ¶¶127-131. As such, when the U-shaped elastic garment stretches, it can do so from side to side or from top to bottom between the top edge and bottom edge. Thus, a POSITA would have understood the U-shaped elastic garment is resiliently elastic in a direction between the top edge attached at the top waistband location and the bottom edge where it is sewn “above the inseam (6)” and in a direction between the two side edges on either side of the opening:



(Carrillo, Fig. (annotated), 1-3.) See also *supra* ¶¶117-131.

1[g]: the stretch panel having a length when unstretched smaller than a length measured along the front portion between the top and bottom locations and a width when unstretched smaller than a width measured along the front portion between the side seams such that front portion is gathered by the stretch panel and defines a three-dimensional pouch between the stretch panel and the front portion for receiving the wearer's genitals and holding the wearer's genitals while the garment is being worn;

133. Carrillo in view of Brocks renders obvious Claim 1[g]. Carrillo discloses that its elastic garment includes an opening into a pouch area, and allows a user to insert their genitals into the opening and have them be “pulled forward” into the pouch area so they are supported and separated from the groin area. See *supra* ¶¶115, 117-118, 127-131. (See also Carrillo, Abstract, 2-3.) Carrillo further discloses its elastic garment stretch panel is made from **elastic** and, as such, is stretchable. See *supra* ¶¶117-118, 132. (See also Carrillo, Abstract, 2-3.) That is, when the elasticized material in Carrillo is stretched lengthwise, its length would increase, and when stretched widthwise, its width would increase.

134. Brocks, in the same field as Carrillo, discloses a male undergarment brief that also includes a “defined genital pouch.” (Brocks, Abstract.) Brocks’s underwear includes a “trunk or rear portion 4,” a “waist band 6,” “leg bands 7 and 11,” and a “front panel insert 12” that defines a genital pouch:

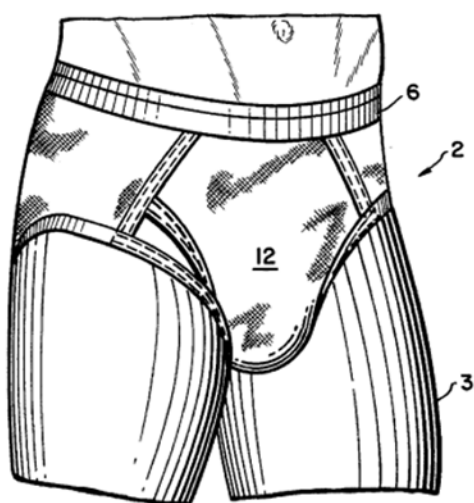


FIG. 1

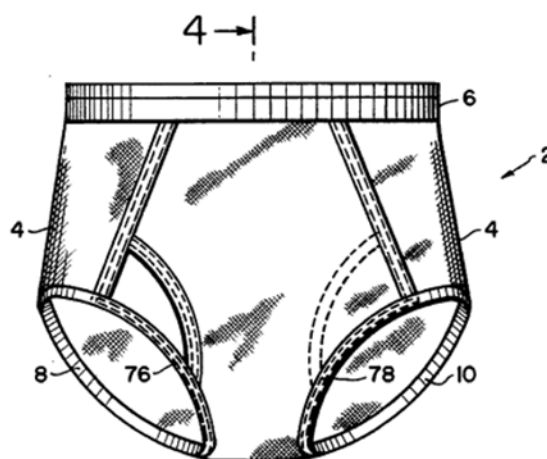


FIG. 2

(Brocks, Figs. 1-2, 2:49-64, 4:2-14; *see also* Figs. 4-5.) Brock's two-layer "front panel insert 12" is formed of an inner panel and an outer panel. (*Id.*, 2:60-3:27.)

135. Brocks teaches that its genital pouch is formed by attaching elastic strips to the front fabric panels while in a stretched state, such that when the strips contract a "shirring takes place on the panels forming a genital pouch." (*Id.*, 2:5-21, 3:23-4:14.) In particular, Brocks discloses that the elastic material used to form the pouch can be attached in a stretch state (that is, the elastic in its unstretched state is smaller than when it is being attached) so as to "gather" the fabric of the front portion and cause it to bunch and form the pouch. (*Id.*, 2:5-21 ("In assembling, the elastic strips are each stretched to the length of each of the concave leg opening arches of the front panel, causing the stitched material **to be gathered together** and thereby define a genital pouch in the form of shirring when the stretching force is released."))

(emphasis added), 3:28-4:14 (“The elastic 78 in its ***non-stretched condition is approximately two thirds*** of the length of the leg opening arches running between point 56 of the underlying panel 16 and point 34 of the overlying panel 14, along the right leg opening, and similarly, the ***elastic 78 is stitched in its stretched condition*** along the arch 28 running between point 26 of under panel 16 and point 30 of the overlying panel 14... The elastic strips create a ***gathering*** and shirring forming a secure enclosure pouch for the male genitals as generally indicated in FIGS. 1 and 3.”) (emphasis added).)

136. As shown by the arrows in Figure 8 of Brocks, the elastic strips are stretched in a lengthwise and widthwise direction, as they are pulled upward and outward from the bottom corners 30 and 34 of the “outer panel 14” of the front panel 12 towards the outer edges 26 and 56, with the unstretched length and width of the strips being smaller than the length and width measured along the seams after attachment in a stretched state (as indicated by the dotted lines in Figure 9, which shows the strips in a stretched state when being attached):

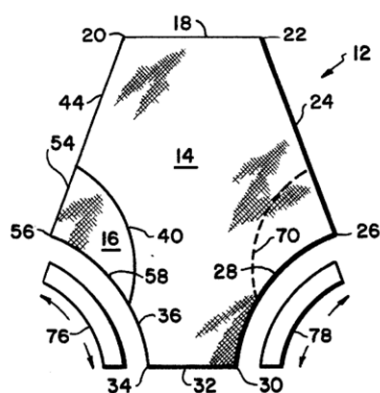


FIG. 8

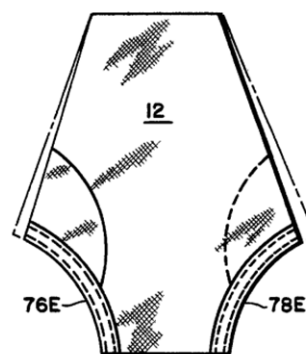
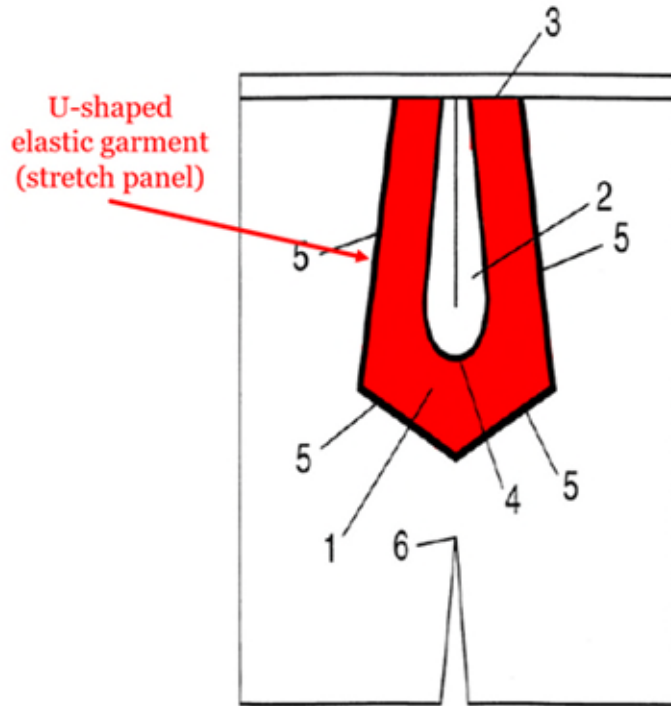


FIG. 9

(*Id.*, Figs. 8-9, 3:27-4:14.) The '974's stretch panel is stretched from its unstretched state (shown by the solid line) to a stretched state (shown by the dotted line) during assembly. ('974, 5:56-6:9.)

137. It would have been obvious to a POSITA to modify Carrillo to first stretch Carrillo's U-shaped elastic garment and to then sew it to the front part of the underwear in a stretched condition, as taught by Brocks, in order to create a "**gathering** and shirring **forming a secure** enclosure **pouch** for the male genitals." (Brocks, 3:27-4:14 (emphasis added).) Carrillo's U-shaped elastic garment is elastic, like the elastic strips in Brocks, and could be similarly stretched before being sewn to the front part of the underwear along lines (5) as shown in the Figure:



(Carrillo, Fig. (annotated), 2-3.) Further, like the elastic strips in Brocks, the U-shaped elastic garment in Carrillo is joined with a front part of the underwear along sewn seams to create a pouch to support and enclose the wearer's genitals, and attaching it in a stretched state would help further define the pouch with sufficient volume for the wearer's genitals. (Carrillo, Abstract, 2-3.)

138. A POSITA would have recognized that, as taught by Brocks, when the U-shaped elastic garment of Carrillo is stitched to the front part in a stretched state, it would contract after being sewn and would assist in creating a “gathering” of the front panel fabric to which it is attached, helping to form or define the supportive genital pouch. Such a modification would not require any additional materials. Carrillo already discloses its U-shaped elastic garment stretch panel is an elastic

material, and attaching this same material in a stretched state would allow the U-shaped elastic garment to continue to perform its same functions of pulling the genitals forward into the front part pouch, reducing contact and friction with the groin area, and assisting with perspiration, while also further adding to the gathering of fabric to create the supportive pouch.

139. A POSITA would have been motivated to modify Carrillo, as taught by Brocks, to sew the U-shaped elastic garment to the front part of the underwear when in a stretched state, stretching it upwards and outwards (*e.g.*, in a lengthwise and widthwise direction), to, again, aid in the formation of the pouch. Carrillo already teaches that the U-shaped elastic garment being attached to the front portion allows a user to insert their genitals into the opening and have them be “pulled forward” into the front portion, so they are separated from the groin area. (Carrillo, Abstract, 2-3.) Using the teachings of Brocks would simply further this cooperation of the elastic garment and front part of the underwear providing a pouch space into which the genitals can be pulled forward, as the elastic garment being attached in a stretched state and then being allowed to contract would add to the formation and supportive nature of the pouch.

140. A POSITA would have also understood that attaching the elastic garment in a stretched state, rather than an unstretched state, would merely be the simple substitution of one known method for another. A POSITA would have known

that elastic can be sewn to other fabrics in either a stretched state or an unstretched state, and would have been motivated to try the method of attaching in a stretched state (*e.g.*, as taught by Brocks) in order to obtain the benefits of the elastic material assisting in “gathering” the material to which it is attached to form the pouch.

141. Thus, in sum and as explained, Carrillo as modified by Brocks discloses that the front portion is gathered from side-to-side and top-to-bottom by the stretch panel and defines a three-dimensional pouch between the stretch panel and front portion for receiving and holding the wearer’s genitals. That is, by stretching the U-shaped elastic garment upwardly and outwardly before sewing along lines (5) to the front part of the underwear, the U-shaped elastic garment would gather the front part of the underwear from top to bottom and side to side to assist in creating the volume of the pouch. This pouch, formed between the U-shaped elastic garment and front portion of the underwear, would continue to receive the wearer’s genitals, supporting them and separating them from the groin area, thus reducing contact and friction. (Carrillo, Abstract, 2-3.)

2. Dependent Claim 2

A male garment according to claim 1 wherein the stretch panel has asymmetrical stretch characteristics such that the stretch panel stretches more easily in a direction parallel to the waistband and less easily in a direction at right angles to the waistband.

142. Carrillo in view of Brocks renders obvious Claim 2. As I mentioned above in the grounds based on Kitsch, Claim 2 recites a well-known concept at the

time of the '974 Patent – that asymmetric stretch materials may be used in men's underwear such that the materials stretch more in the direction the waistband may be pulled to open up the garment so a user can put them on, and less in directions perpendicular to the waistband. Asymmetric stretch simply means that a material can stretch more in one direction in another. This is as compared materials with symmetric stretch characteristics, which can stretch the same amount in all directions (*e.g.*, that can stretch the same amount left to right as they can top to bottom).

143. Indeed, Brocks discloses that materials used in men's underwear have such asymmetrical stretch characteristics, such that they stretch more easily laterally (*i.e.*, in a direction parallel to the waistband) and stretch less easily longitudinally or along the vertical axis (*i.e.*, in a direction at right angles to the waistband). (Brocks, 1:23-32 (noting that “[t]he usual material employed [in men's briefs] is a cotton knitted material ***having stretch along the lateral axis and having very little stretch along the longitudinal or the vertical axis.***”) (emphasis added), 4:2-13.)

144. It would have been obvious to apply this teaching of using material with asymmetrical stretch to the stretch panel of Carrillo, which is sewn to the front portion of men's underwear including at the waistband. For example, when a user pulls on and stretches the waistband to put on Carrillo's underwear, the stretch panel would need to stretch in that direction as least as much as the waistband and body of the underwear, or else the underwear would risk tearing.

145. For example, if the stretch panel could only stretch a very small amount parallel to the waistband as the waistband is stretched open, it could prevent the waistband from fully stretching open. This could limit the ability of a wearer to comfortably put on the underwear. Even if the waistband could open enough in a lateral direction for a wearer to put on the underwear, bunching of the waistband in the area of the stretch panel could occur if the stretch panel could only stretch a small percentage of the waistband's stretch in that direction, which could lead to discomfort or rubbing in that area.

146. Similarly, as taught by Brocks, the material for the stretch panel would not need to stretch as much in a direction perpendicular to the waistband, as the fabric of the underwear itself does not stretch as much in that direction and there is less of a risk of, for example, tearing. That is, when underwear is put on, the waistband is stretched open in a direction parallel to the waistband. The underwear is not also stretched from top to bottom perpendicular to the waistband when being put on, and so not as much stretch is required in this direction. Any stretch in the direction perpendicular to the waistband would need only account for normal stretch in that direction as the underwear is worn and moves with the wearer's body.

147. A POSITA would have also been motivated to modify Carrillo, as taught by Brocks and generally known in the art, to construct Carrillo's U-shaped elastic garment such that it has asymmetrical stretch characteristics and would

stretch more easily in a direction parallel to the waistband, such as when the waistband is opened for the underwear to be put on, than in a direction at right angles to the waistband. Doing so would help accommodate the forces placed on the underwear by the wearer as it stretched open to be put on and during normal use, and would have ensured the stretch panel would not prevent the body material from stretching to accommodate the wearer's body.

148. Additionally, it would have been obvious to a POSITA for the U-shaped elastic garment in Carrillo to have asymmetric stretch such it stretches more in, for example, a direction parallel to the waistband as I explain above. A POSITA would have known that elastic material, such as disclosed in Carrillo, must have either symmetrical stretch (*e.g.*, stretches the same in all directions) or asymmetrical stretch (*e.g.*, stretches more in one direction than another). A POSITA would have therefore found it obvious to try asymmetrical stretch material, as it would have been only one of two known options and it would have accounted for needing more stretch in the direction of the waistband when the underwear is opened up to be put on by a wearer. A POSITA would have been well aware of different, common types of elastic materials that have symmetric and asymmetric stretch characteristics, and it would have been routine for a POSITA to try different types of stretch material for different components when constructing underwear. This is a common practice when constructing underwear, or other garments—a POSITA would have tried

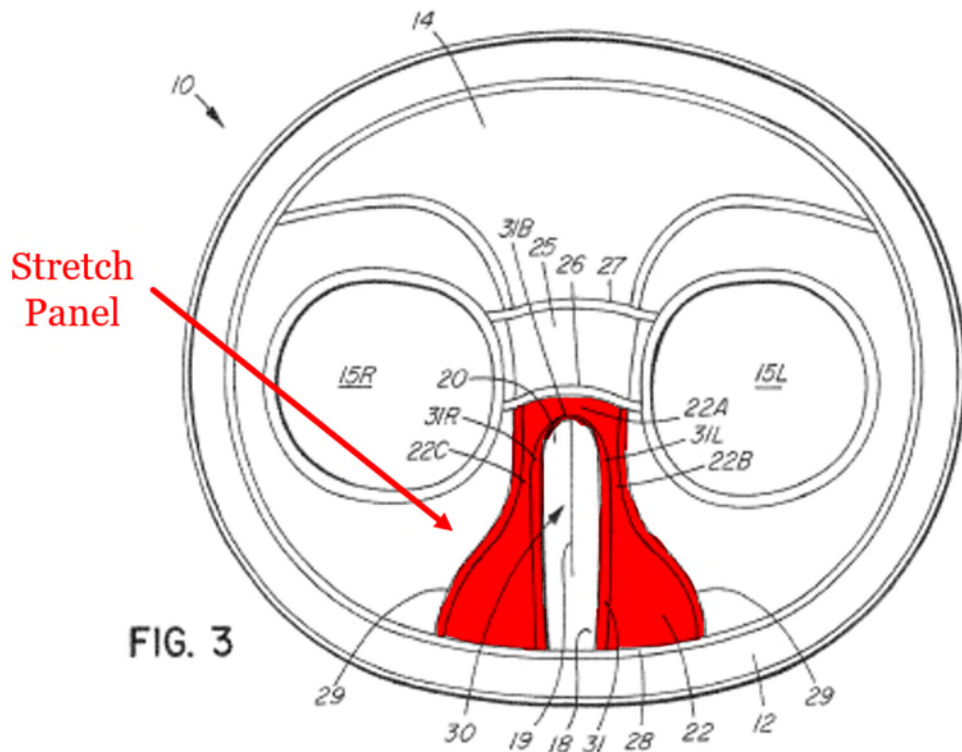
different types of fabrics with different properties, including stretch properties, to create a final garment with the desired fit, look, and functionality. Further, applying this teaching would have been a simple, well-known way to implement or construct the U-shaped elastic garment in Carrillo, which would continue to function as before, only now the wearer could stretch the underwear more in the lateral direction.

149. Moreover, Carrillo contemplates the U-shaped elastic garment being attached to underwear “models already existing on the market.” (Carrillo, 2.) Many of these models, especially those that attempt to address issues of friction, excessive moisture, and testicle positioning like Carrillo, are men’s performance underwear models that already use material with asymmetrical stretch characteristics for the aforementioned reasons. A POSITA would have been motivated to construct Carrillo’s U-shaped elastic garment from a material with similar characteristics, lest the benefits of using such a material for the rest of the underwear be diminished.

3. Dependent Claim 3

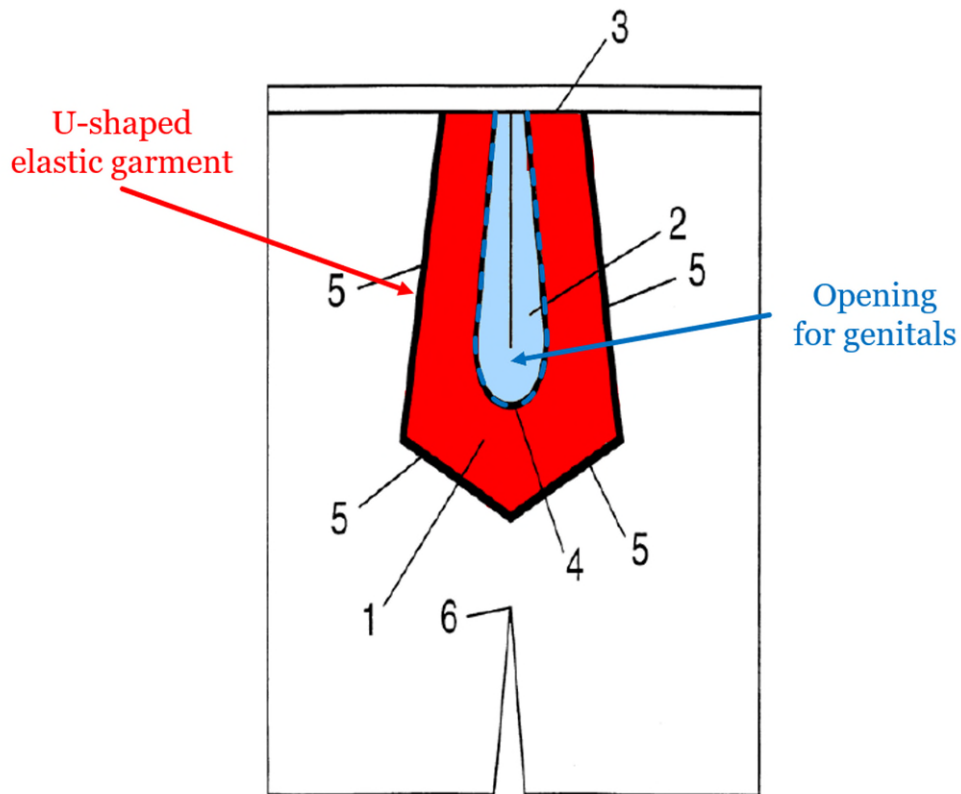
A male garment according to claim 1 wherein the stretch panel is rectangular and the opening is U-shaped.

150. Carrillo in view of Brocks renders obvious Claim 3. The ’974 indicates that its stretch panel 22 can be “generally rectangular,” with a U-shaped opening, as can be seen, for example, in Figures 3 and 9. (’974, 4:47-48, Figures 3, 9.) What the ’974 considers generally rectangular can be seen below:



('974, Fig. 3 (annotated).)

151. Carrillo discloses its “U-shaped elastic garment” has a similar rectangular shape, with generally straight or parallel sides, and with a similar “opening (2) in the shape of a vertical teardrop”:



(Carrillo, Fig. (annotated), 2; *see also* Abstract, 3.) As can be seen, Carrillo's elastic garment has a shape and opening that is strikingly similar to that of the '974 Patent (*e.g.*, in Figures 3 and 9), with a rectangular shape bounded by a top edge, two substantially parallel side edges, and a bottom edge, and with a U-shaped opening in the middle.

4. Dependent Claim 4

A male garment according to claim 3 wherein the stretch panel comprises a fabric having a stretch of at least 30%.

152. Carrillo in view of Brocks renders obvious Claim 4. As I explained above, it would have been obvious to modify Carrillo to attach the U-shaped elastic garment to the front of the underwear while it is in a stretched condition, as taught

by Brocks, in order to, for example, gather the fabric to form the supporting and separating pouch. *See supra* ¶¶133-141.

153. Brocks further discloses that the elastic strips “in their unstretched condition are approximately **two-thirds** the length of each leg opening arch of the front panel. In assembling, the elastic strips are each stretched to the length of the concave leg opening arches of the front panel, causing the stitched material to be gathered together and thereby define a genital pouch[.]” (Brocks, 2:5-13 (emphasis added), Abstract, 3:24-4:14.) That is, the stretched length of the elastic strips in Brocks is 50% greater than the unstretched length (*i.e.*, $(100-66.\bar{6})/66.\bar{6} = 50\%$), indicating the elastic fabric can stretch by at least 30%. ('974, 5:28-45.)

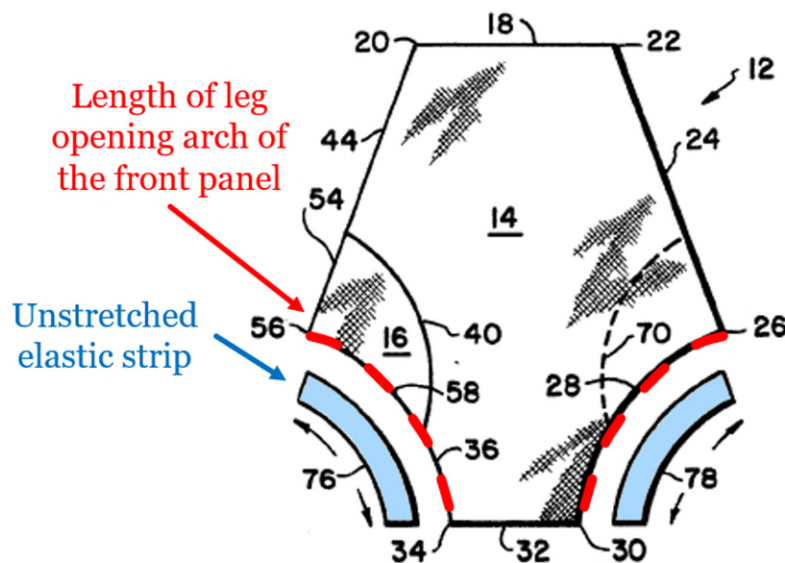


FIG. 8

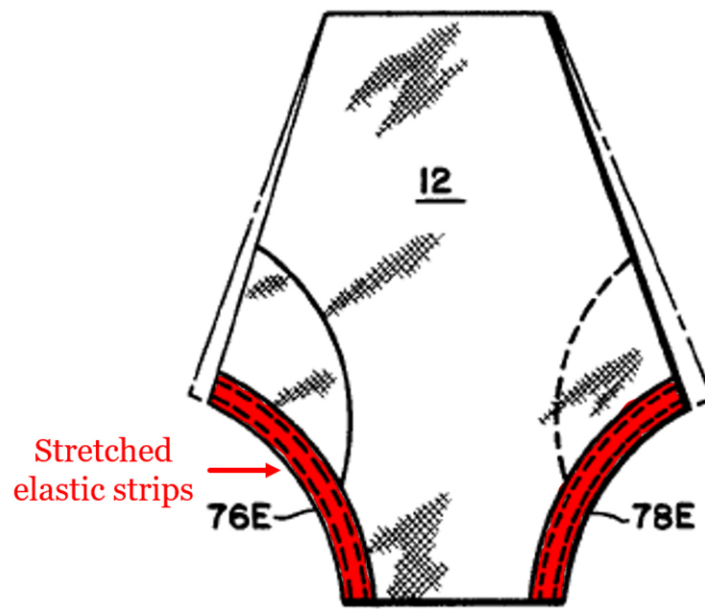


FIG. 9

(Brocks, Figs. 8-9 (annotated).)

154. As such, it would have been obvious to use a stretch panel that has at least 30% stretch, such as a stretch of 50% as taught by Brocks, for the same reasons as set forth above. *See supra* ¶¶133-141. In addition, in order to ensure that the U-shaped elastic garment in Carrillo has sufficient elasticity to gather the fabric, a POSITA would have been motivated to use elastic material with at least 30% stretch. (Brocks, 2:5-16, 3:23-4:14.) The stretch of the stretch panel is related to the volume of material it is able to gather. If the stretch panel could only stretch a little, such as 5%, then even if it were attached to the fabric of the front portion of the underwear in a stretched state, it would only be able to retract slightly and gather a little bit when released. Thus a POSITA would have understood that, if the U-shaped elastic

garment material did not have enough stretch, it would not be able to “gather” enough fabric when released from the stretched state to an unstretched state to create a pouch with sufficient volume. To get a pouch with sufficient volume to separate the genitals from the groin, a POSITA would have understood the stretch panel should have at least 30% stretch, as taught by Brocks.

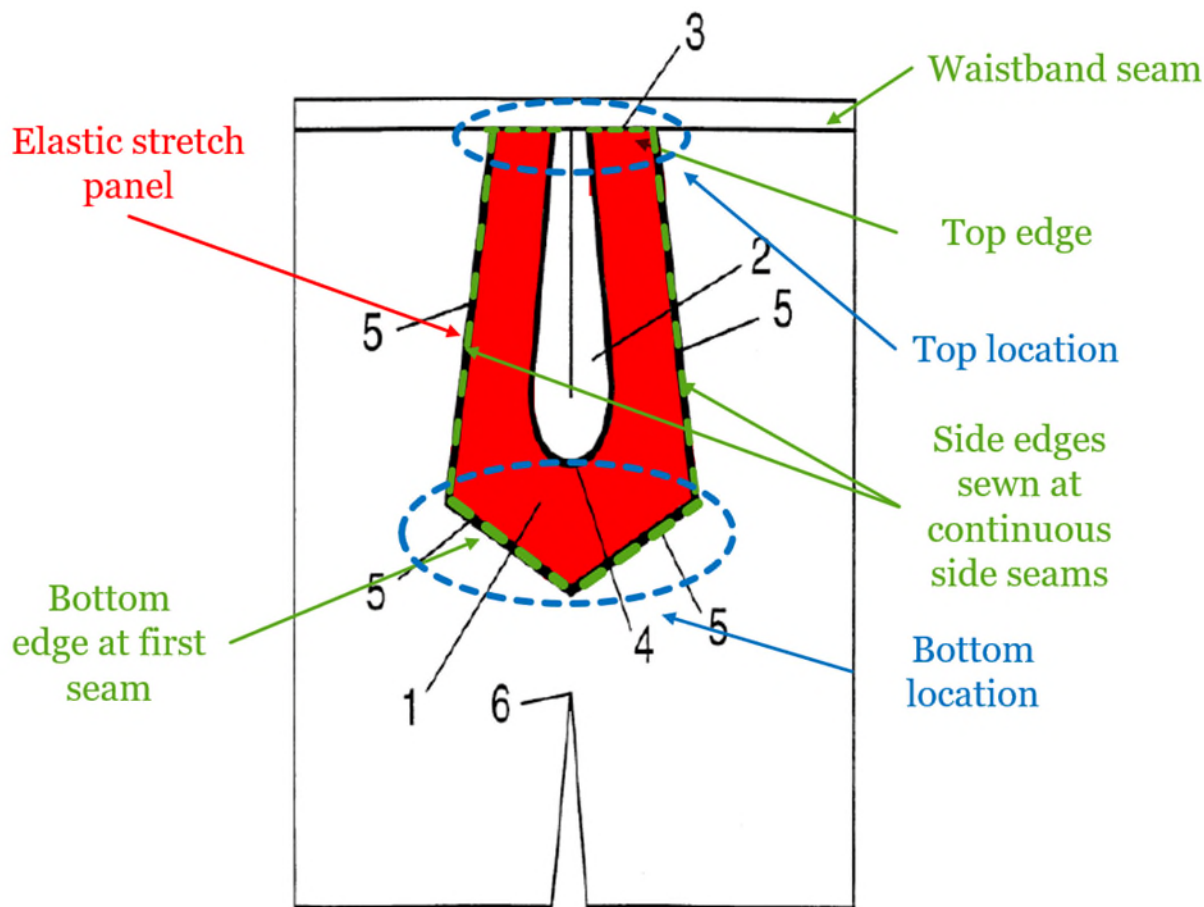
5. Dependent Claim 5

A male garment according to claim 1 wherein the top location is the waistband seam and the bottom location is the first seam, and a length measured along material of the front portion from the first seam to the waistband seam exceeds a length measured along the fabric of the stretch panel, when unstretched, by at least 30%.

155. Carrillo in view of Brocks renders obvious Claim 5.

156. **First**, Carrillo discloses that the top location is the waistband seam, as the U-shaped elastic garment depends “from the elastic (3) of the waistband” at the top of the body of the brief. (Carrillo, 2; *see also* Abstract, 3.) Carrillo also discloses that the bottom edge of the U-shaped elastic garment is attached at a bottom location at a first seam. (Carrillo, 3 (indicating that the elastic “garment is sewn (5) to the inner front part of the brief,” and thus having a seam formed at the bottom location where the bottom edge is sewn to the front part).) For example, Carrillo discloses that the elastic garment can be sewn to the front of the brief at a location that is a “certain distance above the inseam of the brief (6).” (*Id.*) When material is overlapping and sewn together like this rather than being sewn together end-to-end,

the resulting seam is sometimes called an applique seam or an overlap seam. This type of seam is common in the industry. For example, this seam is often used for quilted garments or when a decorative piece of fabric is sewn to the face of another.



(*Id.*, Fig. (annotated).) See also *supra* ¶¶127-131.

157. **Second**, a POSITA would have understood that the undergarment of Carrillo, as modified by Brocks, would have a length, as measured along material of the front portion from the first seam to the waistband seam, exceeds a length measured along the fabric of the stretch panel, when unstretched, by at least 30%. See *supra* ¶¶133-141, 152-154. Brocks explains that the elastic strips are stretched

before they are attached to the material of the front portion of the fabric. Therefore, the two positions on the front portion of the underwear where the elastic strips are attached must have a greater length measured between them than the length of the elastic strips in their upstretched state, as the unstretched elastic strips must be lengthened by stretching to reach the two attachment points. Because the unstretched length of each strip in Brocks is only 66% of the length of the front portion fabric to which the elastic is attached in the stretched condition, a length measured along the front portion fabric is at least 30% greater than the length of each unstretched elastic strip. (Brocks, 2:5-16, 3:24-4:14, Figs. 8-9.)

158. As discussed above, it would have been obvious modify Carrillo in view of Brocks for the U-shaped elastic garment to include elastic material stretched by at least 30% when attached to the front portion of the underwear, such that the U-shaped elastic garment gathers the front material into a pouch with sufficient volume, for the same reasons as set forth above. *See supra* ¶¶133-141, 152-154. Incorporating this teaching into Carrillo to form or define the pouch would result in a U-shaped elastic garment whose length unstretched is at least 30% less than the length of a measurement along the material of the front panel to which the U-shaped elastic garment is attached in a stretched state.

6. Dependent Claim 6

A male garment according to claim 1 wherein the garment is a pair of undershorts.

159. Carrillo in view of Brocks renders obvious 6. Carrillo is titled “Hygienic Garment for Men’s Underwear” and discloses “a hygienic elastic garment for men’s underwear.” (Carrillo, Abstract; *see also* 1-3.)

7. Dependent Claim 7

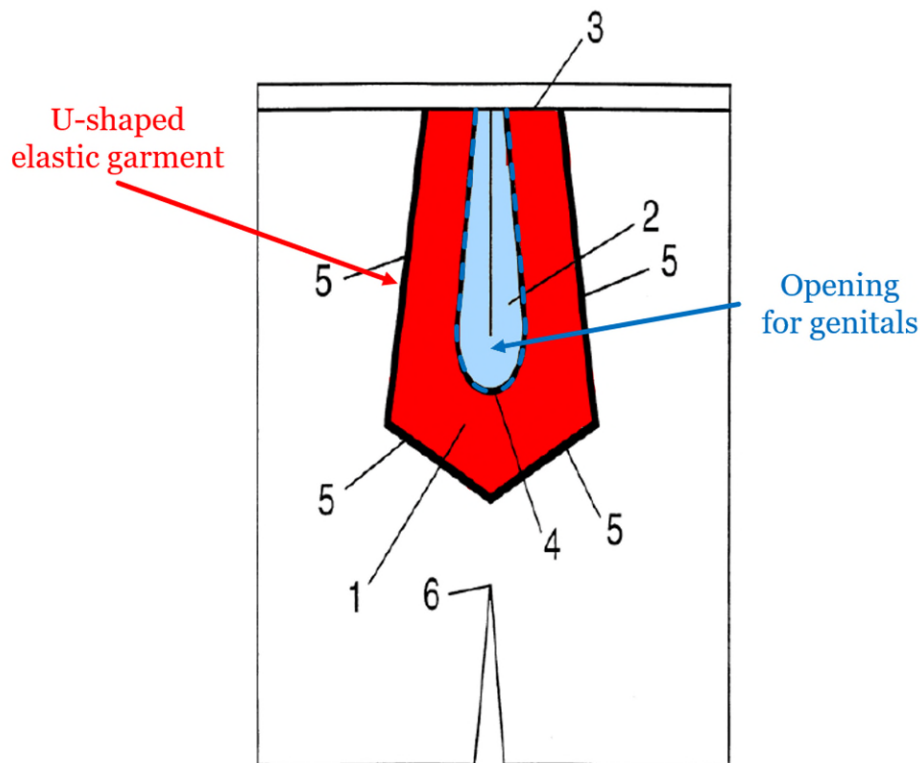
A male garment according to claim 1 wherein the stretch panel comprises a fabric different from a fabric of the body.

160. Carrillo in view of Brocks renders obvious Claim 7 Carrillo discloses a stretch panel in the form of a U-shaped ***elastic*** garment. (Carrillo, Abstract, 1-3.) Carrillo further discloses that the U-shaped elastic garment is “sewn to ***classic*** underpants.” (*Id.*, Abstract, 2 (“U-shaped elastic garment (1) sewn to the inner front part of standard briefs.”).) A POSITA would have understood that classic underpants, as referred to in Carrillo, would be of different material than the distinct “U-shaped elastic garment” that Carrillo disclose is sewn to such underpants. Classic underpants may be made of 100% cotton one-by-one knitted rib construction. In any event, classic underpants would not have been considered to be made of elastic material like that of the U-shaped garment described in Carrillo. Thus, the body of the underwear is comprised of the material for classic underpants or briefs, and the stretch panel is made from a different, elastic material.

8. Dependent Claim 8

A male garment according to claim 1 wherein the opening has a width in excess of 2 cm.

161. Carrillo in view of Brocks renders obvious Claim 8. Carrillo discloses and renders obvious that the opening of the U-shaped elastic garment has a width in excess of 2 cm. (Carrillo, Fig.) It is clear from Carrillo's figure, and its descriptions of the U-shaped elastic garment's functionality and purpose, that the opening is in excess of 2 cm. For example, as seen in the figure, and based on the description in Carrillo that the wearer introduces "the intimate parts through the opening (2)" so that the elastic garment "gently pull[s] them forward" to separate the testicles from the groin area, a POSITA would have understood that the opening has a width in excess of 2 cm:



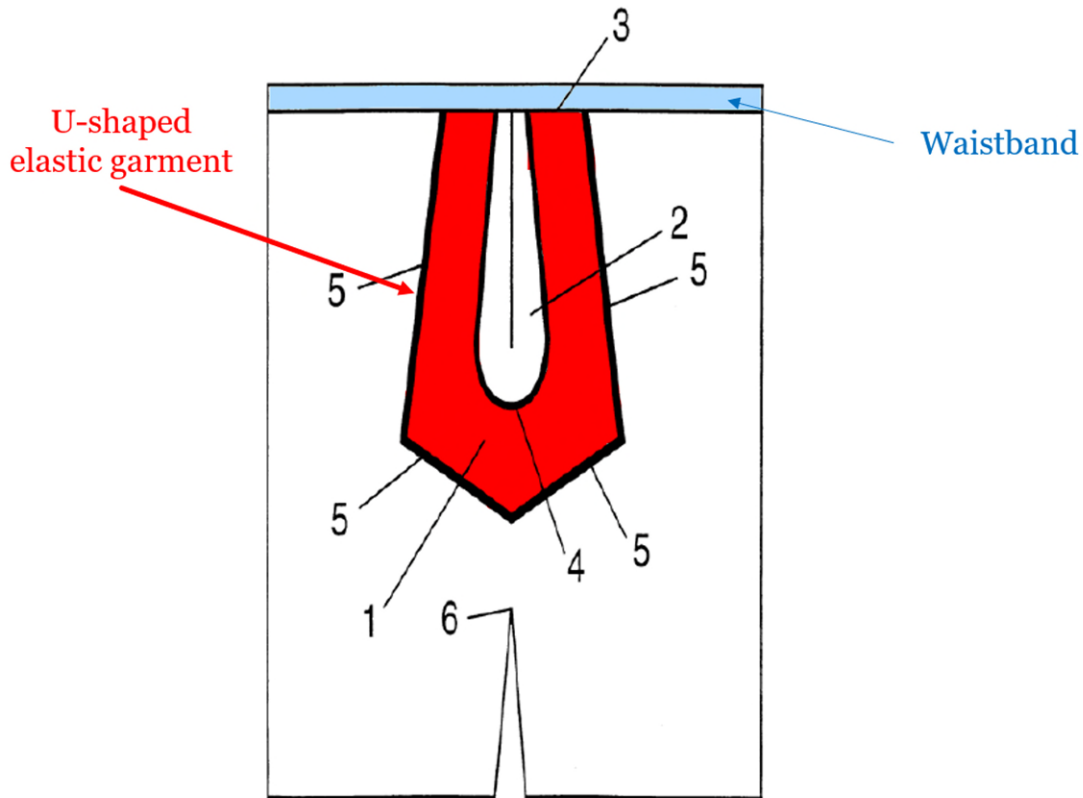
(Carrillo, Fig. (annotated), 2; *see also* Abstract, 3.) As shown, the Figure depicts the opening as being large enough to accommodate a phallus and testicles inserted forward into the area between the elastic garment and front of the underwear. (*Id.*, Figure, Abstract, 2-3.) If the opening (2) in the elastic garment (1) were not at least 2 cm, then a wearer would be unable to insert their genitals through the opening, and the genitals could instead be pushed back against the groin area of the wearer—exactly what Carrillo seeks to avoid. With an opening that is too small, for example on the order of 1 or 1.5 cm, a wearer would have their genitals uncomfortably pinched by the U-shaped elastic garment. As Carrillo discloses to U-shaped elastic garment is included to avoid contact between the genitals and groin area of the wearer, a POSITA would have understood the opening into the pouch would be greater than 2cm, or at the very least it would have been obvious to try different sized openings, including greater than 2cm, to accommodate genitals of different sizes. For these same reasons, it would have been obvious to a POSITA when implementing or constructing Carrillo's underwear to make the opening larger than 2 cm wide.

9. Dependent Claim 9

A male garment according to claim 1 wherein: the front portion depends downwardly from the waistband and the front portion is formed to provide the pouch at a mid-section thereof; the stretch panel is positioned to be disposed forward of the wearer's perineum when the garment is worn, whereby, in use, a scrotum of the wearer of the garment is supported underneath by the stretch panel to contain the wearer's penis and scrotum in the pouch.

162. Carrillo in view of Brocks renders obvious 9.

163. **First**, the front portion of Carrillo's garment is shown to depend downwardly from the waistband as shown in the figure below:



(Carrillo, Fig., (annotated.) This front portion of the body depends from, or extends downwardly from, the waistband of the underwear. And, as can be seen, the U-shaped elastic garment forms a pouch at a midsection of the front portion of the body, below the waistband, to isolate a wearer's genitals. (*Id.*, Fig., Abstract, 2-3.)

164. **Second**, Carrillo discloses that its U-shaped elastic garment, forming the stretch panel, is positioned to be disposed forward of the wearer's perineum when the underwear is worn, explaining that the U-shaped elastic garment is attached to

the ***inner front portion*** of the garment, such that “the normal tendency of the [U-shaped] elastic garment, when sewn to the inner front part of the underwear, is to gently ***pull forward*** [the genitals], achieving, with this garment, a sufficient separation to reduce the continuous direct contact and friction[.]” (Carrillo, 2-3 (emphasis added), Fig.) The inner front part of the underwear is the fabric that would be in front of the genitals, and therefore is positioned forward of the perineum area. Thus, in use, a scrotum of the wearer of the underwear is supported underneath by the U-shaped elastic garment to contain the wearer’s penis and scrotum in the pouch. See also *supra* ¶¶133-141.

10. Dependent Claim 11

A male garment according to claim 1, wherein the stretch panel is fastened to the front portion while in a pre-stretched condition while the front portion is less stretched, whereby the stretch panel is biased to hold the opening open while the garment is held in position to be put on.

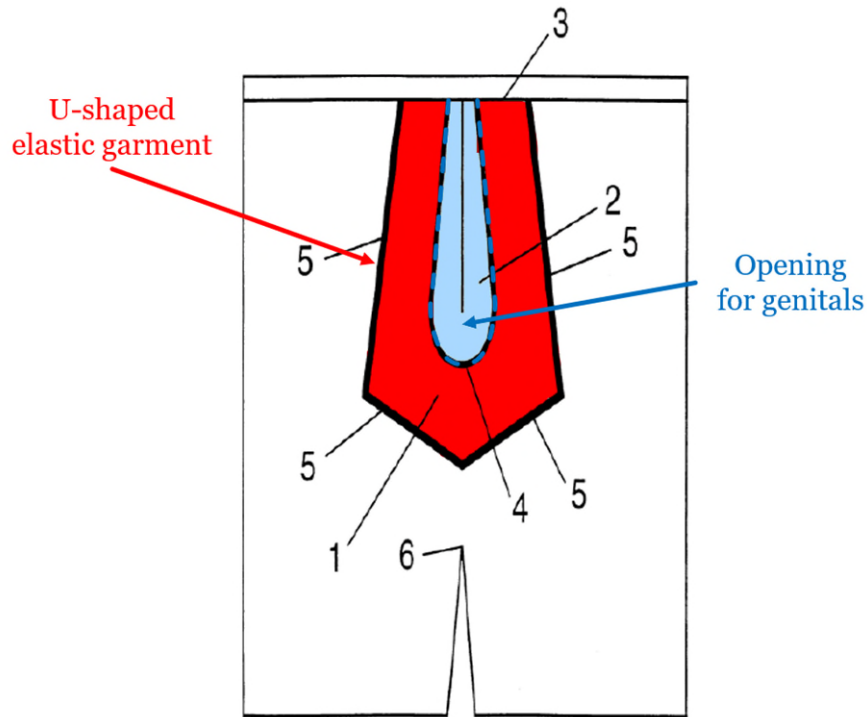
165. Carrillo in view of Brocks renders obvious Claim 11.

166. First, Carrillo, as modified by Brocks as I described above, includes a stretch panel (e.g., U-shaped elastic garment) sewn to an inner front part of the underwear while in a pre-stretched condition while the front portion is less stretched. See *supra* ¶¶133-141. Again, Brocks discloses stretching elastic material, which in its unstretched state is shorter in length than the front panel of men’s underwear to which it will be attached, and attaching the elastic material in a pre-stretched condition to an assembled front panel that is in a “less stretched” condition. *Id.* In

particular, as is clear from the disclosure of Brocks, only the elastic material, and not the assembled front panel, is stretched when the elastic strips are stitched to the front panel. (Brocks, 1:64-2:16, 3:24-4:14.) Because the elastic material is resilient, as discussed above, when it is put under tension and stretched, it will resiliently recover back to its unstretched condition when that tension is released. Thus, when attached and the stress force released, the elastic panels cause the less stretched front portion material 18 to “be gathered together and thereby define a genital pouch,” as taught by Brocks. (Brocks, 2:5-21, 4:2-14.) If both the elastic material and front panel material were the same length unstretched and then stretched the same amount when attached together, there would be no gathering.

167. *Second*, Carrillo’s elastic garment (1), attached in a stretched condition as taught by Brocks, would be biased to hold the opening (2) open while the garment is held in position to be put on. When a wearer puts on underwear, they hold the garment and stretch open the underwear at the waistband to create enough space to put the legs through the leg openings and pull the underwear up over the legs, hips, and waist. When Carrillo’s underwear, with the U-shaped elastic garment attached while in a stretched condition as explained above, is stretched open at the waistband so a wearer can put them, the U-shaped elastic garment would also stretch out during this process, making it taut on either side of the opening as it extends to its stretched position. This would maintain the separation between the two sides of U-shaped

elastic garment on either side of the opening, causing the opening to open up further. Thus, as shown in Carrillo's figure, with the panel stretched the tear dropped shaped opening would remain open, rather than the two sides folding over or covering the opening, when the user pulls open the underwear to put them on:

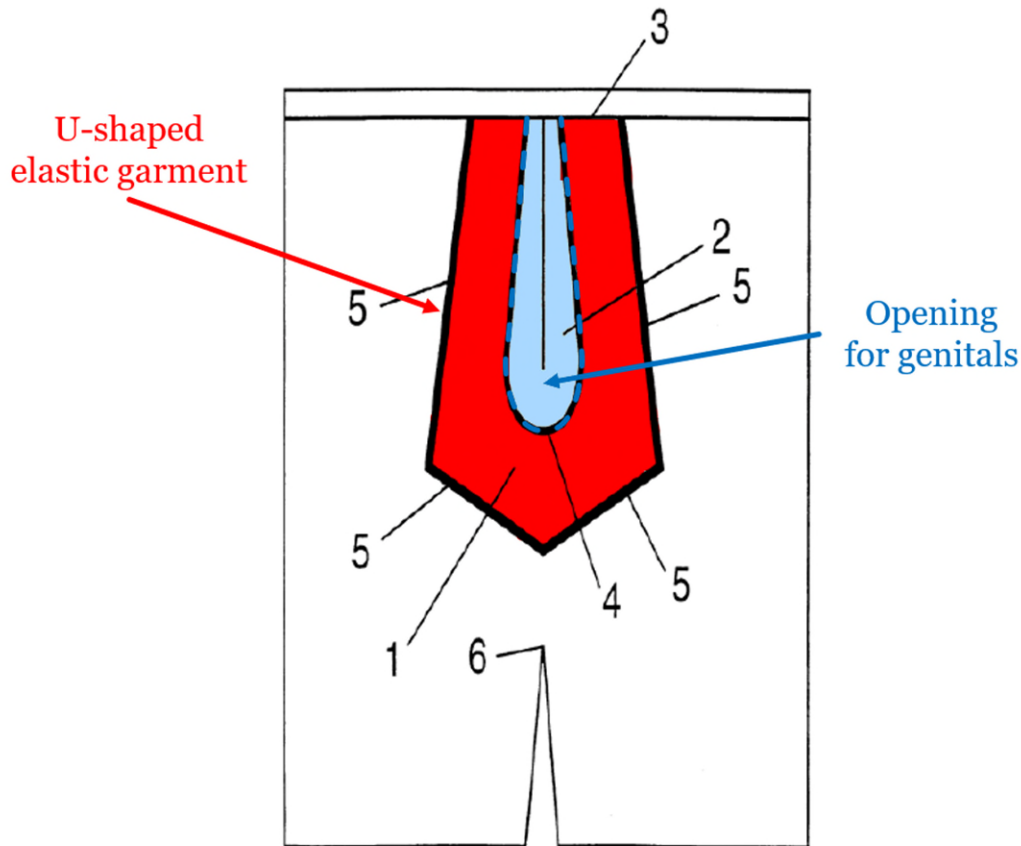


(Carrillo, Fig. (annotated).) Moreover, this is how the pouch in Carrillo is described as functioning, with the wearer “introducing the intimate parts through the opening (2)” of the elastic garment, after which the elastic garment “gently pull[s] them forward” when “the brief is worn as it normally is.” (Carrillo, 2.)

11. Dependent Claim 13

A male garment according to claim 1 wherein the opening has a U-shape when the stretch panel is in a relaxed state.

168. Carrillo in view of Brocks renders obvious Claim 13. Again, the opening of the elastic garment has a “U-shape,” as it is described as being “an opening (2) in the shape of a vertical teardrop”:

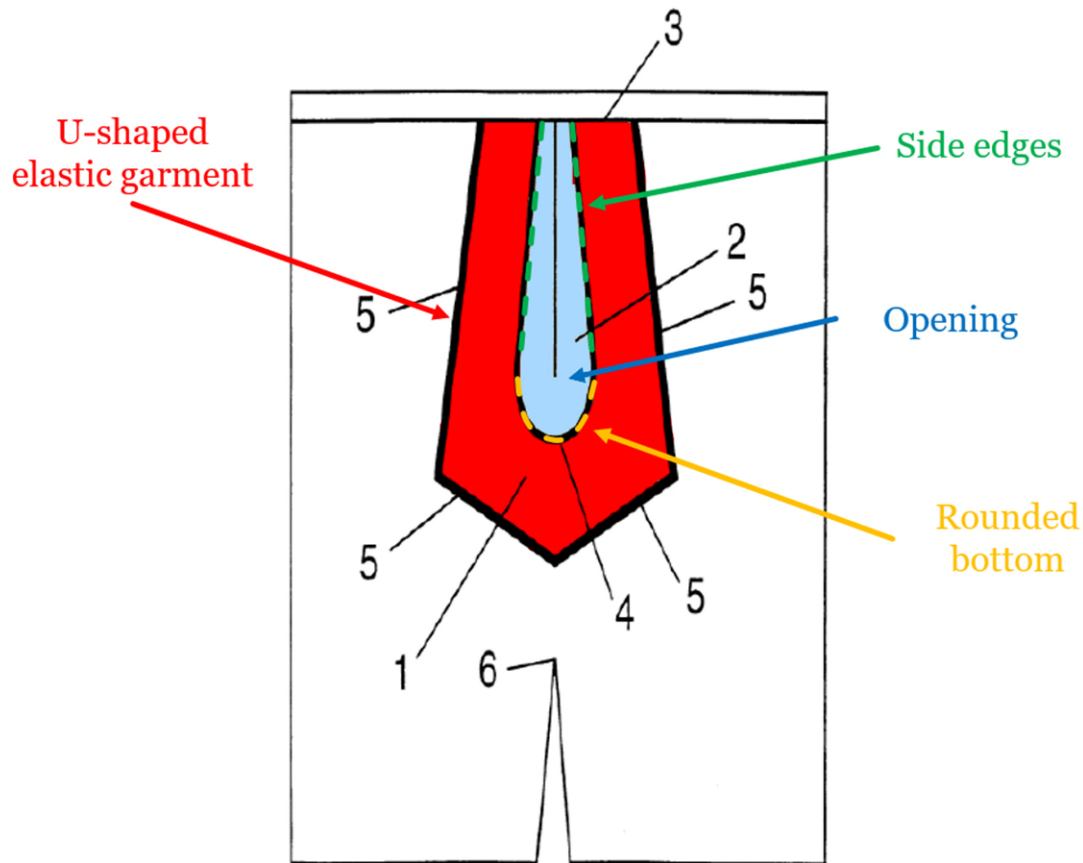


(Carrillo, Fig. (annotated), 2; see also Abstract, 3.) See also *supra* ¶¶150-151. The shape of the opening to the pouch when the U-shaped elastic garment is in a relaxed state (both before and after attachment) would be the same.

12. Dependent Claim 16

A male garment according to claim 1 wherein the stretch panel is rectangular and the opening has a rounded bottom edge and opposing side edges that are spaced apart from one another on either side of the opening.

169. Carrillo in view of Brocks renders obvious Claim 16. Carrillo discloses a generally rectangular “U-shaped elastic garment” (*e.g.*, stretch panel) with generally parallel sides and top and bottom edges, and with “an opening (2) in the shape of a vertical teardrop.” (Carrillo, 2; *see also* Abstract, 3.) *See also supra* ¶¶150-151. Further, as can be seen in Carrillo, the teardrop-shaped opening has a rounded bottom edge and the opposing side edges are spaced apart from one another on either side of the opening:



(Carrillo, Fig. (annotated).)

C. Ground 2b: Carrillo in View of Brocks and Kitsch Renders Obvious Claims 10, 12 and 15

1. Dependent Claim 10

A male garment according to claim 1, wherein the elastically resilient four-way stretch material is comprised of a spandex blend.

170. Carrillo (as modified by Brocks) in view of Kitsch renders obvious Claim 10. Carrillo discloses a stretch panel comprised of a U-shaped elastic garment. (Carrillo, Abstract, 1-3.) *See also supra* ¶¶117-126, 142-149.

171. Kitsch, in the same field as Carrillo, discloses “[a]n underwear garment for use by a male” with “a genital pouch[.]” (Kitsch, Abstract.) The pouch “includes elasticized breathable wicking mesh material side panels to isolate the scrotum and phallus from the legs and which wick away moisture and provides superior comfort.” (*Id.*, [0006]; *see also* [0002]; [0007]-[0008]; [0030]-[0033]; [0036].) Kitsch further discloses that the side panels are made from “a soft elasticized breathable mesh knit (in a so-called four-by-four stretch weave) containing 80% Nylon™ and 20% Spandex™.” (*Id.*, [0030].) *See also supra* ¶98.

172. It would have been obvious to a POSITA to use the 80% Nylon and 20% Spandex blend of Kitsch’s side panels as the elastic material of Carrillo’s U-shaped elastic garment. Carrillo and Kitsch are analogous art; both disclose men’s underwear with an elastic genital pouch that isolates and supports the genitals and reduces discomfort from excess moisture. (*Compare* Carrillo, 1-3 with Kitsch, [0006].) Carrillo discloses that its U-shaped garment is generally “elastic” and is intended to “improv[e] the perspiration of the [genital] area” by “eliminat[ing] direct

contact between the testicles and the groin, avoiding continuous friction or poor positioning of the testicles between the legs.” (Carrillo, 1.) Kitsch discloses spandex blend side panels for the same purpose, explaining that the spandex blend side panels “wick away moisture and provide[] superior comfort” and that “the flexibility and elasticity of the mesh side panel material, mould[s] to gently conform to the shape of the scrotum 14 in particular and allow for resiliently supported relative movement of the scrotum relative to the pubis and perineum” of the wearer. (Kitsch, [0006], [0029]; see also [0002], [0022]-[0024], [0008], [0030]-[0033], [0036].) Thus, it would have been obvious to a POSITA to use Kitsch’s spandex blend as the particular elastic material of Carrillo’s U-shaped elastic garment to achieve the same comfortable genital separation and support while wicking away moisture.

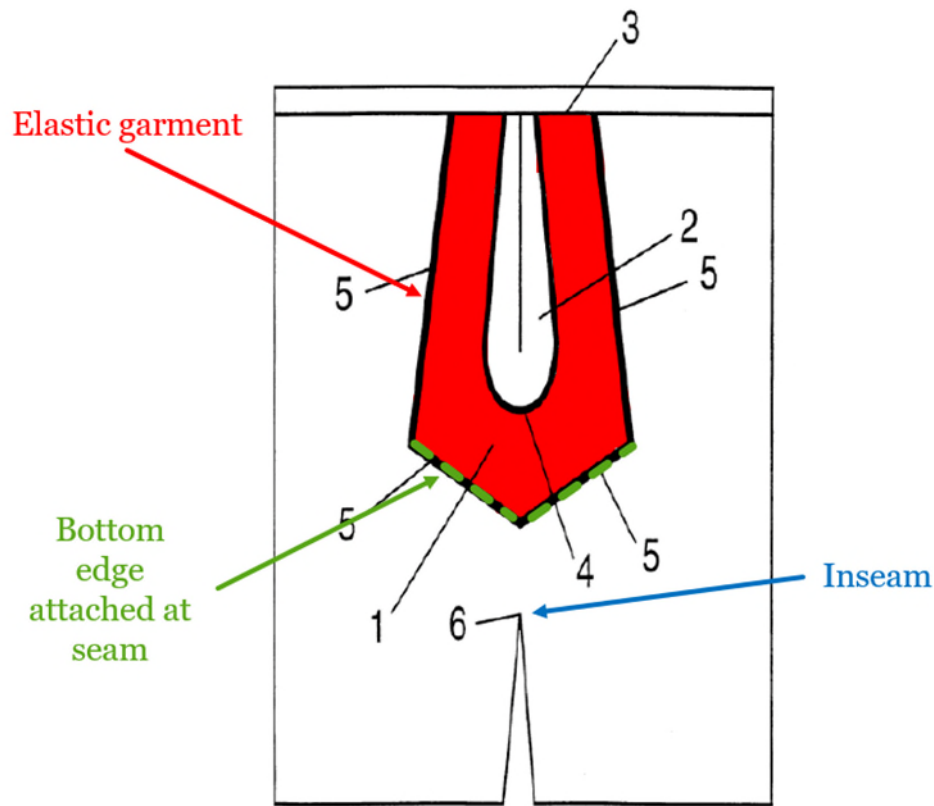
173. A POSITA would have understood that using the 80% Nylon and 20% Spandex blend of Kitsch’s side panels to construct Carrillo’s U-shaped elastic garment would be the normal use of a well-known material for its intended purpose. Without the use of a stretch material, the underwear wouldn’t be able to perform their function as a support garment, or be able to create a pouch, or be put on. Given that Kitsch uses the spandex blend material for the same function, a POSITA would have had a reasonable expectation of success in achieving Carrillo’s desired separation and isolation of the genitals with such spandex blend. A POSITA would have been motivated to use the spandex blend disclosed in Kitsch for the elastic

garment in Carrillo in order to have a material capable of sufficiently maintaining separation of the genitals from the groin area while also wicking away moisture to increase overall comfort. (Kitsch, [0006]; *see also* [0002], [0007]-[0008], [0030]-[0033], [0036].)

2. Dependent Claim 12

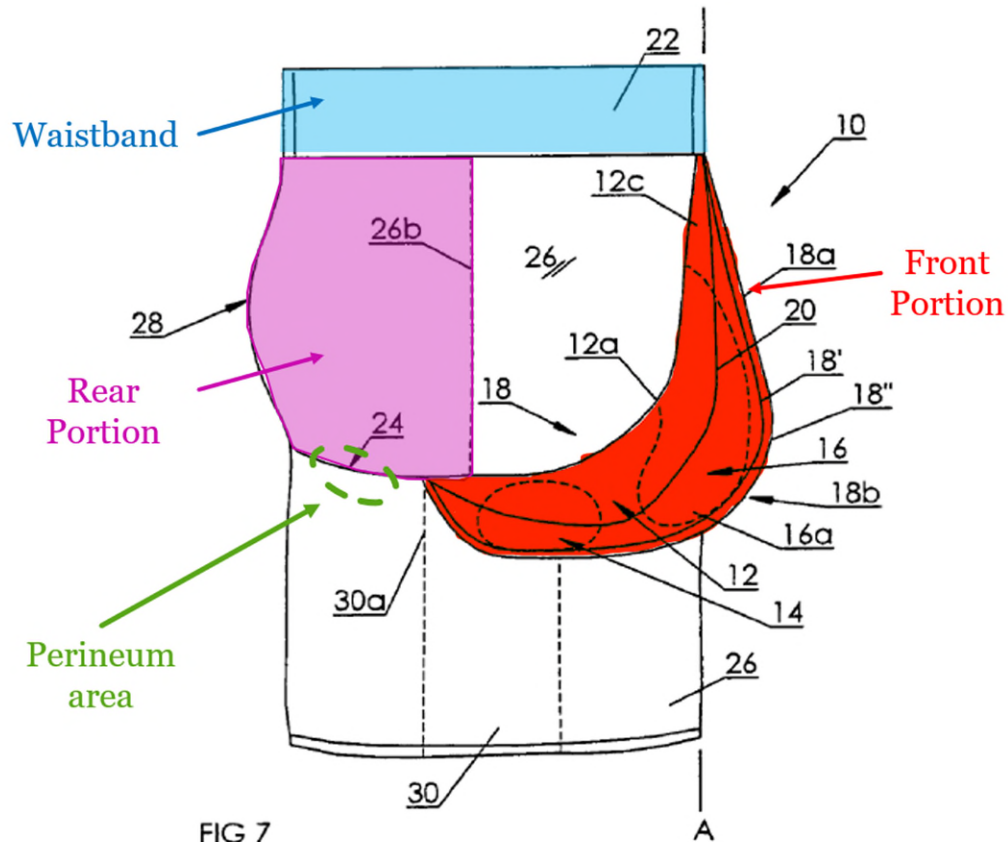
A male garment according to claim 11, wherein the front portion is attached to a rear portion of the body that depends from the waistband at a seam disposed forward of the perineum region of the wearer, and wherein a bottom edge of the stretch panel is fastened to the seam.

174. Carrillo (as modified by Brocks) in view of Kitsch renders obvious Claim 12. Carrillo discloses its stretch panel, the U-shaped elastic garment 1, is “sewn to the inner front part of standard briefs, in keeping with the models already existing on the market[.]” (Carrillo, 2, 3; *see also supra* ¶¶117-118.) In particular, the U-shaped elastic garment has a bottom edge fasted to the body at a seam 5 just above inseam 6 of the underwear:



(Carrillo, Fig. (annotated).)

175. Kitsch, in the same field as Carrillo (*see supra* ¶¶170-173), similarly discloses a “conventional pair” of “boxer style briefs” that have elastic fabric attached to a front inside portion thereof for the same purpose of isolating the genitalia and preventing contact with the inner thighs and legs of the wearer. (Kitsch, [0026]-[0027]; Carrillo, 1-2.) As explained above, Kitsch discloses that these “conventional” boxer briefs include “rear panel 2” that forms a rear portion of the body depending from the waistband 22:



(Kitsch, Fig. 7 (annotated), [0041].) As shown above, the rear portion 28 depends from, or extends downward from, where it is attached to the waistband. Further, in Kitsch's underwear, the front portion, "pouch compartment 18," is attached to the "rear panel 28" at a seam 30a disposed forward of the perineum area 24:

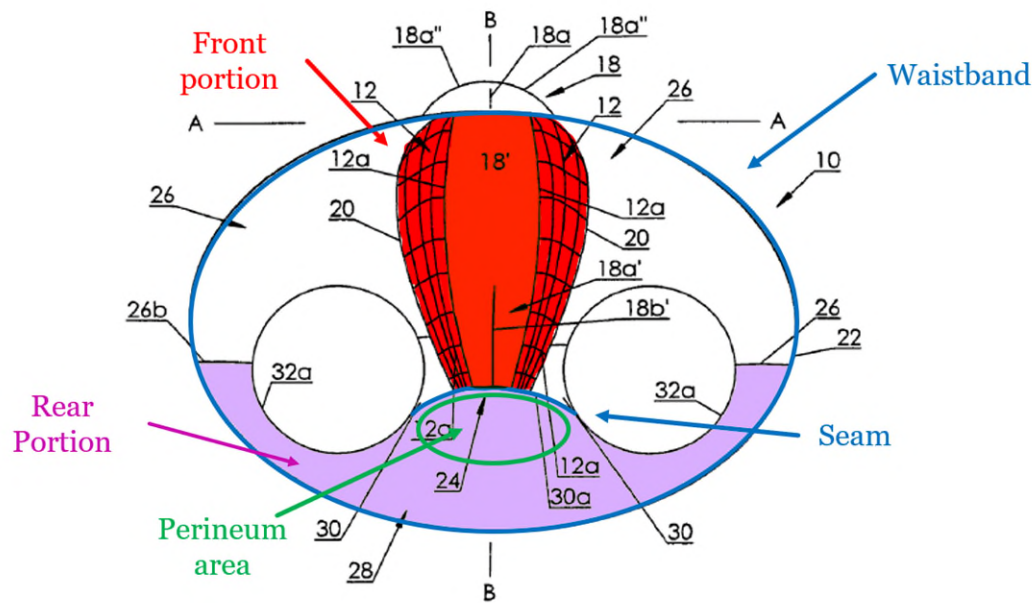


FIG 8

(Kitsch, Fig. 8 (annotated), [0041]; *see also* Figs. 3, 7 (annotated above), [0035]-[0040], Claim 1.) In particular, Kitsch notes that seam 30a is at “the rearmost end of pouch compartment 18,” which is where the pouch compartment joins the rear portion. Moreover, as shown in Figure 8 above, the bottom edge of Kitsch’s side panels 12 (*e.g.*, the bottom edge of its stretch panel) are fastened at the same seam 30a. (*Id.*, Fig. 8 (annotated); *see also* Figs. 3, 7, [0035]-[0041].) *See also supra* ¶¶55-60, 103.

176. It would have been obvious to a POSITA that Carrillo’s “standard brief” would have a front portion and a back portion, like the “conventional” briefs disclosed in Kitsch, with the front and back portions being separate pieces of fabric cut from desired patterns. For example, as disclosed in Kitsch, a POSITA would

have understood that constructing “standard briefs” using a front portion and back portion, both depending from Carrillo’s waistband, would have been a typical and well-known method of constructing underwear briefs. In fact, it was routine for a POSITA to create underwear using front and back portions joined together. This would have required nothing more than the use of known fabric patterns joined by known methods, such as the common types of seams disclosed in Kitsch. A POSITA would have had a reasonable expectation of success in constructing Carrillo’s briefs in this manner, as it would result in boxer briefs as shown in Carrillo that still have the “front portion” to which the U-shaped elastic garment is attached. (Carrillo, Fig., 2-3.)

177. Moreover, it would have been obvious to sew the bottom edge of Carrillo’s U-shaped elastic garment at a seam joining the front portion to the back portion at a position forward of the perineum area as taught by Kitsch. This would have been implementing a well-known method of attachment, by connecting to a common seam, as taught by Kitsch, and a POSITA would have had a reasonable expectation of success in sewing the bottom edge of the U-shaped at the seam joining the front and back portions. In doing so, the U-shaped garment would continue to be attached to the body of the underwear by sewing, and would be joined along a stronger seam. A POSITA would have also been motivated to do so because making the seam that attaches the rear and front portions coincident with the seam that

attaches the U-shaped elastic garment to the body, the construction of the garment would reduce the number of seams necessary. Having fewer seams also furthers Carrillo's goal of addressing itching, friction, and irritation as each seam is a place especially susceptible to causing such issues. (Carrillo, Abstract, 1-3.)

178. A POSITA would have further been motivated to attach Carrillo's U-shaped garment to a back portion of the underwear briefs at a seam forward of the perineum, as taught by Kitsch, in order to ensure that the elastic material extends far enough back to separate and isolate the testicles from the legs and groin area. (Carrillo, 1-2; Kitsch, Abstract, [0002], [0006]-[0008], [0026]-[0027], [0030]-[0033], [0036].) This is the stated purpose of both Carrillo and Kitsch (*id.*), and a POSITA would have understood from Kitsch that extending the elastic stretch panel material to such a seam ensures that the stretch panel material, in cooperation with the front portion to which it attaches, closely resembles the "natural setting of the genitals" for isolation and support that will be positioned to cradle the underside of the scrotum. (Kitsch, [0008], [0026]-[0027], [0030]-[0039].)

179. Furthermore, having the seam, and therefore the bottom edge of the U-shaped elastic garment, forward of the wearer's perineum region allows the U-shaped elastic garment to "gently pull [the wearer's testicles] forward, achieving ... sufficient separation to reduce direct contact and friction (Carrillo, 2.) If the seam

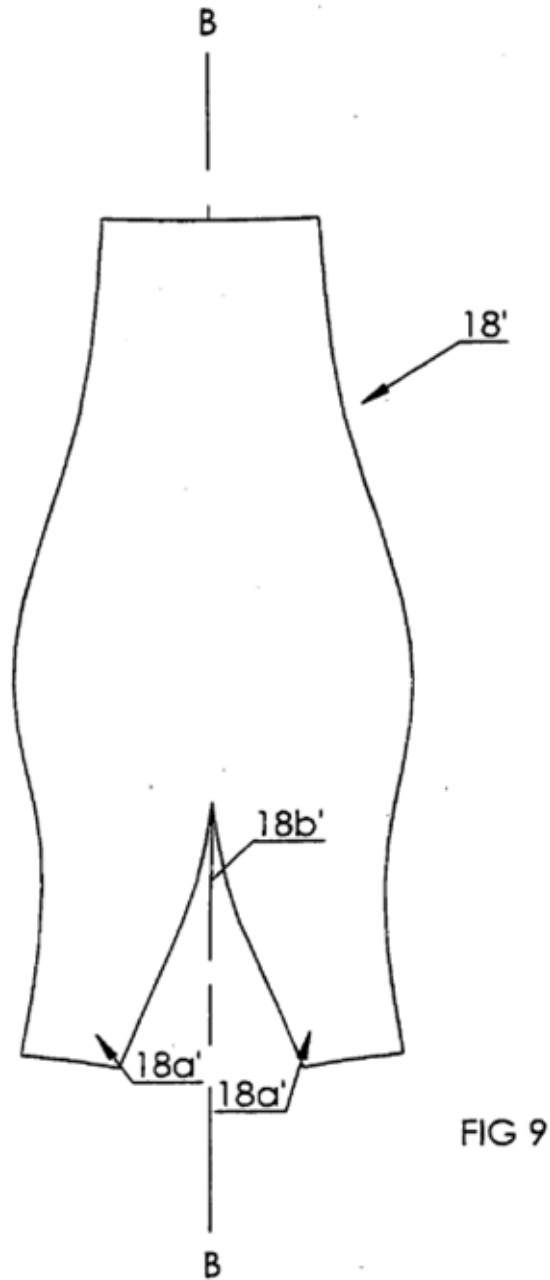
was not placed forward of the wearer's perineum, the U-shaped elastic garment would not be in as advantageous of a position to pull the wearer's genitals forward.

3. Dependent Claim 15

A male garment according to claim 1 wherein the pouch comprises a dart seam stitched along a bottom portion of the pouch and centrally to provide extra volume in front of and underneath the genitals of the wearer.

180. Carrillo (as modified by Brocks) in view of Kitsch renders obvious Claim 15. Carrillo discloses that the base of opening in U-shaped elastic garment “is located between the testicles and the groin” so that the “testicles tend to be separated towards the front due to the fact that the garment is sewn to the inner front part of the underpants.” (Carrillo, Abstract, 1-2.)

181. Kitsch, in the same field as Carrillo (*see supra* ¶¶170-173), discloses a pouch compartment formed between a front portion of underwear and elastic panels, like the front portion and U-shaped elastic garment in Carrillo. *See supra* ¶¶45-72. Kitsch further discloses that the front portion forming its pouch comprises a dart seam 18b' that joins “a pair of divergent tails” to form “a shelf-like tableau or plateau 18a' cradling the underside of scrotum 14.” (Kitsch, [0030], [0036], Figs. 3, 8-9.) As I explained above, a dart seam is formed by folding the fabric onto itself and sewing along the dart sewing line. As shown in Figure 9, the dart seam in Kitsch is formed by using a piece of fabric for the inner liner 18' of the pouch with a “wedge” cut out of the bottom of it, forming the two “divergent tails” 18a':



(*Id.*, Fig. 9.) When these two tails are sewn together at dart seam 18b', the fabric no longer lays flat and instead the dart seam creates dome-like volume where the two “tail” pieces are pulled together and sewn.

182. In Kitsch, dart seam 18b' is stitched along a bottom portion of the pouch as it is sewn at the divergent tail ends of 18' in the rearmost area of pouch 18, and is centrally in the middle of the pouch compartment:

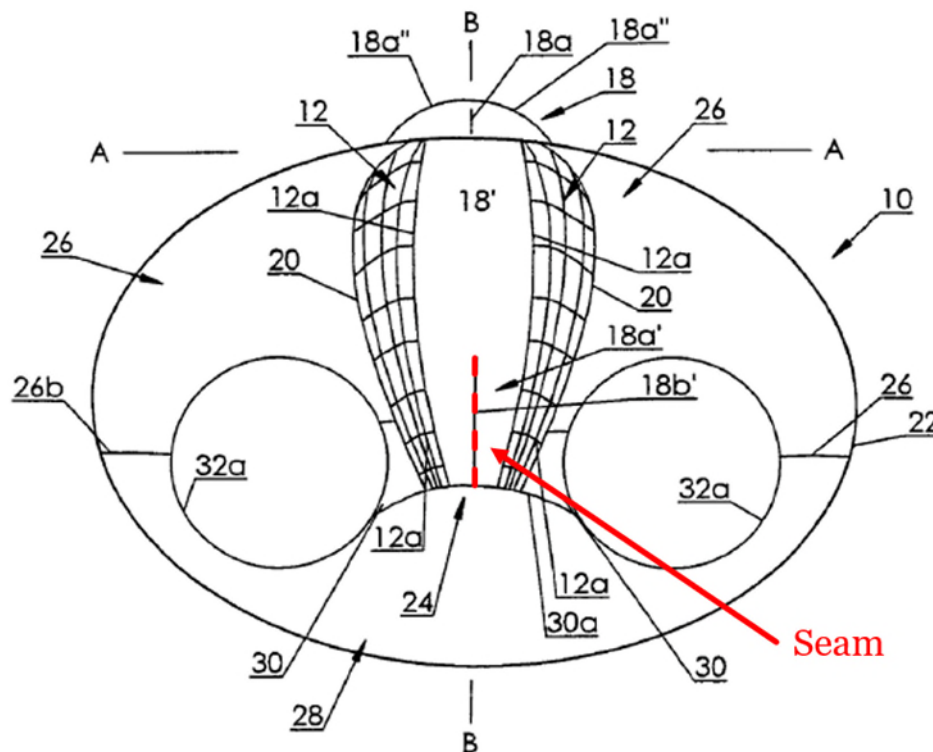


FIG 8

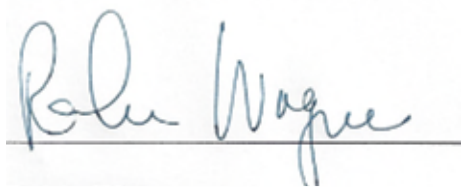
(*Id.*, Fig. 8 (annotated); *see also* Figs. 3, 9, [0030]-[0036].)

183. It would have been obvious to a POSITA to include such a dart seam along the bottom of the front portion of the underwear in Carrillo, in front of the opening, so as to provide “greater pouch volume” and more dimensionality, and ensure there is room for the front portion material to receive the genitals when they are introduced through the opening. Further, a POSITA would have been motivated

to use such a pouch seam so as to form the “plateau” described in Kitsch, as this would also support the genitals and assist in achieving Carrillo’s goals of having the genitals separated from the groin and leg to eliminate contact, thereby reducing friction and improving positioning. (*Id.*; Carrillo, Abstract, 1-2.) A POSITA would have had a reasonable expectation of success in implementing such a dart seam in Carrillo, as a dart seam was a common, and very well-known method to join portions of a piece of fabric in order to create a three-dimensional shape and add additional volume. This would have been nothing more than using a well-known technique for its intended purpose, and would have, as mentioned, helped to achieve Carrillo’s goals of having a separate space for the genitals such that they are separated from the groin and legs.

VI. CERTIFICATION

I declare 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 are punishable by fine, imprisonment, or both, under Section 1001 of Title 18 of the U.S. Code.

A handwritten signature in blue ink, reading "Robin Wagner", is written over a horizontal line.

Robin Wagner

Dated: July 12, 2024

APPENDIX A

Materials Considered

Exhibit No.	Description
1001	U.S. Patent No. 10,834,974 (“ 974 Patent ”)
1002	File History for the ’974 Patent
1003	File History for U.S. Patent No. 10,034,496
1004	File History for U.S. Patent No. 9,687,030
1005	Declaration of Robin Wagner
1006	Curriculum Vitae of Robin Wagner
1007	U.S. Patent Application Publication 2008-0178369 (Kitsch)
1008	U.S. Patent No. 5,461,729 (“ Brocks ”)
1009	WO 01/37687 (“ Carrillo ”)
1010	WO 01/37687 (“ Carrillo ”) – English Translation with Certification