UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BABY BJORN AB
Petitioner

v.

ERGO BABY CARRIER INC.
Patent Owner

DECLARATION OF DAVID SMITH, P.E., CSP

IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF

U.S. PATENT NO. 11,786,055

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I. Introduction

I, David Smith, declare as follows:

1. I have been retained on behalf of Baby Bjorn, AB ("Baby Bjorn") for the above-captioned *inter partes* review proceeding to provide my expert opinions and expert knowledge. I understand that this proceeding involves U.S. Patent No. 11,786,055 ("the `055 Patent") titled "Adjustable Child Carrier" by Rodney V. Telford, and that the `055 Patent is currently assigned to The ERGO Baby Carrier, Inc., ("ERGO"). I have been informed that the focus of this proceeding is challenging claims 1-30 of the `055 Patent (the "Challenged Claims").

2. In preparing this declaration, I have reviewed and am familiar with all the references cited herein. I have reviewed and am familiar with the `055 Patent and its file history. I confirm that to the best of my knowledge the accompanying exhibits are true and accurate copies of what they purport to be, and that an expert in the field would reasonably rely on them to formulate opinions such as those set forth in this declaration.

3. The `055 Patent describes embodiments of adjustable baby carriers. I am familiar with the technology described in the `055 Patent as of its April 20, 2023 filing date and its claimed October 30, 2015 priority date.

4. I have been asked to provide my independent technical review, analysis,

insights, and opinions regarding the `055 Patent and the references that form the basis for the grounds of rejection set forth in the Petition for *Inter Partes* Review of the `055 Patent.

II. Qualifications

5. A copy of my Curriculum Vitae is submitted as Exhibit 1004 in this proceeding. It includes details of my education, professional, and employment credentials. Further experience with baby products and products with adjustable portions is laid out below.

6. I am currently the President of Alpine Engineering & Design, Inc. I am a registered Professional Mechanical Engineer in the States of Utah and Idaho. I am also a Certified Safety Professional in comprehensive practice. I received my Bachelor of Science degree in Mechanical Engineering from Brigham Young University - Idaho, in 2007. I received a Master's of Science Degree in Mechanical Engineering and a Masters of Business Administration (MBA) from Brigham Young University in 2011. I have approximately 15 years of experience in the fields of mechanical engineering, product development, mechanical design, and much of this design work has involved axle and pivot assemblies and other rotating components. In my role as a consultant, I have worked on numerous products, including baby bottle warmers, car seat handles, baby bouncers, and products including soft goods such as pet

carriers, hammocks, collapsible soccer goals, and the like.

7. I am a named inventor on 7 U.S. patents with a number of other patent applications pending. A list of my patents is appended with my CV. I have significant experience with the patent process.

8. I have testified in a number of cases, both at trial and by deposition. My time is billed at a rate of $500 per hour in this proceeding. The compensation received from this case is not contingent upon my opinions or performance, the outcome, or any issues involved in or related to the proceeding.

III. My Understanding of Legal Principles

9. I understand that the Petitioner must demonstrate by a preponderance of the evidence that the challenged claims are unpatentable. I understand that the preponderance of the evidence standard is one characterized as being more likely than not. As each claim is considered a separate invention, I understand that the Petitioner's burden is applicable individually to each claim.

10. I further understand that determining whether a patent claim is unpatentable requires two steps: first, construction of the meaning and scope of the claim (or individual terms of the claim), and second, comparing the properly construed claim to the prior art. A party may assert unpatentability on the basis of anticipation or obviousness.

11. I understand that my analysis requires an understanding of the scope of the `055 Patent claims and that the disclosures of the `055 Patent and the prior art are judged from the perspective of a person of ordinary skill in the art at the time of the purported invention. For the purposes of this declaration, I have been instructed to consider the time of the purported invention of the `055 Patent to be October 30, 2015, the earliest possible priority date for the `055 Patent.

12. I understand that during an *inter partes* review, claims of an unexpired patent are to be construed according to their ordinary and customary meaning as would be understood by a person of ordinary skill in the relevant art within the context of the patent record. Unless otherwise noted, I have given the claim terms their plain and ordinary meaning as understood by a person of ordinary skill in the art at the time of purported invention.

13. I understand that a patent applicant ordinarily claims the structures of its invention directly by reciting such structure in the claims. I understand also that a patent applicant may claim subject matter "as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof." 35 U.S.C. § 112(f). If a patentee chooses to do so, I understand that the scope of the claim is restricted "to only the structure, materials, or acts described in the specification as corresponding to the

claimed function and equivalents thereof."[1]. I understand that the absence of the word "means" in a claim creates a rebuttable presumption that Section 112(f) does not apply.[2] I also understand, however, that "the presumption can be overcome . . . if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function."[3]

14. I understand that a claim is unpatentable if it is anticipated or obvious. I understand that anticipation of a claim requires that every element of a claim is expressly or inherently disclosed in a single prior art reference. I understand that an anticipating reference need not use the exact terms of the claims, but must describe the patented subject matter with sufficient clarity and detail to establish that the claimed subject matter existed in the prior art and that such existence would be recognized by persons of ordinary skill in the field of the purported invention. I also understand that an anticipating reference must enable one of ordinary skill in the art to reduce the purported invention to practice without undue experimentation.

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[1] *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347 (Fed. Cir. 2015)

[2] *Id*. at 1348

[3] *Id*. at 1349 (internal quotations omitted).

15. I understand that a patent claim is unpatentable if the claimed invention would have been obvious to a person of ordinary skill in the art at the time of the purported invention. This means that even if all of the requirements of the claim cannot be found in a single prior art reference that would anticipate the claim, the claim can still be unpatentable.

16. I understand that an obviousness analysis involves comparing a claim to the prior art to determine whether the claimed invention would have been obvious to a person of ordinary skill in the art at the time of the purported invention in view of the prior art and in light of the general knowledge in the art as a whole. I also understand that obviousness is ultimately a legal conclusion based on underlying facts of four general types, all of which must be considered: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) any objective indicia of non-obviousness.

17. I also understand that obviousness may be established by combining or modifying the teachings of the prior art. Specific teachings, suggestions, or motivations to combine any first prior art reference with a second prior art reference can be explicit or implicit, but if relied upon must have existed before the date of purported invention. I understand that prior art references themselves may be one source of a specific teaching or suggestion to combine

features of the prior art, but that such suggestions or motivations to combine art may come from the knowledge of a person of ordinary skill in the art. Specifically, a rationale to combine the teachings of references may include logic or common sense available to a person of ordinary skill in the art.

18. I understand that a reference may be relied upon for all that it teaches, including uses beyond its primary purpose. I understand that though a reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, the mere disclosure of alternative designs does not teach away.

19. I further understand that whether there is a reasonable expectation of success from combining references in a particular way is also relevant to the analysis. I understand there may be a number of rationales that may support a conclusion of obviousness, including:

- Combining prior art elements according to known methods to yield predictable results;
- Substitution of one known element for another to obtain predictable results;
- Use of a known technique to improve similar devices (methods, or products) in the same way;

- Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- "Obvious to try"–choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art; and
- Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art teachings to arrive at the claimed invention.

20. I understand that it is not proper to use hindsight to combine references or elements of references to reconstruct the invention using the claims as a guide. My analysis of the prior art is made from the perspective of a person of ordinary skill in the art at the time of the purported invention.

21. I understand that so-called objective indicia may be relevant to the determination of whether a claim is obvious should such evidence be alleged. Such objective indicia can include evidence of commercial success caused by an invention, evidence of a long-felt need that was solved by an invention, evidence that others copied an invention, skepticism or disbelief by those

skilled in the art, failure of others, praise of the invention, evidence that an invention achieved a surprising result, or near simultaneous invention by multiple parties. I understand that most of such evidence must have a nexus, or causal relationship to the elements of a claim, in order to be relevant to the obviousness or non-obviousness of the claim. I am unaware of any such objective considerations of non-obviousness having a nexus to the claims at issue in this proceeding.

22. I understand that for a reference to be used to show that a claim is obvious, the reference must be analogous art to the claimed invention. I understand that a reference is analogous to the claimed invention if the reference is from the same field of endeavor as the claimed invention, even if it addresses a different problem, or if the reference is reasonably pertinent to the problem faced by the inventor, even if it is not in the same field of endeavor as the claimed invention. I understand that a reference is reasonably pertinent based on the problem faced by the inventor as reflected in the specification, either explicitly or implicitly.

IV. Overview of the `055 Patent

23. The US 11,786,055 to ERGO is titled Adjustable Child Carrier and is directed to a soft structured child carrier that can be worn on both the front or the back of the wearer and is adjustable in order to maintain an ergonomic carrying

position of the child throughout multiple stages of the child's physical development. The patent states: "Embodiments described herein provide a wearable child carrier that can be adapted to a baby's size and provide ergonomic positioning of the child throughout the range of the carrier adjustability."[4]

24. The `055 Patent teaches that the intended ergonomic position of the child is the spread squat position – commonly known as the "frog leg", "frog", or "M" position – in which the child's spine is maintained in a natural "C" curve and the child's weight is distributed so as to encourage pelvic development by avoiding a "posture where the child is primarily sitting on his or her sacrum".[5]

25. The patent teaches a soft structured child carrier of typical design, in which a main body is coupled to shoulder straps and a waist belt. The main body is comprised of a torso support portion, which is configured to provide support of the upper body of the child, a bucket seat portion, which is configured to support the hips and posterior of the child, and two thigh supports (one on each side of the bucket seat), the two of which are configured to support the legs of the child.[6]

[4] `055 Patent 2:34-37

[5] `055 Patent 7:31-39

[6] `055 Patent 7:18-39

26. The torso support is connected to the wearer by the shoulder straps, the first ends of which are permanently fixed to the top of the torso support. The opposing ends of the shoulder straps are detachably attached to the lower half of the torso support. The shoulder straps are of the type commonly used in the art.

27. The carrier includes a bucket seat. The depth and width of the bucket seat can be adjusted. Adjusting the depth of the bucket seat consequently adjusts the height of the carrier.

28. The thigh supports are permanently fixed to the torso support and disposed on each side of a seat center portion, and are detachably attached to the inside of the waist belt by the base width adjusters 150. The design of the thigh support attachment system allows the user to selectively configure the base width adjusters to adjust the width and depth of the bucket seat and thigh support combination.[7]

29. Also included is an adjustable neck support, which attaches to the torso support at one of three discrete connection points. The neck support can act as a head, neck, or back support depending on the attachment configuration and the size of the child.[8]

[7] `055 Patent 8:12-19

[8] `055 Patent 14:8-20

30. These elements are identified in the annotated Figure 2A and 2B of the `055 Patent below. The torso support is shown in red, the neck support in purple, the waist band in orange, the bucket seat in green, the thigh supports in blue, the shoulder straps in teal, and the thigh width adjusters in yellow. Figure 2A shows an inside view of the baby carrier and Figure 2B shows an outside view of the baby carrier.

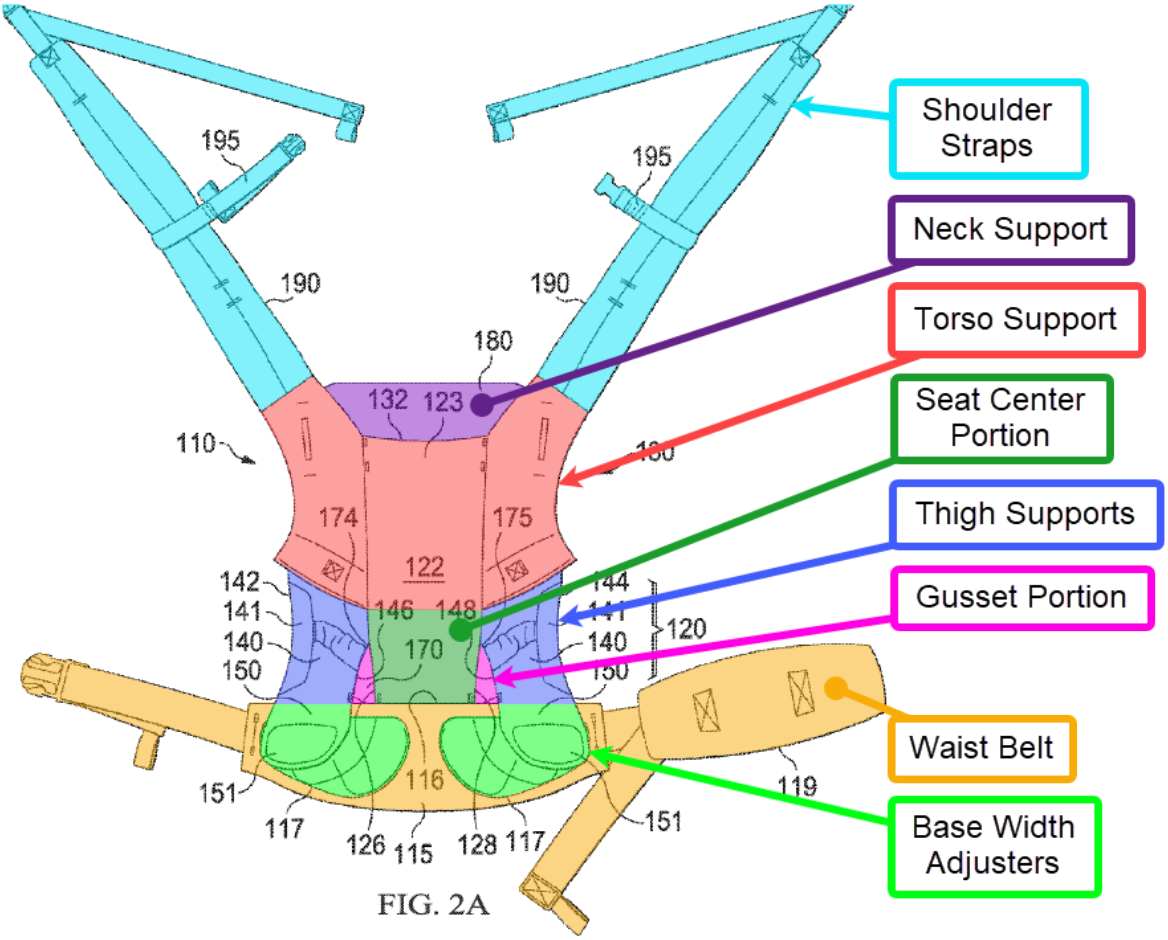


FIG. 2A

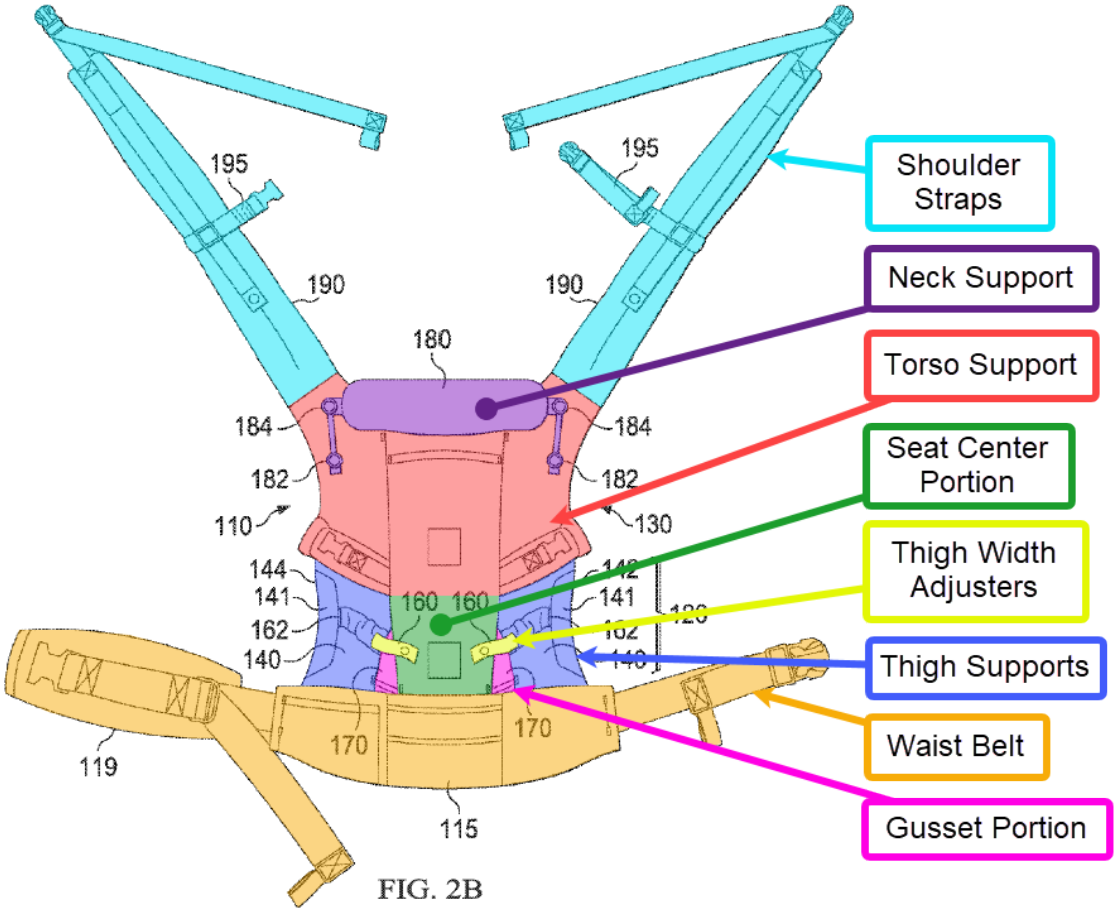


FIG. 2B

V. Challenged Claims

31. I have listed the challenged claims below, with numbers and letters identifying each element of the claims that are used for clarity throughout the report.

Claim 1

1pre – "An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:"

1a – "a body configured to support the child,"

1b – "wherein the body forms a bucket seat configured to support legs of the

child;”

1c – “a neck support comprising a first neck support attachment and a second neck support attachment;”

1d – “a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;”

1e – “a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;”

1f – “a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;”

1g – “a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;”

1h – “wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;”

1i – “the body forming a first thigh support and a second thigh support;”

1j – “a first setting, a second setting, and a third setting defined by the adjustable child carrier; and”

1k – “at least one thigh support adjuster coupled to the first thigh support and the second thigh support,”

1m – “wherein the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages,”

1n – “wherein the length is defined from a bottom of the bucket seat to a top of the body.”

Claim 2

2pre – “The adjustable child carrier of claim 1,”

2a – “wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length,”

2b – “wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length,”

2c – “wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.”

Claim 3

3 pre – “The child carrier of claim 1,”

3a – “wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.”

Claim 4

4 pre – "The adjustable child carrier of claim 1,"

4a – "wherein the first setting is at least partially vertically displaced from the second setting,"

4b – "the second setting is at least partially vertically displaced from the third setting,"

4c – "and the third setting is at least partially vertically displaced from the first setting,"

4d – "wherein the adjustable child carrier defines the second setting between the first setting and the third setting."

Claim 5

5 pre – "The adjustable child carrier of claim 2,"

5a – "wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode,"

5b – "wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches."

Claim 6

6 pre – "An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:"

6a – "a body configured to support the child between the body and a torso of

the user,"

6b – "wherein the body forms a bucket seat configured to support legs of the child;"

6c – "a neck support comprising a first neck support attachment and a second neck support attachment;"

6d – "a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;"

6e – "a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;"

6f – "a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;"

6g – "a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,"

6h – "wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;"

6i – "the body forming a first thigh support and a second thigh support;"

6j – "at least one thigh support adjuster coupled to the first thigh support and the second thigh support; and"

6k – “a first position, a second position, and a third position defined by the adjustable child carrier,”

6l – “wherein the first position corresponds to a first setting, the second position corresponds to a second setting, and the third position corresponds to a third setting,”

6m – “wherein adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure the adjustable child carrier to one of the first setting, the second setting, or the third setting,”

6n – “the length defined from a bottom of the bucket seat to a top of the body.”

Claim 7

7 pre – “The adjustable child carrier of claim 6,

7a – “wherein adjustment of the at least one thigh support adjuster from the first position to the second position adjusts the length of the body from a first length to a second length,”

7b – “the second length being greater than the first length,”

7c – “wherein adjustment of the at least one thigh support adjuster from the second position to the third position adjusts the length of the body from the second length to a third length,”

7d – “the third length being greater than the first length and the second

length."

Claim 8

8 pre – "The adjustable child carrier of claim 6,"

8a – "wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child."

Claim 9

9 pre – "The adjustable child carrier of claim 6,"

9a – "wherein the first position is at least partially vertically displaced from the second position,"

9b – "the second position is at least partially vertically displaced from the third position,"

9c – "and the third position is at least partially vertically displaced from the first position,"

9d – "wherein the adjustable child carrier defines the second position between the first position and the third position."

Claim 10

10 pre – "The adjustable child carrier of claim 7,"

10a – "wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode,"

10b – "wherein, in the infant mode, the adjustable child carrier is configured

to carry the child when the child has a height within a range of 20-24 inches."

Claim 11

11 pre – "An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:"

11a – "a body configured to support the child,"

11b – "wherein the body forms a bucket seat configured to support legs of the child;"

11c – "a neck support comprising a first neck support attachment and a second neck support attachment;"

11d – "a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;"

11e – "a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;"

11f – "a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;"

11g – "a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,"

11h – "wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second

attachment;"

11i – "wherein folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position;"

11j – "the body forming [G1] a first thigh support and [G2] a second thigh support;"

11k – "wherein the body, the first thigh support, and the second thigh support in combination form a seat for the child;"

11l – "a first setting, a second setting, and a third setting defined by the adjustable child carrier; and"

11m – "at least one thigh support adjuster coupled to the first thigh support and the second thigh support,"

11n – "wherein selective positioning of the at least one thigh support adjuster at the first setting, the second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages,"

11o – "the length defined from a bottom of the bucket seat to a top of the body."

Claim 12

12 pre – "The adjustable child carrier of claim 11,"

12a – “wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.”

Claim 13

13 pre – “The adjustable child carrier of claim 11,”

13a – “wherein the first setting is at least partially vertically displaced from the second setting,”

13b – “the second setting is at least partially vertically displaced from the third setting,”

13c – “and the third setting is at least partially vertically displaced from the first setting,”

13d – “wherein the adjustable child carrier defines the second setting between the first setting and the third setting.”

Claim 14

14 pre – “The adjustable child carrier of claim 11,”

14a – “wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length,”

14b – “wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length,”

14c – “wherein selectively positioning the at least one thigh support adjuster

at the third setting adjusts the length of the body to a third length greater than the second length."

Claim 15

15 pre – "The adjustable child carrier of claim 11,"

15a – "wherein the seat is configured to support the child in a spread squat position."

Claim 19

19 pre – "The adjustable child carrier of claim 1,"

19a – "wherein the bucket seat is configured to support the child in a spread squat position."

Claim 20

20 pre – "The adjustable child carrier of claim 6,"

20a – "wherein the bucket seat is configured to support the child in a spread squat position."

Claim 21

21 pre – "The adjustable child carrier of claim 5,"

21a – "wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches."

Claim 22

22 pre – "The adjustable child carrier of claim 10,"

22a – "wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches."

Claim 23

23 pre – "The adjustable child carrier of claim 14,"

23a – "wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches."

Claim 24

24 pre – "The adjustable child carrier of claim 23,"

24a – "wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches."

Claim 28

28 pre – "The adjustable child carrier of claim 1,"

28a – "wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster."

Claim 29

29 pre – "The adjustable child carrier of claim 6,"

29a – "wherein each of the first position, the second position, and the third position is visible to the user for the adjustment of the at least one thigh support adjuster."

Claim 30

30 pre – "The adjustable child carrier of claim 11,"

30a – "wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster."

VI. Level of Ordinary Skill in the Art

32. I understand that several factors are relevant to determining the level of ordinary skill in the art at the time of the claimed invention. I understand that those factors include: (1) the educational level of the inventor(s); (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.

33. The art of the `055 Patent relates to child carriers, and more particularly child carriers that are adaptable to ergonomically carry a child as the child grows.[9]

34. Mr. Rodney V. Telford is the sole inventor of the `055 Patent. It is my understanding that Mr. Telford has a degree from the Parsons School of Design.[10]

35. The types of problems encountered in the art include creating a baby carrier that is comfortable and ergonomic for both the child and the wearer. For years, this has included incorporating adjustments into child carriers, including adjustments for width, height and neck supports. There are many prior art solutions to the problems encountered in the art, as evidenced by the hundreds of patents and prior art publications listed on the face of the patent. Prior art solutions to the problems included adjustable portions for the height and width of the main body as well as for the neck support. Well known and common techniques included buttons, drawstrings, hook and loop (Velcro®), zippers, inserts and the like.

36. Innovations are made incrementally, as child carriers are not new and the materials, components, elements and methods are generally known in the art.

[9] `055 Patent 1:20-25

[10] https://www.linkedin.com/in/rodney-telford-18043378/ (Ex. 1020)

Further, the technology is not sophisticated, consisting of fabric, and fasteners that are widely used.

37. Workers in the field commonly have a degree in a design-based art or science including industrial design,[11] product development,[12] fashion design,[13] or engineering.

38. After considering the factors mentioned above, and based on the disclosure of the `055 Patent, a POSITA at the relevant time would have had at least a four-year degree in a design-based field which may include, fashion design, industrial design, mechanical engineering or another technical field of study, or equivalent experience, and familiarity working with child products and/or adjustable products.

VII. Summary of the Prosecution History

39. The provisional patent application to which the `055 Patent claims priority was initially filed on Oct. 30, 2015. The `055 Patent is assigned to The ERGO Baby Carrier, Inc., (ERGO). The prosecution file history shows that the claims were rejected upon initial examination, with the examiner stating that the claims were unpatentable for double patenting over the claims of three

[11] https://www.linkedin.com/in/kevinscheiferstein/ (Ex. 1021)

[12] https://www.linkedin.com/in/thomas-aleblad-5b23ab40/ (Ex. 1022)

[13] https://www.linkedin.com/in/rodney-telford-18043378/ (Ex. 1020)

parent patents (U.S. Patent Nos. 10,426,275; 11,051,634; and 11,583,104), which are also assigned to ERGO.[14] After 15 new claims were added, and all the existing claims were either amended or cancelled[15], a notice of allowance of claims 2-5, 8-9, 11-13, 15-16, & 18-36 was issued on August 31, 2023 and the patent issued on October 17, 2023. Notably, the amended claims now included the phrase "bucket seat", the discretization of the thigh support adjustments and their relation to the "length of the [main] body", and the definitions of "infant mode" and "toddler mode", among others.[16]

A. Claim Construction

40. I understand that during an *inter partes* review, claims of an unexpired patent are to be construed according to their ordinary and customary meaning as would be understood by a person of ordinary skill in the relevant art within the context of the patent record.

1. Thigh Support Adjuster

41. The term "thigh support adjuster" does not have an ordinary or customary meaning as would be understood by a POSITA in the context of the patent record.

42. The term "thigh support adjuster" only appears in the claims, it does not

[14] Office Action 08/07/2023 – Non-Final Rejection

[15] Amended Claims 8/22/2023

[16] Amended Claims 8/22/2023

appear in the specification. It was not a topic discussed in a meaningful way between the examiner and the applicant during prosecution. I have searched the exact term "thigh support adjuster" on Google and found that all hits on the first 5 pages[17] for this term relate to electrical or mechanical car seat adjustment mechanisms, except for one hit that was served relating to the '055 Patent itself, which appears to now be a dead link.[18] In other words, and setting aside hits for the '055 Patent, no hit returned by Google came from the field of soft child carrier products or from the children's products field more broadly.

43. Thus, it is difficult for a POSITA to properly construe the term—this is a term coined by the patentee and which is not explained in the patent, and which does not carry an understood meaning or known structure in the field. Accordingly, there appear to be three possible outcomes for understanding the "thigh support adjuster": first, a POSITA may attempt to assign a plain meaning in accordance with the other requirements of the claim ("First Construction"). Second, upon finding no plain meaning, a POSITA would find the term is indefinite. Third, the term should be construed according to

[17] Only the first five pages of results were reviewed. This statement in no way suggests that the term appears on page 6, or any other page, in relation to child carriers.

[18] https://patentsgazette.uspto.gov/week42/OG/html/1515-3/US11786055-20231017.html (Ex. 1023)

§112(f) as it is a means plus function term ("Third Construction").

Plain Meaning

44. It is my opinion that there is no plain and ordinary meaning for the term thigh support adjuster in light of the patent's disclosures and the knowledge of those of ordinary skill in the art.

45. Examples of characteristics of the "thigh support adjuster" required by the claims are shown below:

- Coupled to both the first thigh support and the second thigh support.[19]
- Configured to be selectively positioned to one of the first setting, the second setting or the third setting to adjust the length of the body to accommodate various sizes of the child as the child ages.[20]
- Adjusts a depth of the bucket seat for the child.[21]
- Positioning at the second setting at least partially obscures the first setting.[22]
- Positioning at the third setting at least partially obscures the second setting.[23]

[19] `055 Patent Claims 1, 6 and 11

[20] `055 Patent Claim 1 (Similar language in claims 6 and 11)

[21] `055 Patent Claims 3, 8 and 12

[22] `055 Patent Claim 16

[23] `055 Patent Claim 18

- Each of the first, second and third settings is a discrete location on the child carrier at which the user selectively positions the at least one thigh support adjuster.[24]
- First, second and third settings/positions are visible to the user for the selective positioning of the at least one thigh support adjuster.[25]

46. I note that none of the requirements for the "thigh support adjuster" recited in the claims—the only location in which this term appears in the '055 patent—pertain to supporting the thighs of the child in the child carrier or adjusting the level of support afforded the thighs of the child.

47. While the `055 Patent specification does not discuss "thigh support adjuster," it discusses "base width adjusters" and "thigh width adjusters" at length.

48. The `055 Patent specification describes the "**thigh width adjusters**" as follows: "each thigh width adjuster 160 includes a strip of material that is fastened at a first end 162 to the outside of a respective thigh support area 140…the thigh width adjuster 160 runs laterally inboard through a fabric tunnel 172 to a distal portion 164 that includes a plurality of spaced thigh width adjuster fasteners 166 (e.g. snaps, buttons, hook and loop, etc.) that can be selectively fastened to a corresponding fastener on a bucket seat portion

[24] `055 Patent Claim 25

[25] `055 Patent Claims 28, 29 and 30

120 of main body 110."[26] Image 4A, reproduced below, shows one of the thigh width adjusters connected to a single thigh support on one end, and having three discrete, spaced, fasteners for attaching the other end to the main body.

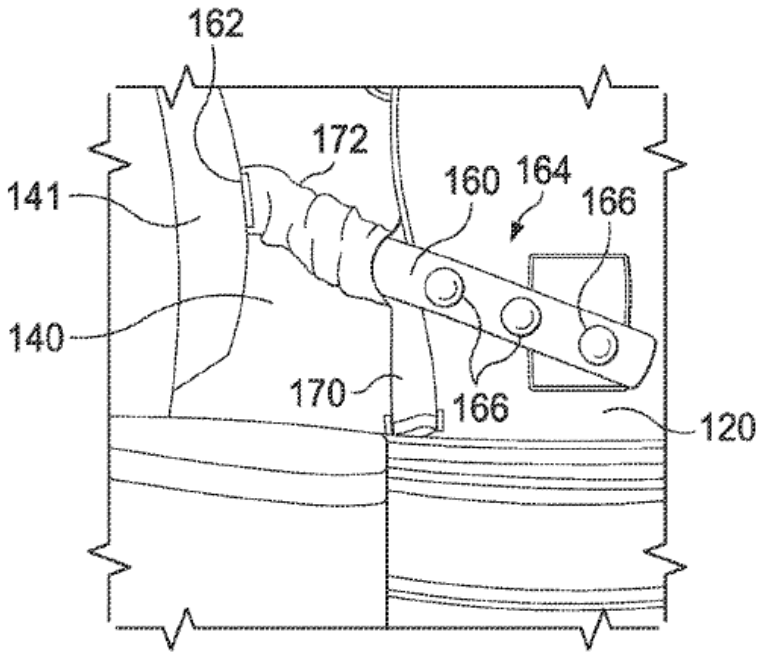


FIG. 4A

49. The patent further teaches that the purpose of the **thigh width adjusters** is to adjust the **width** of the bucket seat. A POSITA would understand that the thigh width adjuster does not satisfy the limitations required of the thigh support adjuster in the claims (e.g., adjusting the depth of the seat via positioning at one or more of settings), and the thigh width adjuster (although similar in name) cannot be the thigh support adjuster recited in the claims.

[26] `055 Patent 11:46-55

50. The patent also describes a pair of "**base width adjusters 150**." The base width adjusters are described as follows: "Inner end portions of thigh support areas 140 can be selectively coupled to waist belt 115 by base width adjusters 150 that are configurable for adjusting the width and depth of bucket seat 125."[27] The patent teaches three settings for the base width adjusters, 154, 156, and 158 (shown in FIGS. 3A, 3B, and 3C below). The patent teaches that "Base width adjusters 150 can be used to adjust the width of the base of main body 110 where it connects to the waist belt 115. A fastening mechanism 151 of base width adjusters 150, such as a hook and loop material, buttons, snaps, zipper, etc., can cooperate with corresponding fasting mechanism 117 on waist belt 115… fastening mechanisms 117, 151 are configured such that the base width adjusters 150 may be coupled to the waist belt 115 in multiple positions or throughout a range of positions."[28]

51. The patent also teaches that the base width adjusters adjust the depth of the bucket seat. The patent clarifies that "referring to FIG. 3A, base width adjusters 150 are fastened to the waist belt 115 such that they are maximally proximate one another toward the center axis of the waist belt 155…This serves to shape bucket seat portion 120 to increase the depth of the bucket seat

[27] `055 Patent 8:15-19 (emphasis added)

[28] `055 Patent 9:7-16

portion… Referring to FIG. 3C, the base width adjusters 150 are secured at positions 158 corresponding to a maximum (or widest) base width setting…serving to minimize the depth of the bucket seat 125"[29]

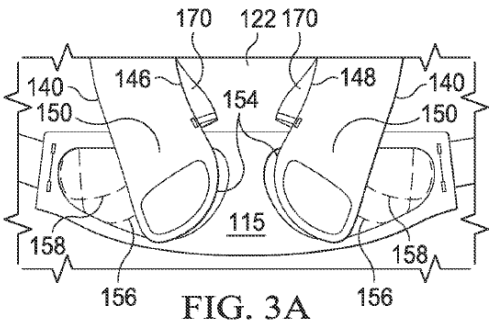


FIG. 3A

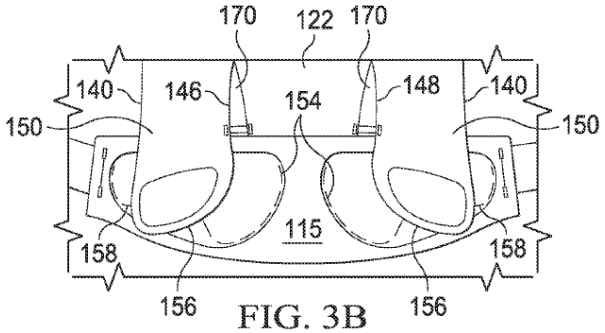


FIG. 3B

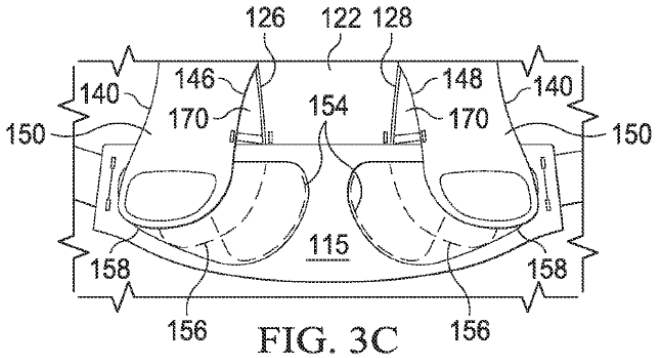


FIG. 3C

52. The patent also teaches that the base width adjusters adjust the length of the body (height 204). The specification further clarifies that "a deeper bucket seat 125 shortens the wearable height 204"[30] and that "because the length of the material of carrier 100 available to support the back depends on the depth of bucket seat 125, adjusting base width adjusters 150 also adjusts the minimum wearable height 204 of carrier 100. As illustrated in FIG. 6, the

[29] `055 Patent 10:44-11:6

[30] `055 Patent 13:62-63

wearable height 204 of carrier 100 increases with decreasing bucket depth."[31]

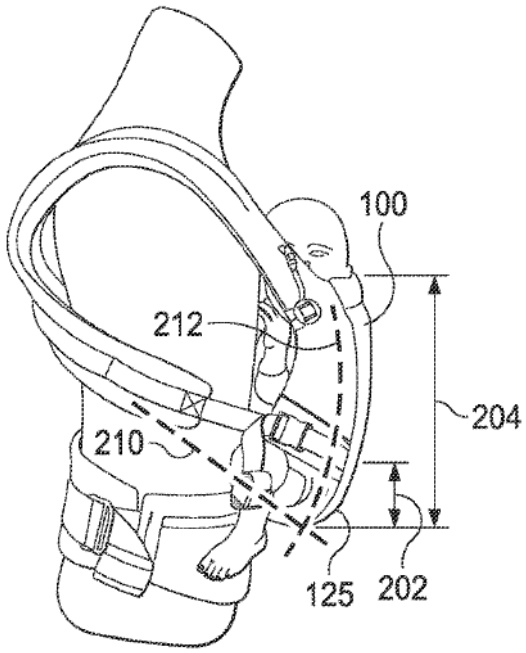


FIG. 6A

53. Thus, the base width adjusters 150 have three settings, adjust the length of the main body, and the depth of the bucket seat. These are all functions that are required of the recited "thigh support adjuster" in the claims of the patent, but they are performed by the pair of base width adjusters. The patent does not identify any single adjuster that can itself perform these functions as the claims recite.

Indefiniteness

54. As noted above, the claims do not require the thigh support adjuster to adjust the thigh support, but rather the thigh support adjuster adjusts the length of

[31] `055 Patent 13:48-54

the carrier and the depth of the bucket seat. It is my understanding that a claim term is indefinite when the boundaries of what is protected are not clearly delineated and the scope of a term is unclear to a POSITA in view of the disclosures of the patent and the knowledge the POSITA would possess as of the priority date of the patent.

55. The term thigh support adjuster does not have particular meaning to a POSITA and does not clearly delineate boundaries of what is protected, unless defined by what it does as opposed to what it is.

56. Thus, it is my opinion that the term "thigh support adjuster" is either indefinite or, in the alternative, a POSITA would understand the term to be a means plus function term.

57. A POSITA is not reasonably apprised of the scope of the "thigh support adjuster" term for several reasons. This is not a term known or used in the art, and it is not a term used in the patent specification or file history. Thus, a POSITA lacks substantial context from which to draw a definite meaning and scope for this term. A POSITA might assume that a thigh support adjuster would adjust the amount of thigh support afforded the child by the separately -recited "thigh supports," but the context of the claim language does not support this assumption—the claims are entirely silent as to whether/how the thigh support adjuster works with the thigh supports to adjust the level of thigh

support for the child. The claims offer some guidance about what the "thigh support adjuster" must **do**—e.g., couple to both thigh supports, adjust seat depth, achieve three different settings/positions—but this context does not provide the POSITA a reasonable idea of what the "thigh support adjuster" **is** from a physical standpoint. The patent never provides any idea about the shape, structure, materials, or the like for this limitation, at all. While such disclosures were made for the pair of "base width adjusters" and the pair of "thigh width adjusters," those sets of adjusters cannot be the same thing, as explained above.

58. While a POSITA might venture to guess that the "thigh support adjuster" is the same or similar to the "base width adjusters" from the specification, the '055 Patent counsels against such a reading. For example, the base width adjusters are taught to operate in conjunction with a waist belt—a carrier element not claimed in any claim of the '055 Patent. Moreover, each of the base width adjusters in the '055 Patent connect individually to a single thigh support. There is no disclosure of a single adjuster of any kind being connected to both thigh supports, which is what the claims require for the recited "thigh support adjuster." Thus, the "thigh support adjuster" from the claims is apparently different in construction and operation from the "base width adjusters" disclosed in the specification. Additionally, a POSITA

would assume that the use of the term "thigh support adjuster" in the claims instead of reciting a pair of "base width adjusters" as disclosed at length in the patent specification, was a deliberate decision to distinguish between these carrier elements, but would be left to wonder how these terms are distinct, particularly with regard to the construction/form of such a carrier element.

59. As a result of the foregoing, it is my primary opinion that a POSITA would not be reasonably apprised of the scope of the "thigh support adjuster" term and would not reasonably understand the metes and bounds of that limitation after reading the intrinsic record of the `055 Patent, and for that reason the term is indefinite.

60. However, inasmuch as a petitioning party gets a single opportunity to file and substantiate an IPR petition, and in the interest of guarding against the Board disagreeing with me on this point, I offer alternative opinions for this term under a means plus function analysis of the term and under a plain-and-ordinary construction of the term. Then I provide grounds for why the claims are unpatentable under each of these alternative constructions.

61. If a POSITA is able to understand a plain and ordinary meaning for the term "thigh support adjuster," it is my opinion that a POSITA would understand the term to mean "a component that can be adjusted to change the length, width, height, location or position of the thigh support" (hereinafter "First

Construction"). The thigh support adjuster would also have to meet the other required limitations in the claims.

§112(f) Means Plus Function

62. It is my understanding that when a term is defined by its function, rather than by recited structure, material or acts, then that term is a means plus function term. A key inquiry is whether a POSITA would understand the term to have sufficiently definite meaning as the name for a known structure, materials or acts or a known category of structures, materials or acts. As the function of the thigh support adjuster is to adjust the length of the body and the depth of the bucket seat, it is my opinion that a POSITA would not understand the name as the meaning for structure, material, or acts. It is my understanding that such means plus function terms cover the structure, material or acts and any equivalents thereof which the patent's specification describes as corresponding to the functions recited in the claims.

63. The term "adjuster" is not a known, structural term in this field. Instead, an "adjuster" would be understood to be a *function* of any structure performing adjustment. The preceding terms "thigh support" do not provide any structure to the term "adjuster" for a few reasons. First, and as already discussed, the '055 patent does not disclose the form or structure of a "thigh support adjuster"—a coined term not known or used in this field and not even recited

in the patent specification. Counterintuitively, the "thigh support adjuster" is not described in the claims as adjusting the thigh supports, but is instead described as adjusting the depth of the seat and the length of the torso support, again without any indication of the structure used to achieve this result.

64. Although the '055 Patent specification discloses a pair of base width adjusters that together perform the functions recited in the claims for the thigh support adjuster, the claims require a single thigh support adjuster to be coupled to both the first thigh support and the second thigh support. There is no disclosure in the `055 specification of a single adjuster of any kind coupled to both thigh supports of the carrier.

65. Accordingly, I am of the opinion that (1) the term "thigh support adjuster" does not recite sufficient structure for performing the functions recited in the claims and (2) there is no corresponding structure in the patent specification correlated with this term. I understand that when the patentee claims something in a means-plus-function format, but fails to provide a correlated disclosure of structure to perform the claimed function(s) in the specification—which is the case here—then the claim is indefinite and invalid under the requirements of §112 of the Patent Act. Accordingly, on this additional basis, my primary opinion is that the recited "thigh support adjuster" is indefinite, because even when construed as a means-plus-function

term, the ’055 patent fails to apprise a POSITA with reasonable clarity of the scope and meaning of the recited thigh support adjuster. This renders all Challenged Claims invalid.

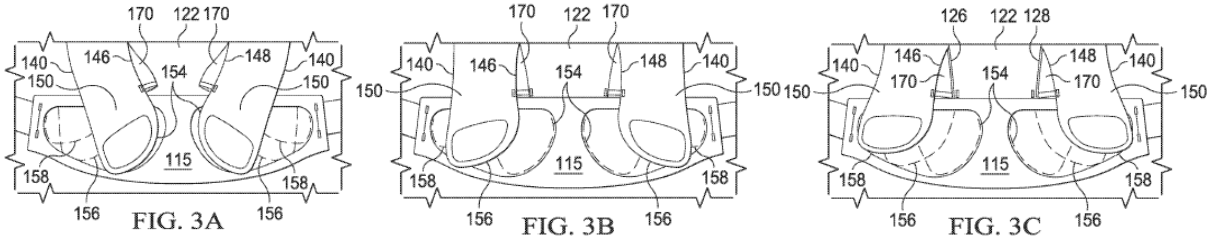
66. To the extent the meaning of “thigh support adjuster” can be determined, a POSITA would understand that the claimed term “thigh support adjuster” is a means plus function term (as explained above), **the function being**: adjusting the height of the main body by lengthening or shortening the depth of the carrier seat. **The only structure** disclosed in the specification that could conceivably be understood to perform these functions is the pair of “base width adjusters 150.” At best, if the “thigh support adjuster” can be reasonably understood by a POSITA, it would be understood as limited to the disclosed structure of the “base width adjusters” and equivalents thereof under §112(f). This means plus function construction will hereinafter be referred to as the “Third Construction.”

67. The base width adjusters are “flaps or tabs coupled to the thigh support areas.”[32] The base width adjusters are each designed to be “selectively coupled to the waist belt” using any of a variety of “fastening mechanism” such as “hook and loop material, buttons, snaps, zipper, etc.”[33] The function

[32] `055 Patent 8:64-67

[33] `055 Patent 9:1-16

of adjusting the length of the body and the depth of the bucket seat is done by moving (e.g., "rotating") the base width adjusters laterally away from or toward each other (e.g., they "essentially rotate from a pivot point as they are adjusted").[34] This rotating adjustment is shown in Figures 3A-3C reproduced below.



68. It is thus clear from the '055 patent that the claimed invention uses two base width adjusters at the waist belt to accomplish the claimed function of adjusting the length of the body. The '055 patent does not describe a single adjuster being used to do so.

69. To the extent a POSITA can understand the term "thigh support adjuster" under means-plus-function construction, it is my opinion that the Challenged Claims would be invalid as obvious under any meaning that could reasonably be ascribed to the term.

2. Bucket Seat

70. The term "bucket seat" is used repeatedly in the specification. The

[34] `055 Patent 9:17 – 11:6

specification describes features and elements to manipulate the bucket seat, changing the width and depth. However, those features are not required for the seat to be a bucket seat. The patent itself does not differentiate between a bucket seat or any other type of seat that might be used in child carriers, or that has previously been used in child carriers. Indeed, a POSITA would recognize that the use of a bucket seat is commonplace in the field of child carriers, and that the alleged invention of the `055 Patent is directed to ways and features to adjusting the bucket seat, not the existence of the bucket seat itself.

71. The plain and ordinary meaning of "bucket seat" is well defined in dictionaries as a seat for one person with a rounded or contoured back. Several dictionary definitions are shown below.

- A low, separate, usually contoured seat for one person.[35]
- A seat with a curved back for one person, especially in a car.[36]
- A seat for one person… which has rounded sides that partly enclose and support the body.[37]
- A form fitting seat for one passenger in automobiles, aircraft and other such modes of transportation.[38]

72. A POSITA would understand that bucket seats are most often discussed in the

[35] https://www.merriam-webster.com/dictionary/bucket%20seat (Ex. 1024)

[36] https://www.oxfordlearnersdictionaries.com/us/definition/english/bucket-seat (Ex. 1025)

[37] https://www.collinsdictionary.com/dictionary/english/bucket-seat (Ex. 1026)

[38] https://en.wiktionary.org/wiki/bucket_seat (Ex. 1027)

automobile industry, where separate front seats that hold one passenger and have curved or contoured backs are called bucket seats. Automobile bucket seats are often contrasted with a bench seat, usually found in the rear of the vehicle, which spans the width of the passenger cabin and is meant for more than one person.[39]

73. A POSITA would understand that the term "bucket seat" as used in the `055 has the plain and ordinary meaning of a seat for one person with a rounded or contoured back.

3. Other Terms

74. It is my opinion that all other terms in the `055 Patent claims would have been provided their plain and ordinary meaning as would have been understood by a POSITA in light of the `055 Patent specification. In rendering my obviousness opinions in this Declaration, I seek to apply either a means-plus-function construction of "thigh support adjuster" or a plain and ordinary construction of this term.[40]

[39] https://www.collinsdictionary.com/dictionary/english/bench-seat (Ex. 1028)

[40] I continue to believe that a POSITA does not know what a plain and ordinary construction of this term is, rendering the "thigh support adjuster" term indefinite and all of the Challenged Claims invalid on that basis. Nevertheless, my obviousness analysis attempts to make plain-and-ordinary sense of this term by ascribing meaning to it dictated by other claim limitations (e.g., coupled to a thigh support, can be positioned in three positions, etc.) and the patent specification. For the reasons discussed above, this term is also indefinite when interpreted as a means plus function limitation.

VIII. Teachings of the Prior Art and Applied References

75. This analysis relies primarily on 8 pieces of prior art as shown in the table below. Each of the prior art references identified herein is from the field of child carrier products and/or is reasonably pertinent to the particular problem with which the inventors were concerned; i.e. "supporting children of various sizes in an ergonomic position appropriate for the child's size."[41]

Reference	Inventor	Publication Date
US 2014/0014692	Marten Andren	16 January 2014
US 2018/0199730	Joran Lundh	17 July 2015
WO 2006/116117	Victoria Staten	2 November 2006
US2008/0190972	Jeanette Edith Gray	14 August 2008
US 4,009,808	Andrea H. Sharp	1 March 1977
AT11620U2	Bettina Stomper-Rosam	15 February 2011
CZ2010531A3	Vera Kalouskova	11 January 2012
Synergy Carrier Owner's Manual	BabyBjorn AB	At least Feb. 2008

76. I also note that, with the exceptions of Lundh and Sharp, none of the above prior art references were before the examiner during the prosecution of the `055 Patent. In addition, there is no indication of any substantive analysis of

[41] `055 Patent Abstract

Lundh, Sharp, or any prior art by the examiner in the prosecution file history because the examiner did not assert any prior art based rejections or provide an explanation of reasons why the claims were believed to be allowable over the prior art.

A. U.S. Patent Publication No. 20140014692A1 to Andren et al. ("the `692 Application")

77. The `692 Application is titled Baby Carrier and was filed on July 9, 2013 and published on January 16, 2014. The `692 Application teaches an adjustable child carrier (shown below) with a shoulder strap arrangement that allows the wearer to transfer the child from front to back carry by rotating the child and carrier combination around the wearer's torso without removing the child from the carrier or removing the child and carrier combination from the wearer.[42]

[42] `692 Patent Abstract

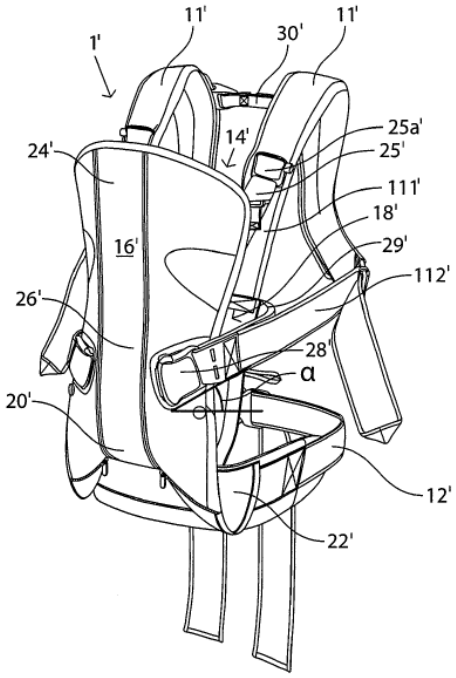


FIG. 2

78. The `692 Application teaches a soft structured child carrier in which a carrier bag or pouch is coupled to chest straps at the top and a waist belt at the bottom. The carrier bag is comprised of a front piece and seat supports on either side of the front piece.[43] In combination, the front piece and shoulder straps form a carrier pouch. Similarly, the lower portion of the front piece and the waist belt form a seat support, which may be adjustable in the height direction[44] such that the depth of the carrier pouch can be adapted to the size of the child.[45] Additionally, the upper portion of the front piece may be folded

[43] `692 Application [0021] – [0022]

[44] `692 Application [0022]

[45] `692 Application [0029]

downward and the seat supports adjusted such that the infant may face away from the wearer.

B. U.S. Patent Publication No. 20180199730A1 to Lundh ("the `730 Application")

79. The `730 Application is titled Baby Carrier and was first published as in international application on 17 July 2015. Two images from the `730 Application are shown below.

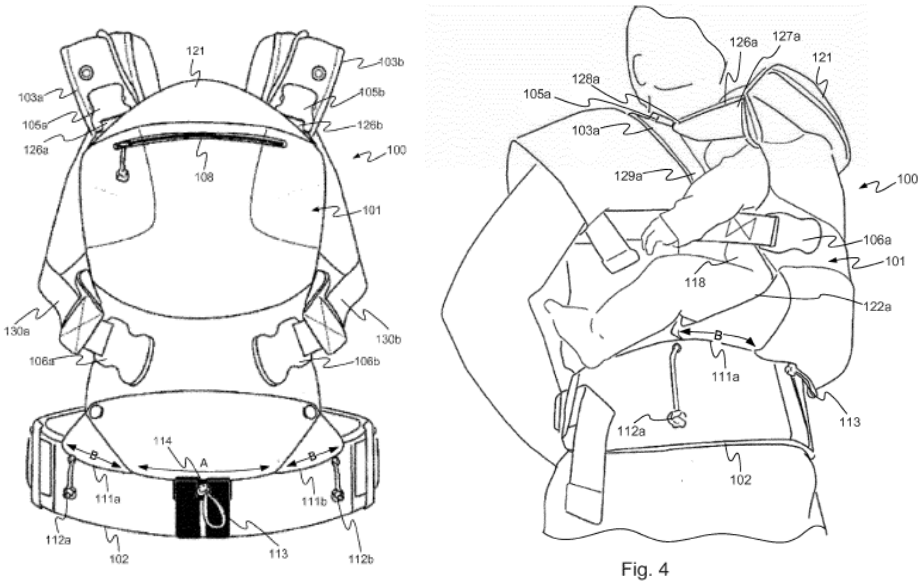


Fig. 4

80. The `730 Application teaches a baby carrier comprised of "a front portion, stomach portion, two shoulder straps, … and a waist strap … The front portion and stomach portion are attached to the waist strap in such a way that the stomach portion and front portion are at least partly detachable from the waist strap."[46] Further, once detached, "[t]he disengaged stomach portion and front

[46] `730 Application Abstract

portion form together support for the carried child's legs. The child is thus sitting in the so-called frog position also when facing forward."[47] The `730 Application teaches that in one embodiment, the means of detaching the front and stomach portions at least partially from the waist strap is one or more zippers.

81. Additionally, `730 Application teaches a bottom portion, which is a piece comprised of a first part that is sewn to the front portion and a second part that is detachably attached to the stomach portion or vice versa. The patent first highlights a hook-and-eye connection as the detachable fastening means of the second part, however goes on to state that, "[a]s alternatives, the attachment could instead comprise buttons, a zipper, Velcro fastener, snap fasteners, press studs, or any other suitable fastening means."[48]

82. This detachable connection of the second part of the bottom portion allows "the height of the bottom portion [to be] changed between two positions … This provides for the adaption of the carrier to suit both smaller children, … as well as larger children …"[49]

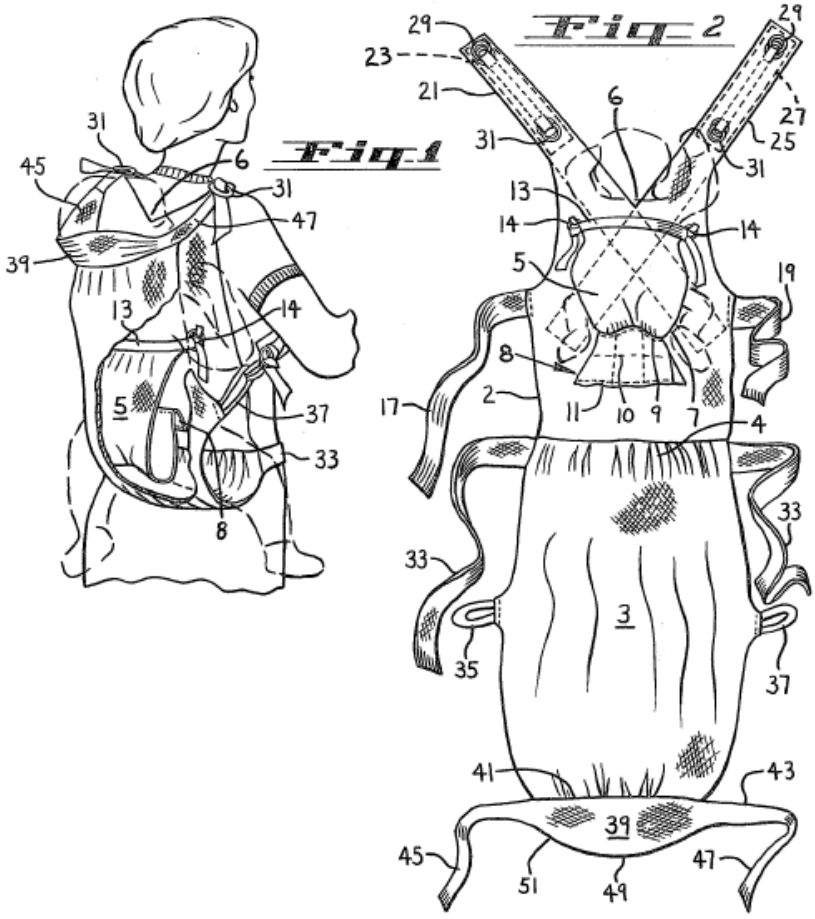
[47] `730 Application pg 3 para 0043

[48] `730 Patent pg 3, para 0041

[49] `730 Patent pg 3 para 0042

C. U.S. Patent No. 4,009,808 to Sharp ("the `808 Patent")

83. The `808 Patent is titled Baby Pack and issued on March 1, 1977. Images from Sharp are shown below.



84. The `808 Patent discloses an adjustable child carrier that "…may be worn on the user's back or … front … [and i]nside the carrier is a seat-member which may be lowered as the baby grows taller so that the child's head is always in a position for proper support."[50]

85. The `808 Patent teaches a child carrier comprised of front member and an

[50] `808 Patent Abstract

adjustable back member that are both sewn to the top of an adjustable waist band. An adjustable head support is disclosed to be fixed to the top of the back member. Additionally, the `808 patent teaches an adjustable inner seat that is fastened to the inside surface of the front member.

86. Of note, the `808 Patent states that, "[a] principle object of the invention is to provide a carrier having an adjustable head support member which provides physical support for the infant's head…"[51], and is accomplished through the adjustment or removal of the inner seat "…to compensate for changes in a child's body size as it grows."[52]

87. The `808 Patent teaches that the inner seat is "…nominally hour glass shaped; being wide at the top and bottom and having a narrow section in the middle. The narrow section and outwardly tapering wide bottom of the [inner] seat are secured to the inside of the front member with a plurality of stitched seams. A support strap is sewn to the upper end of the inner seat. "[53] The `808 Patent teaches that the support strap is adjustably and detachably attached to the front member.

88. The `808 Patent discloses that adjustment of the inner seat is accomplished by

[51] `808 Patent 1:28-30

[52] `808 Patent 1:34-36

[53] `808 Patent 1:68 – 2:6

adjustment of the support strap in combination with progressively removing the stitched seams. The stitched seams are depicted in Figure 2 to be spaced apart in the height direction of the carrier, such that their progressive removal causes the seating position of the child to move downward.[54] Further, as a consequence of the hourglass shape of the inner seat, the `808 Patent teaches that the progressive removal of the stitched seams provides "an increasingly wide portion of the bottom section [to] become[] available to support the child's buttocks and back as the child increases in size."[55]

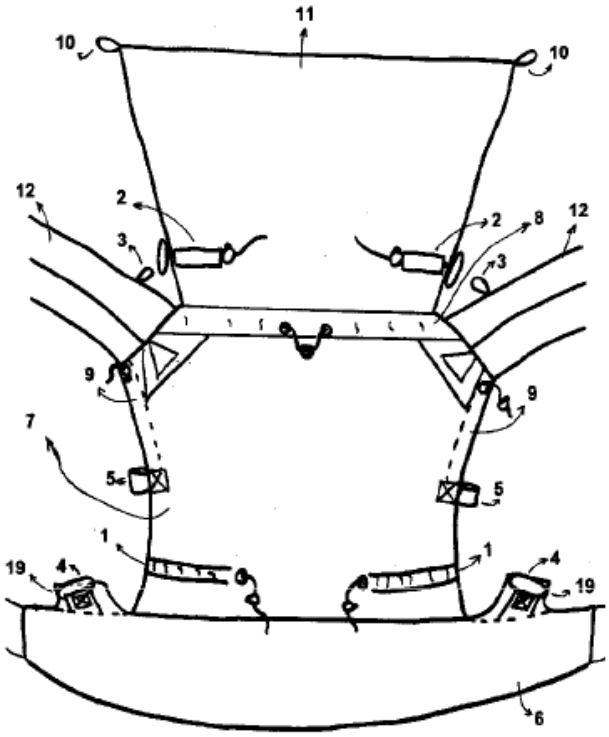
D. Austrian Patent AT 11,620 U2 to Stomper-Rosam ("the `620 Patent")

89. The `620 Patent is titled Ergonomically Adjustable Baby and Toddler Carrier (Ergonomisch Verstellbare Baby- und Kleinkindertrage) and issued February 15, 2011. The `620 Patent teaches "an ergonomically adjustable baby and toddler carrier designed to transport babies and toddlers up to approximately 15 kg in both front and back carrying positions."[56] An image from the `620 Patent is shown below.

[54] `808 Patent 2:65-66

[55] `808 Patent 2:62-65

[56] `620 Patent para 0001



90. The `620 Patent emphasizes the adjustability of the carrier, with particular attention paid to the back panel and the headrest. To accomplish adjustment of the back panel, the `620 Patent discloses a drawstring system that, by the geometric design of the drawstrings, reduces the seat web when tightened. "The carrying device is further characterized by the simultaneous shortening of the back panel 7 when the bridge is reduced, making the carrier adjustable to the size of the child."[57] The `620 Patent teaches that the adjustment in the preferred embodiment is achieved by drawstrings, "however, other fastening systems, such as straps with ladder locks, hook-and-loop fasteners, or snaps

[57] `620 Patent para 0018

could also be used."[58]

91. Additionally, the `620 Patent discloses an adjustable headrest that can be configured to support the infant's head while it sleeps, or fold away such that the child may see out of carrier while awake.[59] The `620 Patent teaches that the geometric relationship between the headrest and the back panel is such that, when the drawstrings are utilized to reduce the seat web and shorten the back panel, ergonomic fitment of the headrest to the child is maintained.[60]

E. U.S. Patent Publication No. 20080190972A1 to Gray ("the `972 Application")

92. The `972 Application is titled Baby Carrier and was published August 14, 2008. An image from the `972 Application is shown below.

[58] `620 Patent para 0017

[59] `620 Patent para 0018

[60] `620 Patent para 0018



93. The `972 Application discloses a soft structured "baby carrier comprising a shoulder harness featuring a detachable adjustable pouch system that may be worn or alternatively fastened to a secured object for supporting an infant."[61] The `972 Application teaches that the shoulder harness and detachable adjustable pouch are separable via a plurality of fastening fixtures. The `972 Application teaches that the detachable adjustable pouch is "generally T-shaped" and comprised of a front, back, side, and seat portions.[62]

94. In one embodiment, a retractable partition is disclosed that "may be extended

[61] `972 Application Abstract

[62] `972 Application pg 2 para 0024

that may be extended and attached to plastic domes in an upper portion of the forked portion or retracted and secured using another set of plastic domes in a lower portion of the forked portion. The retractable partition may allow the pouch to extend to provide more depth in the seat portion that may also allow more leg room for a larger infant."[63]

95. In another embodiment, the `972 Application teaches a "retractable drawstring system which may further comprise retractable drawstrings that may subsequently be disposed within channels that form a generally V-shaped configuration…"[64] and meet at a mutual pull tab. When the pull tab is extended or retracted, the generally V-shaped channels work in concert with the drawstrings and side portion adjustment straps "to provide more or less depth [of the seat portion of the adjustable pouch] for the infant."[65] The retractable drawstring system may be fixtured in its extended or retracted configuration, or anywhere in between, using a self-adhesive material like Velcro.[66]

[63] `972 Application pg 2 para 0024

[64] `972 Application pg 3 para 0026

[65] `972 Application pg 1 para 0006

[66] `972 Application pg 3 para 0026

F. PCT Application Publication No. WO 2006116117A2 to Staten ("the `117 Application")

96. The `117 Application is titled A Harness and was published November 2, 2006. The `117 Application discloses a harness-type baby carrier that is a modular combination of a baby carrier, a diaper bag, and harness that are detachably coupled together.[67] An image from the `117 Application is shown below.

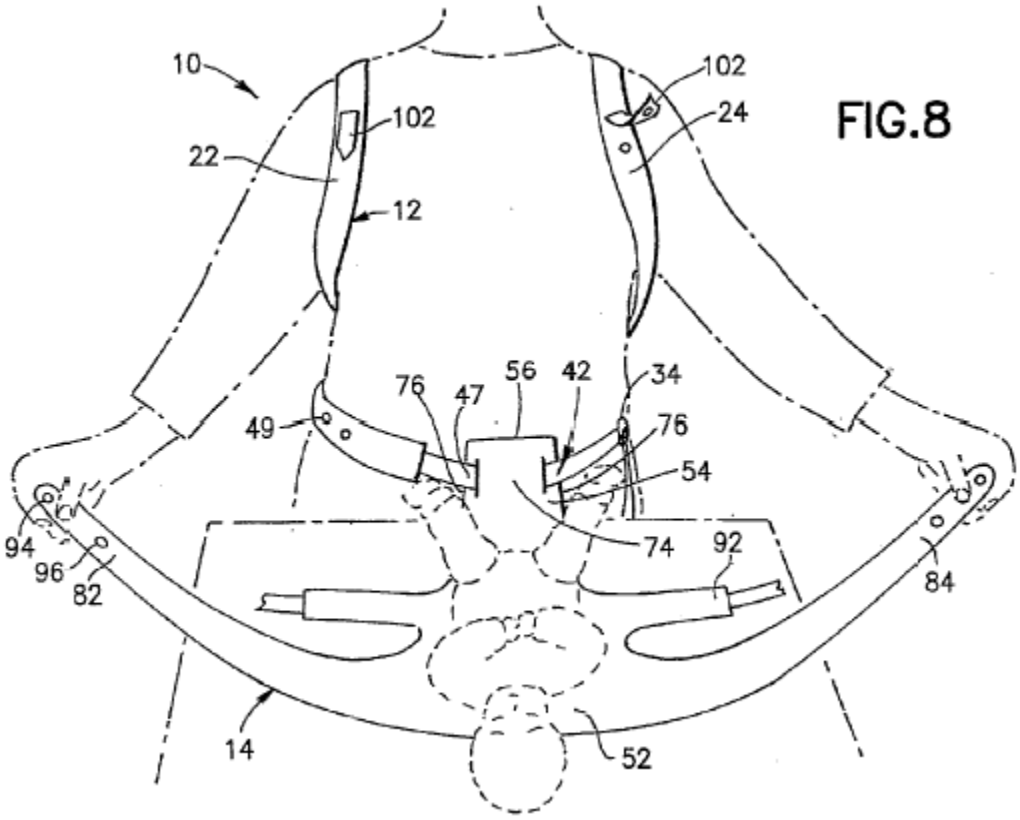


FIG.8

97. Further, the `117 Application teaches that the modular components of the baby carrier system "have respective adjusting assemblies including a

[67] `117 Application "Field of the Invention"

plurality of D-rings, O-rings, buckles, snap-type connections and other fastening configurations … [that are] strategically located … to allow the wearer to adjustably couple the unit's components together."[68]

98. The `117 Application teaches that the baby carrier component of the system includes the shell, top region, and bottom region that comprise the adjustable infant support. "[The] shell has numerous fastening and adjusting assemblies operative to controllably vary the length between a top region and a bottom region of [the] shell in accordance with … the physical attributes of the infant…"[69] The `117 Application discloses that the adjustment of the length between the top and bottom regions is accomplished via various methods of attaching the harness to the shell at various discrete locations along the bottom region of the shell. The `117 Application teaches that "[a]djusting the distance between [the top and bottom regions] allows the wearer to set the desired position of the infant…"[70] When configured, the bottom region of the shell assumes a generally U-shaped or J-shaped cross-section that creates a seat to support the infant.[71]

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[68] `117 application pg 4 para 3

[69] `117 application pg 9 para 2

[70] `117 application pg 9 para 3

[71] `117 Application Pg. 10, para 3

G. Baby Bjorn Synergy Carrier Owner's Manual ("the Synergy Manual")

99. The Synergy Manual (Article No.: 250) was published in February of 2008.[72] The Synergy Manual teaches a soft structured baby carrier comprising straps and a front piece. An image from the manual is shown below:



100. The straps are worn by the wearer and have a plurality of adjustments and detachable fasteners. The front piece carries the child and comprises a piece of fabric with a head support, detachable fasteners, and a sliding buckle at the lower portion. The shape of the front piece and the geometric layout of the

[72] See Ex. 1017.

detachable fasteners on both the strap and front piece are such that when the front piece is connected to the straps, the front piece forms a seat, or pouch, for the child to be to be carried in.

101. The Synergy Manual teaches that the front piece is equipped with an adjustment label that directs the wearer to adjust the sliding buckle according to the child's height.[73] This sliding buckle adjustment varies the depth of the seat, or pouch created when the front piece is connected to the straps on the wearer. A second consequence of adjusting the sliding buckle according to the child's height is that a proper relationship is maintained between the child's head and the head support of the front piece.

H. Czech Republic Patent CZ2010531A to Kalouskova ("the `531 Patent")

102. The `531 Patent is titled Child Carrier, was filed 2 July 2010 and issued 11 January 2012. The `531 Patent teaches an adjustable child carrier with a back support, head rest, hip belt, shoulder straps and safety components that can be press buttons, buttons, clips, etc.[74] Figure 1 from the `531 Patent is reproduced below.

[73] Synergy Manual step 2

[74] `531 Patent at Abstract

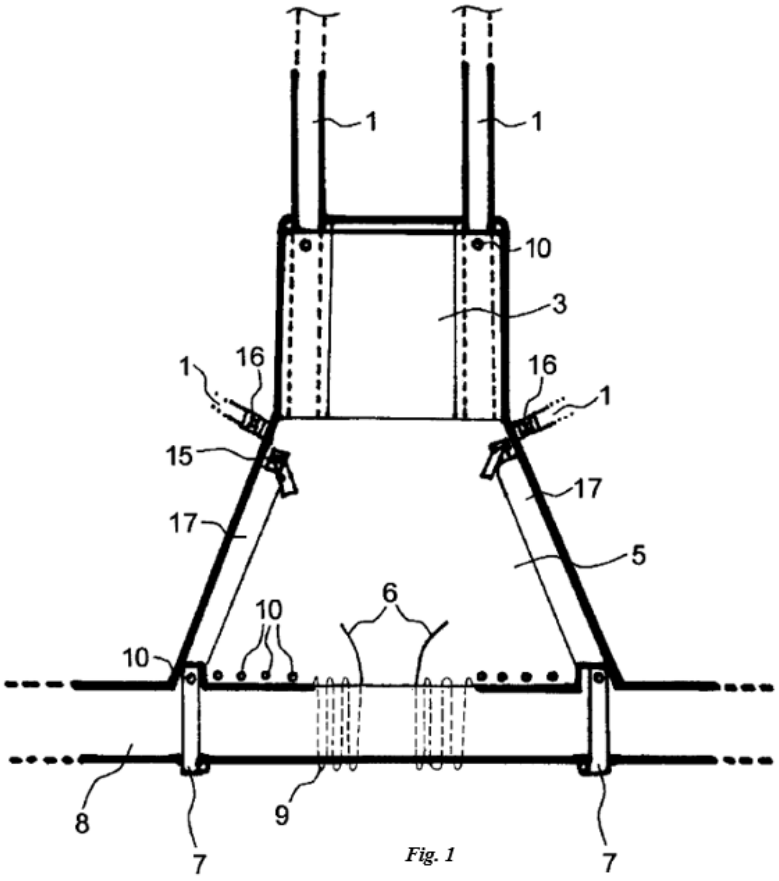


Fig. 1

103. The `531 Patent further teaches: "Child care specialists emphasize correct positioning of small children when carried in carriers. They emphasize the need to support the entire length of the back and head and sufficient support of the legs, which should be bent and the fabric should reach from one knee to the other. At present, a range of fabric child carriers is available from birth to approximately three years of age. However, these carriers do not take into account the child's growth or consider it only in a limited manner… Therefore, the aim of the invention is to execute a child carrier that would allow problem-free regulation of the carrier size, thus developing a carrier that

can be regulated based on the child's growth."[75]

104. The `531 teaches Patent that the it is possible to make the back support wider or narrower and to fix it in position with press buttons, according to the growth and needs of the child.

105. The `531 Patent further teaches that the height of the back support can be adjusted with fastening straps and fastening clips.

I. Known Techniques, Elements and Methods for Adjusting Components of Child Carriers

106. As shown above, there are many components that are known to a POSITA that can be used to make adjustments to various features of child carriers. Well known components include at least:[76]

- Drawstrings
- Cords
- Belt Straps
- Ladder Buckles
- Velcro
- D-rings
- O-rings
- Buckles
- Snaps
- Buttons
- Press Studs
- Zippers

[75] `531 Patent Pg. 1

[76] `117 Application Pg. 4, Par 3, 620 Patent Par. 0017, `730 Patent pg 3, para 0041

107. A POSITA would further understand that the above components are interchangeable and their incorporation is a design choice made by the designer. Any and all of these components can, are and have been successfully implemented by those of ordinary skill in the art, with every expectation of success.

108. It is also noted that some components offer continuous adjustment, while others offer discrete adjustment intervals. For example, Velcro (a brand name for a hook and loop fastener system) is continuously adjustable to the extent one side is larger than the other. It is common for the loop side (the soft side) to be larger and the hook side (the rough or abrasive side) to be smaller, with the smaller side being able to be placed at any point along the length or height of the loop side. Buttons or snaps, on the other hand, have discrete adjustments. The button must have a hole to mate with, and the top part of a snap must connect to a bottom part of a snap to function. These are commonly placed at discrete intervals to allow adjustments. It is well within the skill of a POSITA to utilize and implement either a discrete or a continuous fastening system, doing so is nothing more than a design choice and would have every expectation of success. Substituting one for the other does not involve an inventive step.

J. Folding Neck Supports

109. Folding neck supports that change the height of the body are also common and well known in the art. It is well within the skill of a POSITA to implement a folding neck support according to known techniques and methods on a child carrier. This is shown repeatedly throughout the prior art, and implementing a folding neck support does not involve an inventive step. The decision to implement a folding neck support is nothing more than a design choice. Several examples from the prior art are shown below.

The `730 Application to Lundh

110. The `730 Application discloses a neck support that folds down to the outside. The `730 Application describes that "the front portion 101 is foldable into at least two positions... In the first folded position, the upper part 121 is partly lowered such that the child's head becomes more free… the upper part 121 is shown in FIG. 7, in which it is completely folded down, allowing a child placed in a forward facing position to have the face free."[77]

[77] `730 Application [0039]

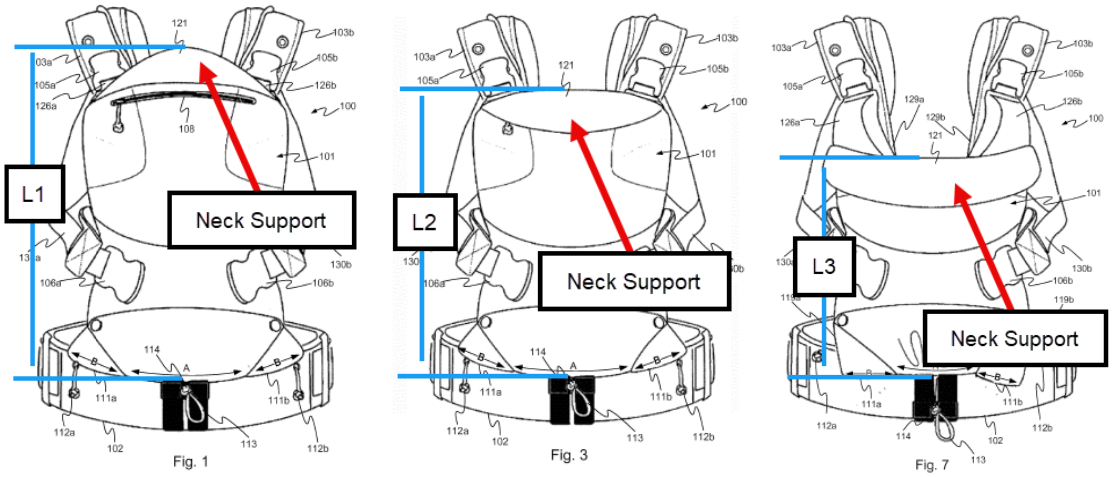


Fig. 1 Fig. 3 Fig. 7

111. Each time the neck support is folded outward, the length of the carrier decreases.

Baby Bjorn Synergy Carrier Owner's Manual

112. The Synergy Manual also teaches folding a neck support outward to decrease the length of the carrier as shown below.



113. The Synergy Manual states: "Place your child in the baby carrier facing outwards. Fold the head support down. Fasten the head support buckle above the child's shoulders on either side… The head support buckles will now be reversed compared with when the child is facing you."

114. As can be seen in the photos above, folding the neck/head support down decreases the length of the carrier.

U.S. Patent No. 7,494,031

115. U.S. Patent No. 7,494,031 also discloses a neck support folded to the outside to decrease the length of the body. This is shown in figures 9 and 10 from the patent reproduced below.

116. "FIG. 9 shows a vertically holding and face-to-face manner in the state where a mother faces a baby or infant. FIG. 10 shows a state where the head supporter 4 is folded over from the state shown in FIG. 9."[78]

[78] `031 Patent 3:62-66

FIG. 9

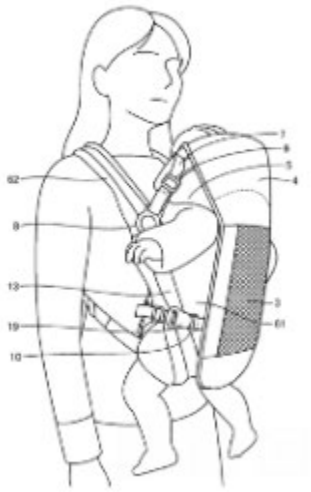
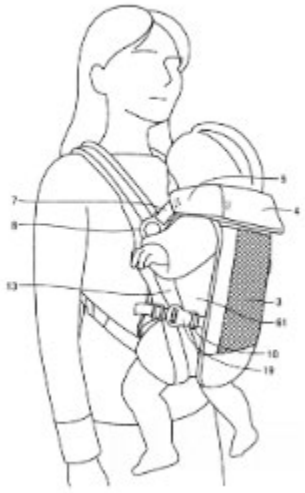
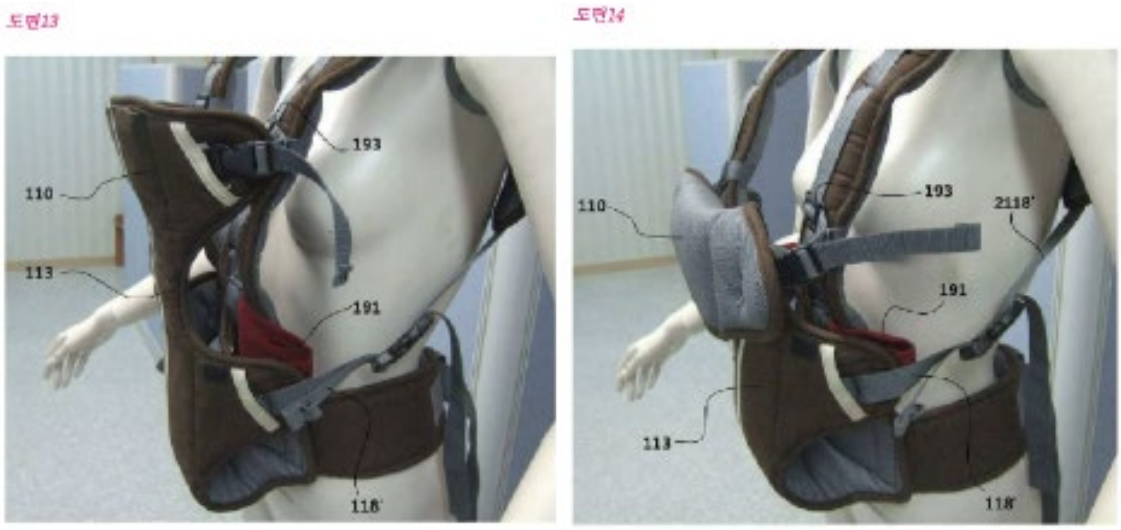


FIG. 10



Korean Publication No. KR20120032800A

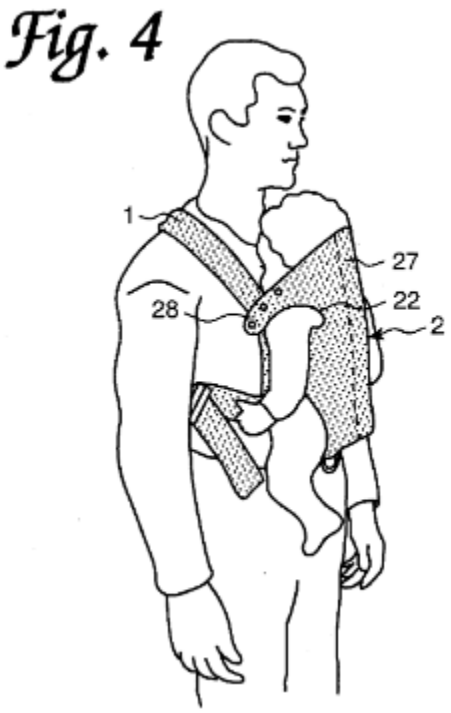
117. In another example, Korean Publication No KR20120032800 discloses folding the neck support outward and down, decreasing the height of the body. The change in height due to the outward folding is visible in the photographs from the publication reproduced below. A machine translation of the publication states: "In addition, the neck support can be easily folded and unfolded to add convenience and safety in supporting the neck and head of a weak infant, and at the same time, the effect of securing a space in which the infant can move his arm more freely is obtained."



U.S. Patent No. 5,490,620

118. In yet another example, U.S. Patent No. 5,490,620 discloses a neck support folded downward and outward, decreasing the length of the body. The patent states: "Thus, in one configuration of the inventive harness, one of the fastener devices 23 can be connected to the fastener device 12 so as to stabilize the neck-support part 27 through connection with the looped straps 1. In another configuration, used when the child is placed in the harness in a forward-facing position, as illustrated in FIG. 5, the neck-support part 27 can be folded down onto the lower part of the supporting flap 2 about a line which connects the side recesses 22, wherein the press-stud devices 24 are fastened to the press-stud devices 12, so as to hold the part 27 in its downwardly-folded position."[79]

[79] `620 Patent 3:54-64





119. Clearly, neck supports that fold down and out, decreasing the length of the carrier were well known in the prior art, and designing and implementing a folding neck support is well within the knowledge of a POSITA, and could be done using known methods, techniques and elements with every expectation of success.

K. Spread-Squat Position

120. It was well known to a POSITA to support a child in a spread squat position to promote natural hip development. As early as 2014, the International Hip Dysplasia Institute taught that "The healthiest position for the hips is for the hips to fall or spread (naturally) apart to the side, with the thighs supported and the hips and knees bent. This position has been called the jockey position,

straddle position, frog position, spread-squat position or human position."[80] Notably, the recommendations of the International Hip Dysplasia Institute were specifically with regard to how a baby should be positioned in car seat, a carrier, or the like, such as a baby harness or a baby sling. Additionally, the `730 Application describes how the spread-squat position can be achieved in a carrier by incorporating sufficient material to support a child's legs in this position.[81] Clearly, before the priority date of the `055 Patent, a POSITA would have known to position a child in the spread-squat position, and the `730 Application demonstrates that a POSITA would have known how to achieve this position in a child carrier.

L. Motivations to Combine and Expectation of Success.

121. In a simple, mechanical field such as this, it would be understood that a discrete feature appearing in a first disclosure could ordinarily be added to a separate reference or product lacking that same feature, and that making such a combination would yield the benefit of the feature as found in the first reference. For example, it would be understood that one could add a foldable neck support (as discussed in the preceding section) to a carrier lacking that same feature merely by, for example, sewing an adjustable neck support panel

[80] https://web.archive.org/web/20140208144252/http:/hipdysplasia.org/developmental-dysplasia-of-the-hip/prevention/baby-carriers-seats-and-other-equipment/ (Ex. 1012)

[81] `730 Application para [0016].

and by affixing attachment points for two desired positions (e.g., support and folded-down). In attempting such a combination, a POSITA would have a high expectation of success, and little concern for unanticipated outcomes—one is merely adding or modifying fabric and mechanical means to govern the location of such fabric during use. The same analysis and conclusions apply to other discrete teachings appearing in the references at issue in this petition and in my declaration—a POSITA would know that it could mix-and-match the discrete features of one reference (e.g., adjustable thigh support, increasing the depth of a seat and/or length of a torso support) with another, additively achieving the discrete benefits of those features when they are added to another reference or product. The act of incorporating discrete features in one reference with another would ordinarily require nothing more than cutting material to size, sewing it to the carrier, and affixing adjustment means (e.g., Velcro, zippers, buttons) to allow for adjustment of the newly-added carrier feature, and for this reason be reasonably expected to be a successful combination.

IX. Ground 1: Claims 1-15, 19-24 and 28-30 are Anticipated by the Synergy Manual and/or Obvious Over the Synergy Manul in View of the Knowledge of a Person of Ordinary Skill and/or the `730 Application

122. It is my opinion that claims 1-15, 19-24 and 27-30 of the `055 Patent are anticipated by the Synergy Manual and/or obvious over the Synergy Manual

in view of the knowledge of a person of ordinary skill and/or in further view of the `730 Application. Appendix E is a claim chart detailing my anticipation and obviousness analysis, which applies the First Construction for the term "thigh support adjuster" and compares the prior art to the claim elements, and describes the teachings, suggestions and motivations to combine the references. While not necessary to prove obviousness over the Synergy Manual, a person of skill in the art would understand that both the `730 Application and the `972 Application teach at least one thigh support adjuster, and the features of these prior art references could easily be combined with the teachings of the other prior art references discussed herein.

X. Ground 2: Claims 1-15, 19-24 and 28-30 are Anticipated by the `117 Application and/or Obvious Over the `117 Application in View of the Knowledge of a Person of Ordinary Skill and/or the `730 Application

123. It is my opinion that claims 1-15, 19-24 and 27-30 of the `055 Patent are anticipating by the `117 Application and/or obvious over the `117 Application in view of the knowledge of a person of ordinary skill and/or in further view of the `730 Application. Appendix D is a claim chart detailing my anticipation and obviousness analysis, which applies the First Construction for the term "thigh support adjuster" and compares the prior art to the claim elements, and describes the teachings, suggestions and motivations to combine the references. While Appendix D includes analysis of the `730

Application in relation to "at least one thigh support adjuster," this feature is also disclosed in the `972 Application, as discussed at Appendix F, and a person skilled in the art would understand that the teachings of either the `730 Application or the `972 Application can be applied to add a thigh support adjuster to any of the primary references discussed in this Declaration.

XI. Ground 3: Claims 1-15, 19-24 and 28-30 are Anticipated by the `620 Patent and/or Obvious Over the `620 Patent in View of the Knowledge of a Person of Ordinary Skill and/or the `972 Application

124. It is my opinion that claims 1-15, 19-24 and 27-30 of the `055 Patent are anticipated by the `620 Application and/or obvious over the `620 Application in view of the knowledge of a person of ordinary skill and/or in further of the `972 Application. Appendix F is a claim chart detailing my anticipation and obviousness analysis, which applies either the First Construction or the Third Construction for the term "thigh support adjuster" and compares the prior art to the claim elements, and describes the teachings, suggestions and motivations to combine the references. While Appendix F includes analysis of the `972 Application in relation to "at least one thigh support adjuster," this feature is also disclosed in the `730 Application, as discussed at Appendix A-D, and a person skilled in the art would understand that the teachings of either the `730 Application or the `972 Application can be applied to add a thigh support adjuster to any of the primary references discussed in this Declaration.

XII. Ground 4: Claims 1-15, 19-24 and 28-30 are Anticipated by the `692 Application and/or Obvious Over the `692 Application in View of the Knowledge of a Person of Ordinary Skill and/or the `730 Application

125. It is my opinion that claims 1-15, 19-24 and 27-30 of the `055 Patent are anticipated by the `692 Application and/or obvious over the `692 Application in view of the knowledge of a person of ordinary skill, and/or in further view of the `730 Application. Appendix A is a claim chart detailing my anticipating and obviousness analysis, which applies the First Construction for the term "thigh support adjuster" and compares the prior art to the claim elements, and describes the teachings, suggestions and motivations to combine the references. While Appendix A includes analysis of the `730 Application in relation to "at least one thigh support adjuster," this feature is also disclosed in the `972 Application, as discussed at Appendix F, and a person skilled in the art would understand that the teachings of either the `730 Application or the `972 Application can be applied to add a thigh support adjuster to any of the primary references discussed in this Declaration.

XIII. Ground 5: Claims 1-15, 19-24 and 28-30 are Anticipated by the `808 Patent and/or Obvious Over `808 Patent in View of the Knowledge of a Person of Ordinary Skill and/or `730 Application

126. It is my opinion that claims 1-15, 19-24 and 27-30 of the `055 Patent are anticipated by the `808 Patent or obvious over the `808 Patent in view of the knowledge of a person of ordinary skill and/or in further view of the `730

Application. Appendix B is a claim chart detailing my anticipation and obviousness analysis, which applies the First Construction for the term "thigh support adjuster" and compares the prior art to the claim elements, and describes the teachings, suggestions and motivations to combine the references. While Appendix B includes analysis of the `730 Application in relation to "at least one thigh support adjuster," this feature is also disclosed in the `972 Application, as discussed at Appendix F, and a person skilled in the art would understand that the teachings of either the `730 Application or the `972 Application can be applied to add a thigh support adjuster to any of the primary references discussed in this Declaration.

XIV. Ground 6: Claims 1-15, 19-24 and 28-30 are Anticipated by the `531 Patent and/or Obvious over the `531 Patent in View of the Knowledge of a Person of Ordinary Skill and/or the `730 Application

127. It is my opinion that claims 1-15, 19-24 and 27-30 of the `055 Patent are anticipated by the `531 Patent and/or obvious over the `531 Patent in view of the knowledge of a person of ordinary skill and/or in further view of the `730 Application. Appendix C is a claim chart detailing my anticipation and obviousness analysis, which applies either the First Construction or the Third Construction for the term "thigh support adjuster" and compares the prior art to the claim elements, and describes the teachings, suggestions and motivations to combine the references. While Appendix C includes analysis

of the `730 Application in relation to "at least one thigh support adjuster," this feature is also disclosed in the `972 Application, as discussed at Appendix F, and a person skilled in the art would understand that the teachings of either the `730 Application or the `972 Application can be applied to add a thigh support adjuster to any of the primary references discussed in this Declaration.

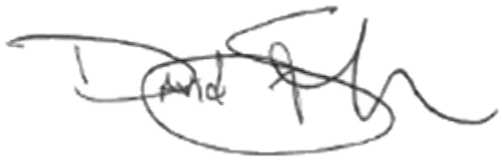
XV. Conclusion

In signing this declaration, I recognize that the declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

128. I hereby 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 so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

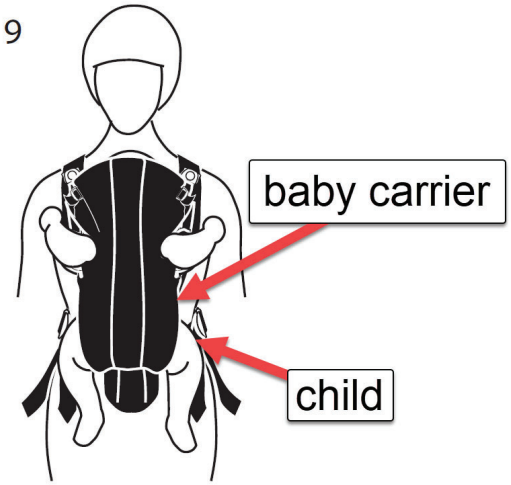
Executed this 28th day of October, 2024.

Respectfully submitted,



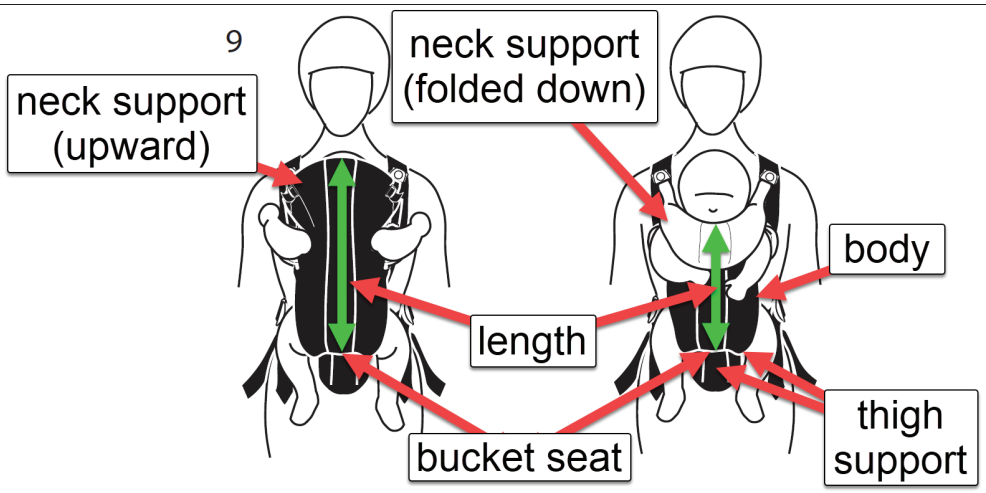
_____
David Smith
MS, MBA, P.E., CSP

APPENDIX A

<table>
<tr><th colspan="2">Anticipation and/or obviousness of Claim 1 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art</th></tr>
<tr><th>Claim Element</th><th>Does the Prior Art have the Element?</th></tr>
<tr><td colspan="2">


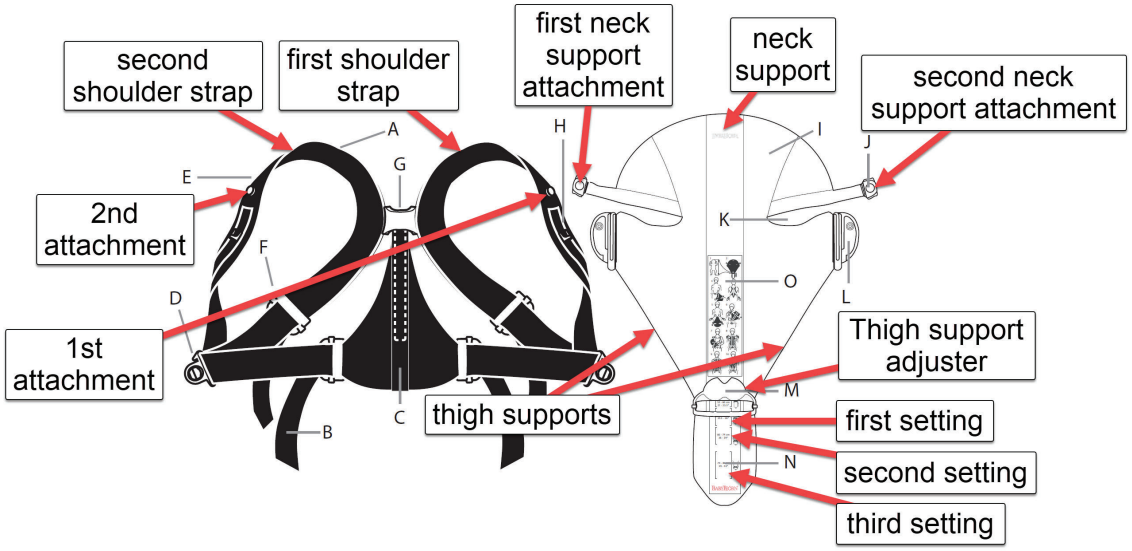
“For use with newborn babies
…
2. <u>Adjust the position of the sliding buckle to your child's height.</u> Follow the directions on the on the adjustment label to ensure that the child is safe and comfortable in the carrier.
…
4. <u>Adjust the straps and lumbar support</u> so that the latter is in the designated position and all the settings feel comfortable…
5. <u>Adjust the straps so that the baby carrier is comfortable.</u> Wear it close to your body (see diagram). (These are the straps with the triangular edge found above the lower back support straps.) …”

As shown above, Synergy discloses a baby carrier that is configured to support a child and is adjustable.
</td></tr>
<tr><td>1pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising</td><td>Yes. Synergy discloses an adjustable child carrier for supporting a child by a user.</td></tr>
</table>



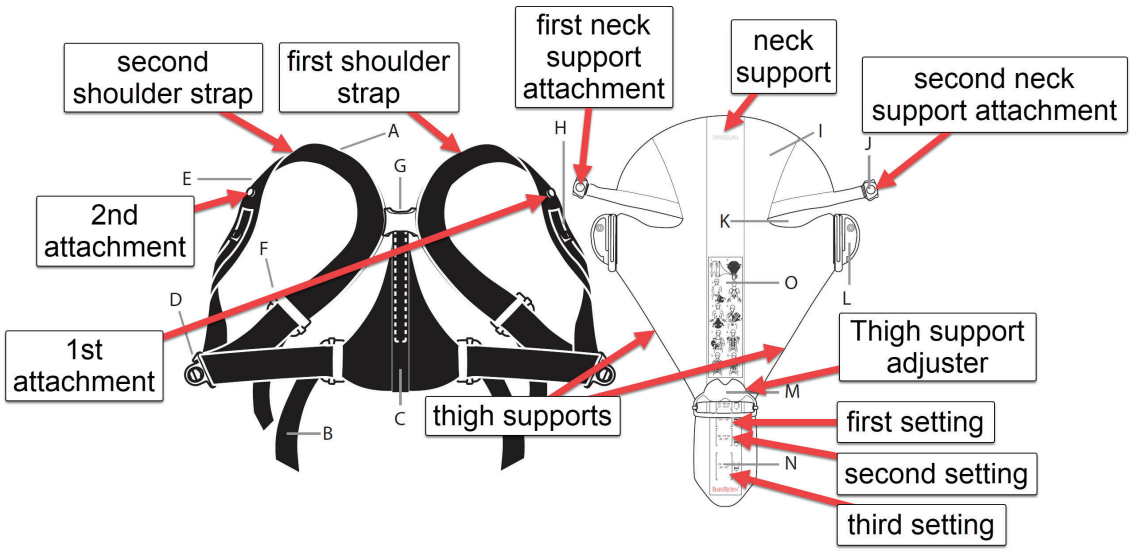
Synergy is an adjustable child carrier including a front piece (i.e., a **"body"**) that forms a seat for a child. The seat forms a recessed area or compartment (i.e., a **"bucket seat"**) to receive the child's buttocks and at least a portion of the legs, such as to support at least the legs of the child when seated.

1a – a body configured to support the child, **1b** – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** Synergy discloses a body configured to support the child. Further, Synergy discloses that the body forms a bucket seat, which is configured to support the legs of the child.



Synergy includes a "head support" I for supporting the head and neck of the child (i.e., a **"neck support"**). The head support I includes a pair of "head support buckles" J (i.e., a **"first neck support attachment"** and a **"second neck support attachment"**) for connection to "head support knobs" E.

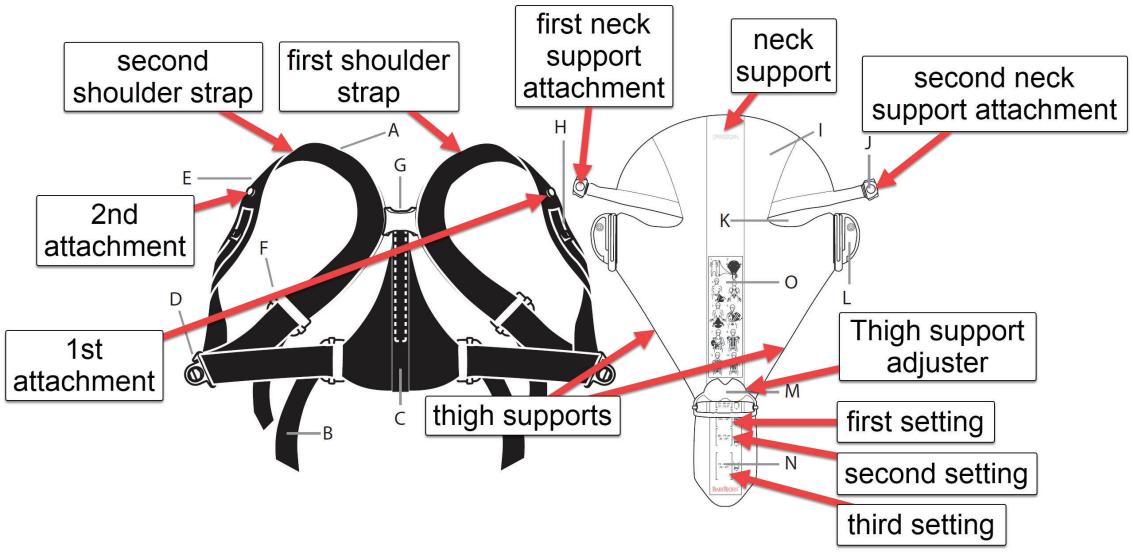
1c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** Synergy discloses a neck support comprising a first neck support attachment and a second neck support attachment.



Synergy includes a pair of "straps" A for extending over the left and right shoulders of the user (i.e., a **"first shoulder strap"** and a **"second shoulder strap"**). The shoulder straps A are coupled to the front piece via "sliding buckle clip" D.

E.g., page 2: "3. Fasten the carrier's front piece to the straps by inserting the straps' sliding buckle clips into the sliding buckle on the front piece."

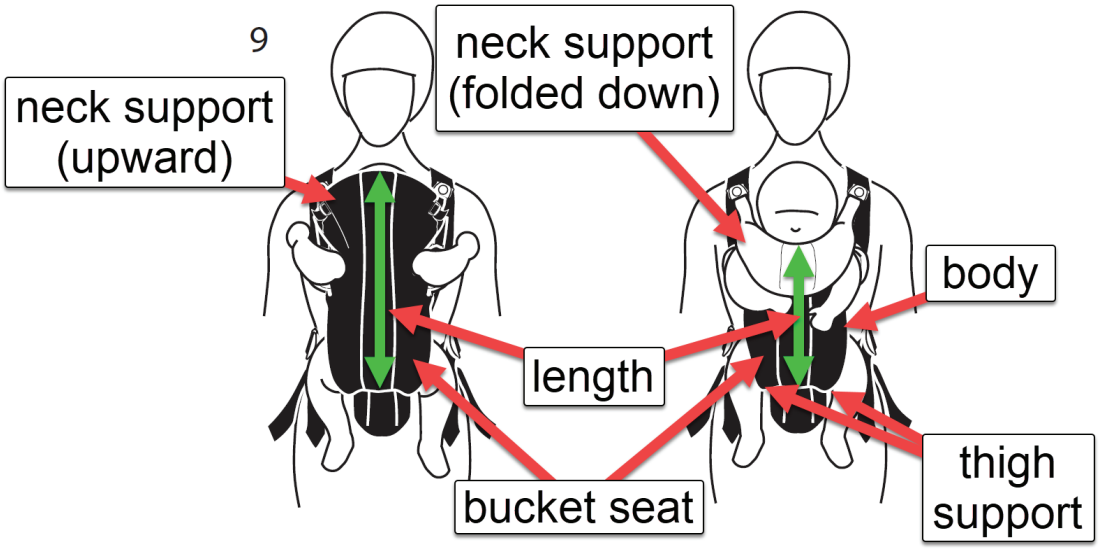
1d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user; **1e** – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** Synergy discloses a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user. Synergy further discloses a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user.



Synergy includes a pair of "head support knobs" E (i.e., a **"first attachment"** and a **"second attachment"**) disposed on the shoulder straps A to receive the head support buckles J.

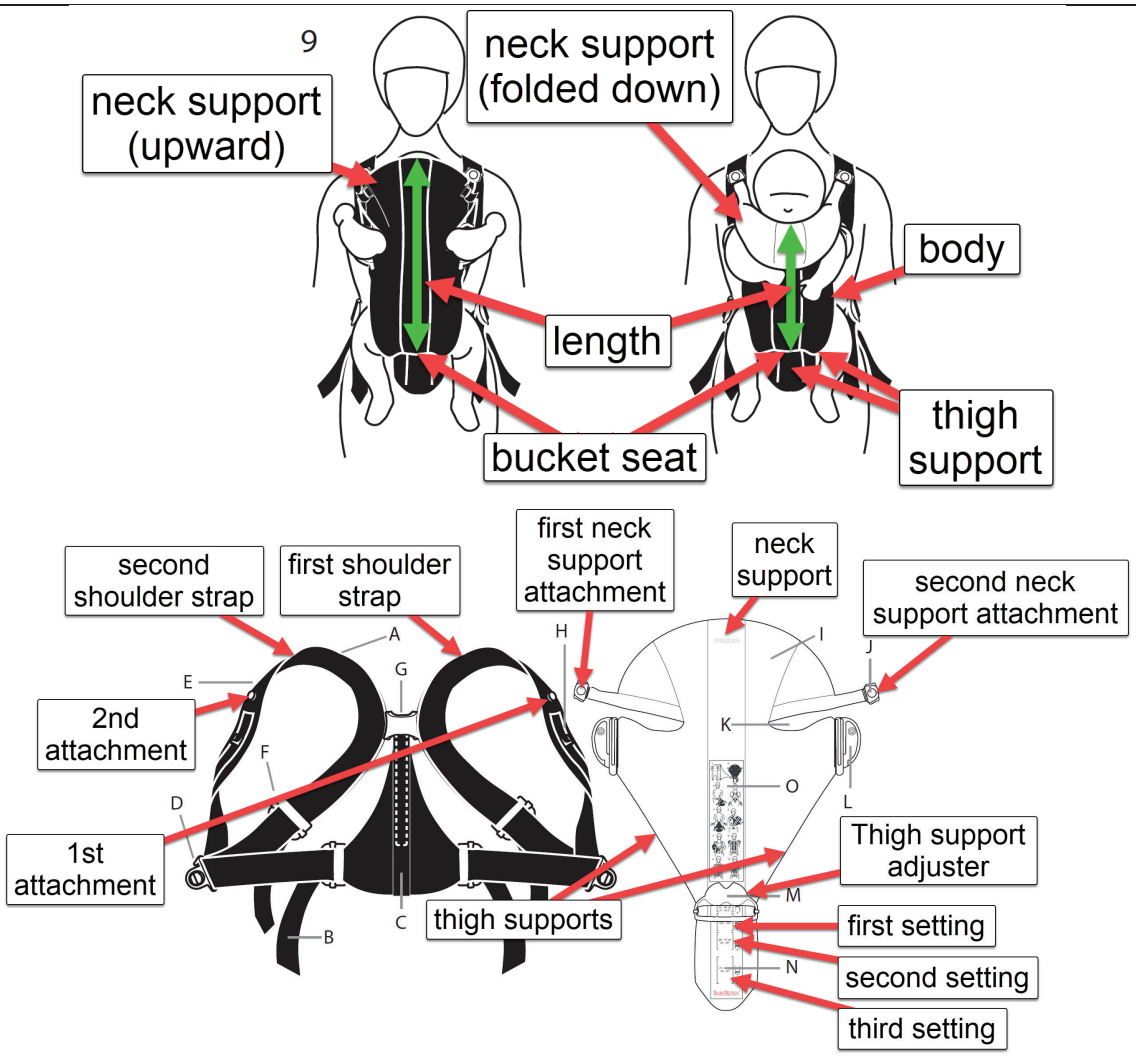
E.g., page 3: "8-9. **Fasten the head support buckles** above the child's shoulders. Place your thumb behind one of the head support knobs on the straps and press it onto the head support buckle until it clicks. **Repeat on the opposite side**."(emphasis added).

1f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment; **1g** – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment	**Yes.** Synergy discloses a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment. Synergy further discloses a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment.

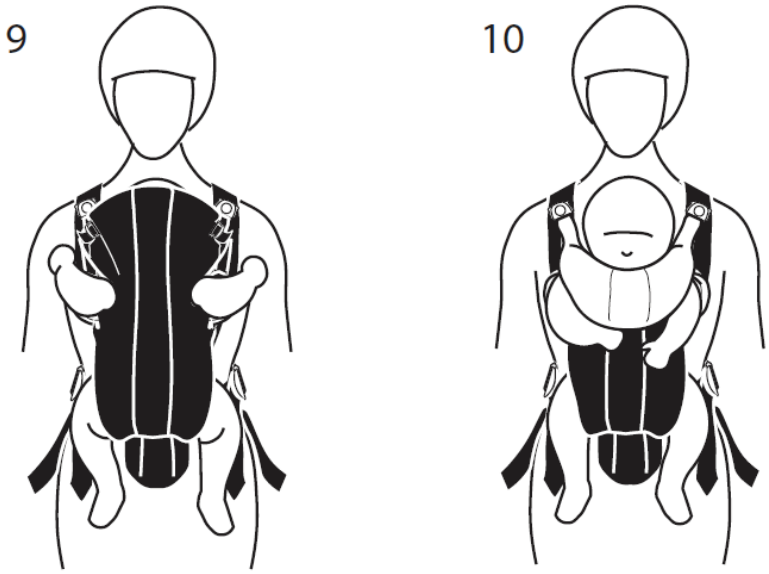


When coupled to the shoulder straps, the neck support is configured, in one example, in an upward position for supporting the child's neck (i.e., **"an upward neck supporting position"**).

1h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** Synergy discloses that the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment.

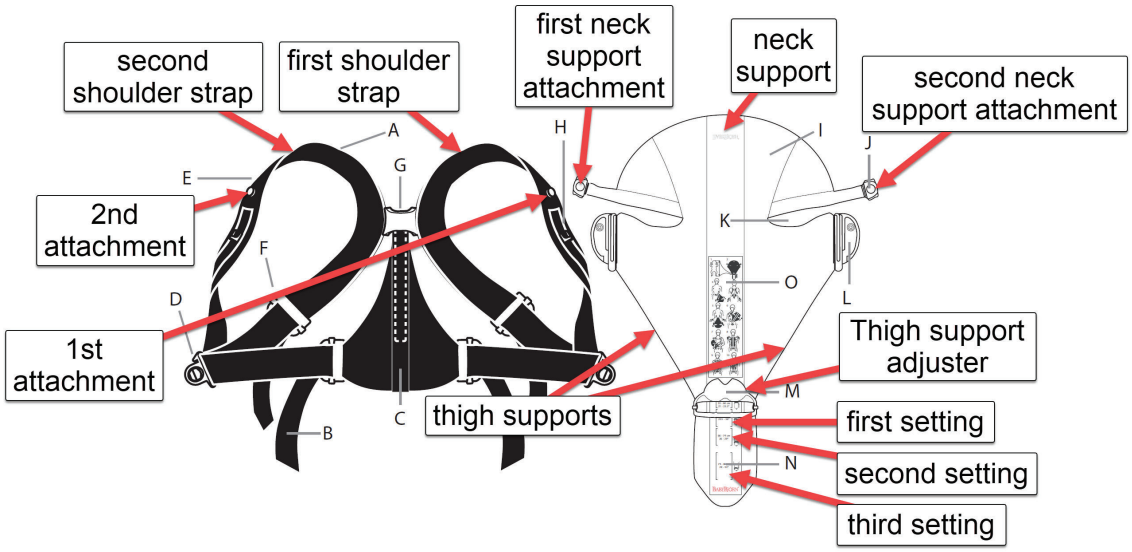


The front piece forms thigh support areas (e.g., lateral side portions or edges of the front piece) the wrap under and support the child's thighs when the child is secured in the carrier (i.e., a **"first thigh support"** for supporting the left thigh and a **"second thigh support"** for supporting the right thigh). Note that the thigh supports taper outward from the buckle (thigh support adjuster) offering a varying amount of support. For example, when configured for a smaller child, with the buckle closest to the tapered section (Shown above right) the thigh supports are wider at the area of the thighs thus offering more support.



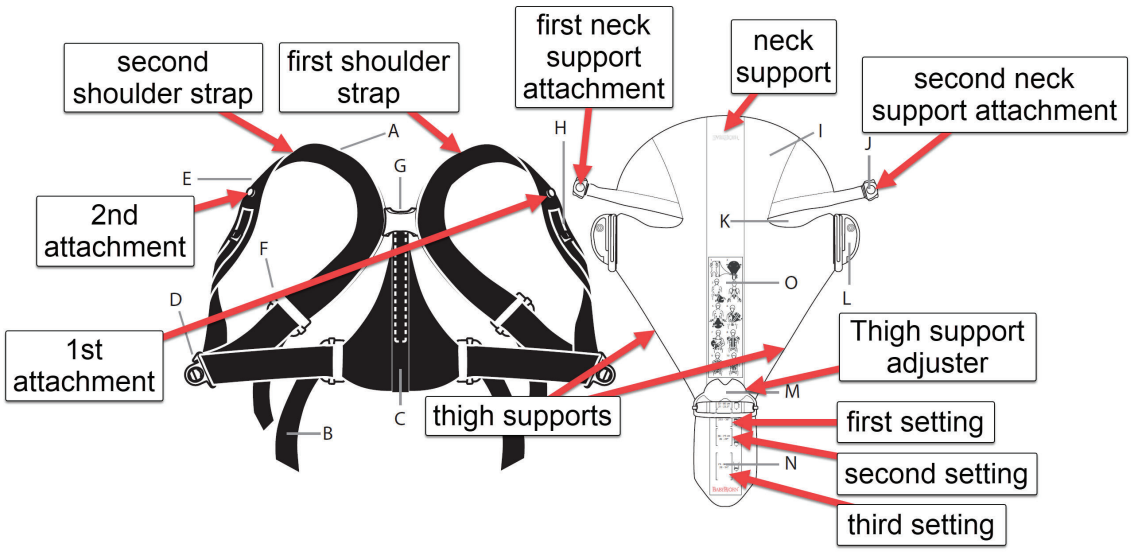
As can be seen in the figures above, in both the forward and rear facing positions, the child's knees are raised, indicating support to the thighs by the thigh supports.

1i – the body forming a first thigh support and a second thigh support;	**Yes.** Synergy discloses that the body forms a first thigh support and a second thigh support.



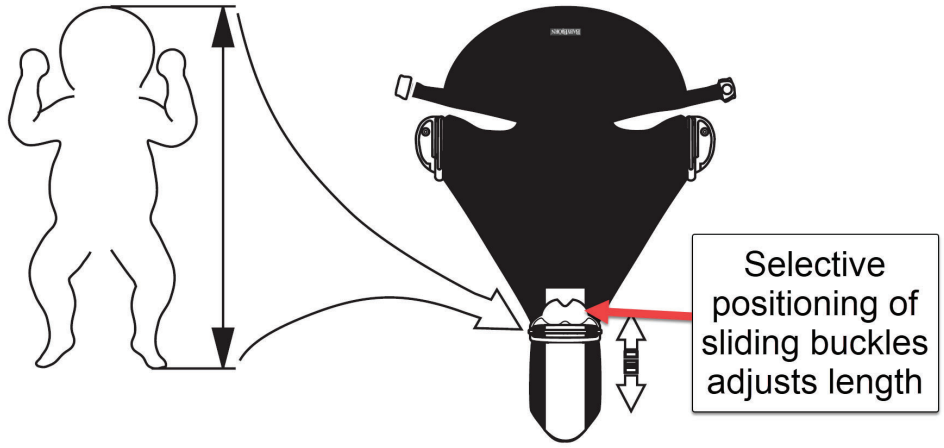
The front piece may be adjusted (e.g., via "sliding buckle" M) to multiple positions or settings based on child size, including at least three different settings (i.e., a **"first setting, a second setting, and a third setting"**).

1j – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** Synergy discloses a first setting, a second setting, and a third setting defined by the adjustable child carrier.



Synergy includes a "sliding buckle" M (i.e., **"at least one thigh support adjuster"**) connected to the front piece, such as to the thigh support areas along the lateral sides of the front piece.

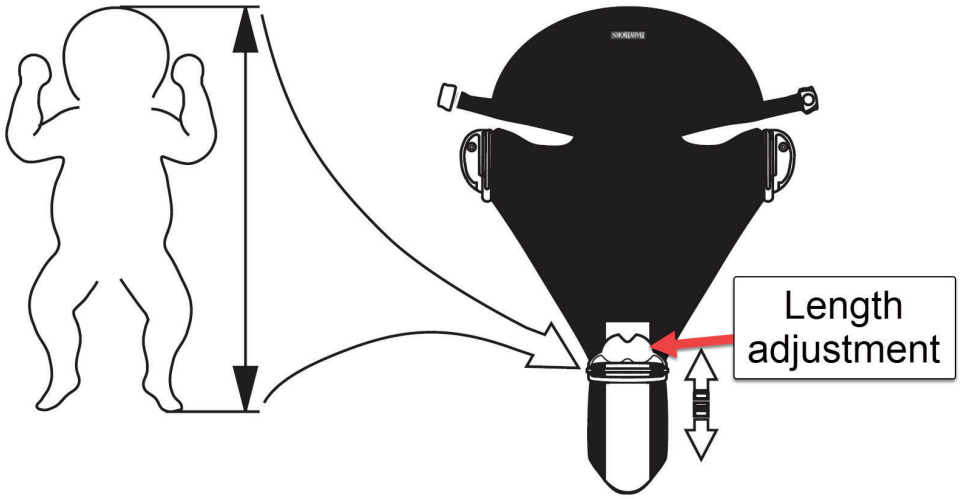
1k – at least one thigh support adjuster coupled to the first thigh support and the second thigh support, Applies the First Construction for the term thigh support adjuster	**Yes.** Synergy discloses at least one thigh support adjuster coupled to the first thigh support and the second thigh support. The buckle, which spans the entire width of the body at its location, engages both thigh supports (one on each side) and is one thigh support adjuster coupled to the first and the second thigh support.



The sliding buckle is positioned along the tail to adjust the length of the front piece based on child size.

E.g., page 2: "2. Adjust the position of the sliding buckle **to your child's height**" (emphasis added).

1m – wherein the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages,	**Yes.** Synergy discloses that the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages.

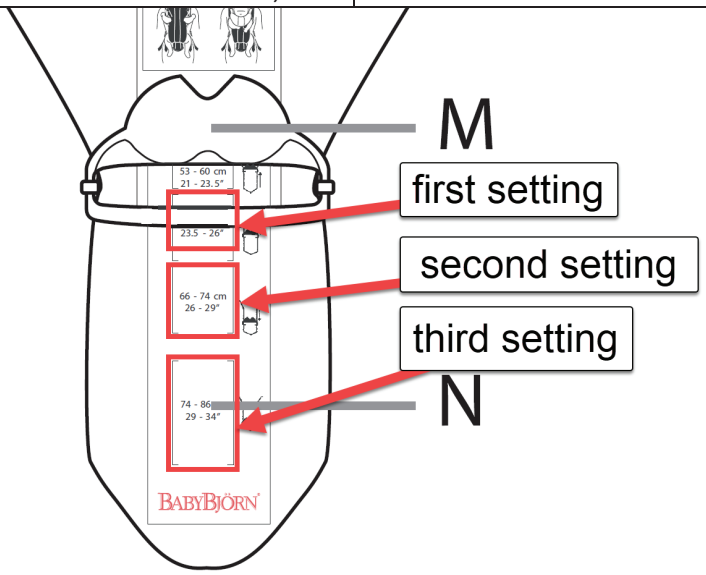


The sliding buckle adjusts the length of the front piece from the bottom of the seat (e.g., at the sliding buckle) to the top of the body.

1n – wherein the length is defined from a bottom of the bucket seat to a top of the body.	**Yes.** Synergy discloses that the length is defined from a bottom of the bucket seat to a top of the body.

Anticipation and/or obviousness of Claim 2 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art

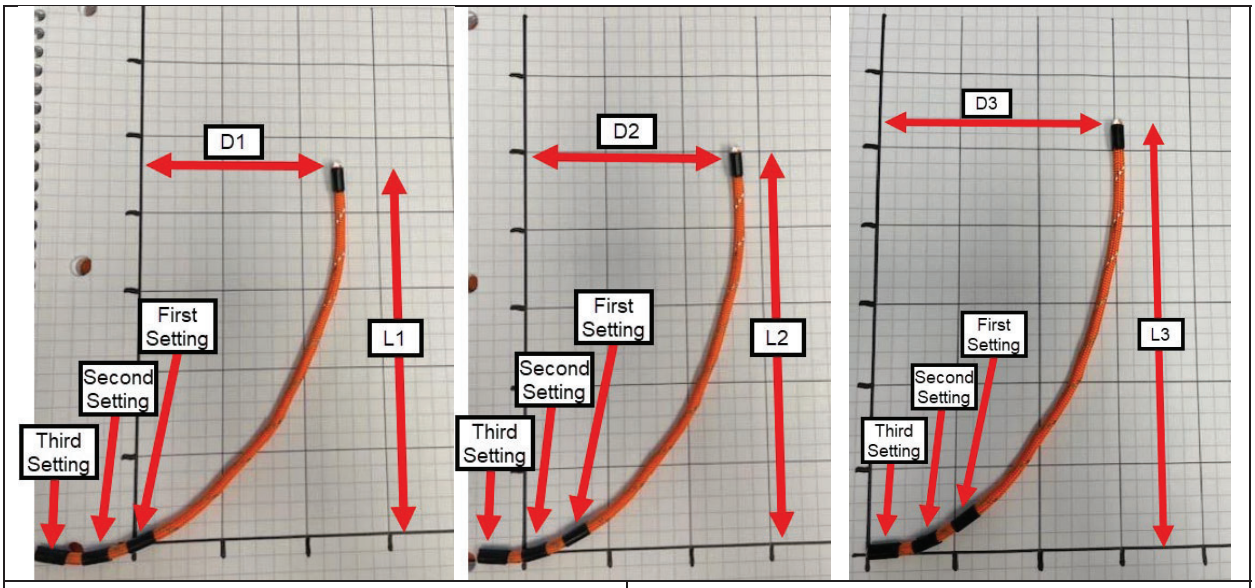
Claim Element	Does the Prior Art have the Element?
2pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.



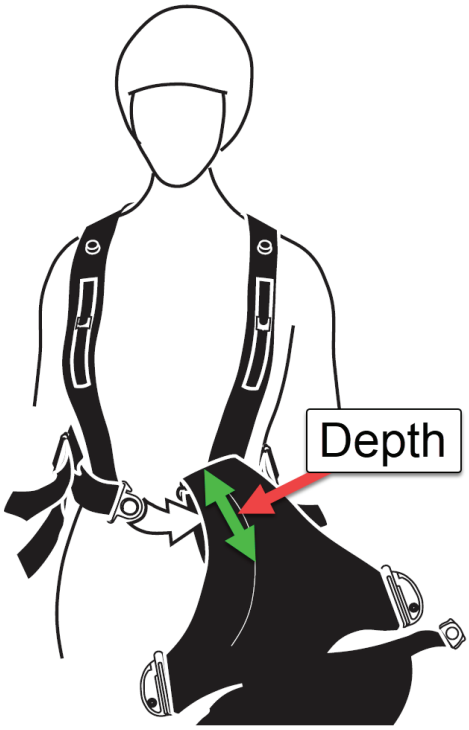
Selectively positioning the sliding buckle M at the first setting adjusts the length to a first length (e.g., " 21 – 23.5" " or " 23.5 – 26" ").

Selectively positioning the sliding buckle M at the second setting adjusts the length to a second length (e.g., " 23.5 – 26" or " 26 – 29" ") greater than the first length.

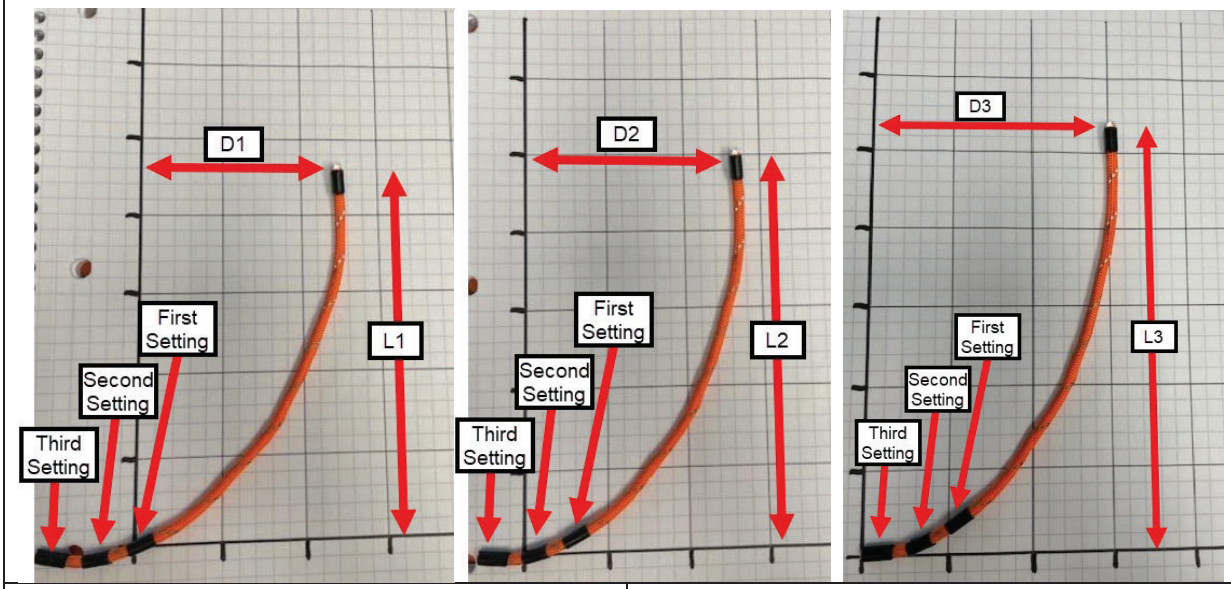
Selectively positioning the sliding buckle M at the third setting adjusts the length to a third length (e.g., " 26 – 29" " or " 29 – 34" ") greater than the second length.

	
2a – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length, **2b** – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length, **2c** – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** Synergy discloses selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length (L1). Further Synergy discloses selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length (L2) greater than the first length (L1). Further Synergy discloses selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length (L3) greater than the second length (L2).

Anticipation and/or obviousness of Claim 3 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
3 pre – The child carrier of claim 1,	**Yes.** See claim 1 above.



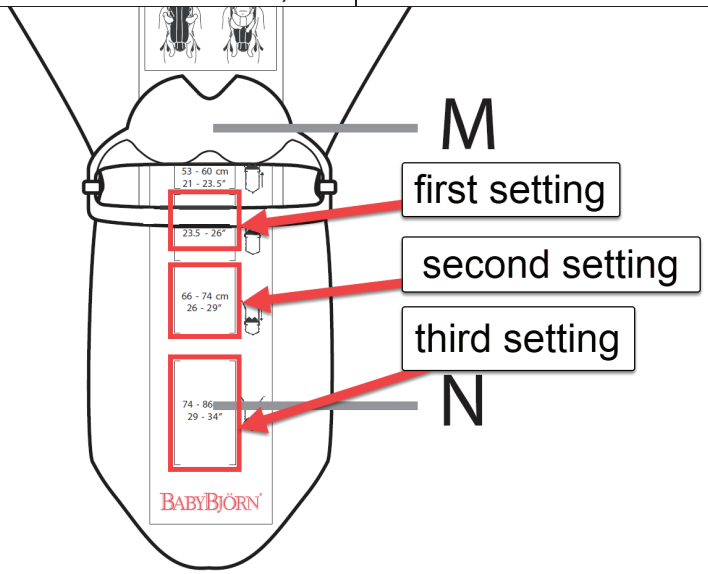
Adjustment of the sliding buckle adjusts a depth of the bucket seat as the length of the front piece changes to accommodate a growing child.



3a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** Synergy discloses that adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child (D1, D2, D3 above).

Anticipation and/or obviousness of Claim 4 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art

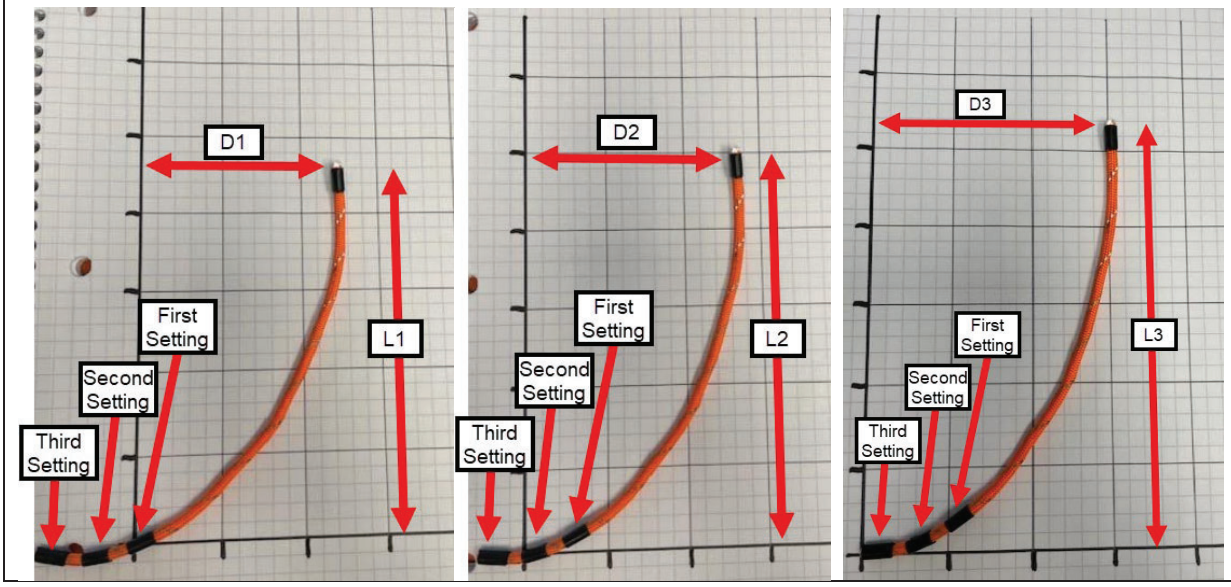
Claim Element	Does the Prior Art have the Element?
4 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.



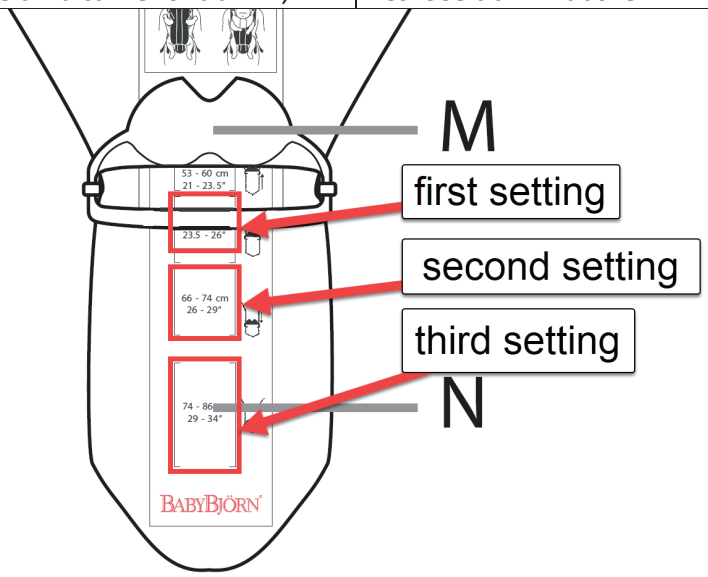
The first setting is vertically displaced from the second setting (e.g., vertically above the second setting along the tail).

The second setting is vertically displaced from the third setting (e.g., vertically above the third setting along the tail).

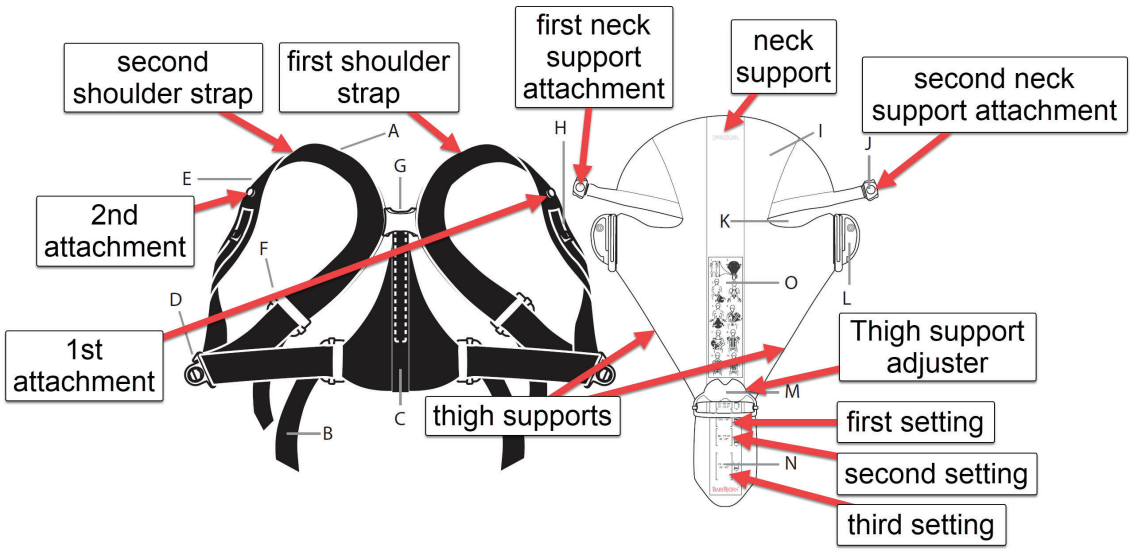
The third setting is vertically displaced from the first setting (e.g., vertically below the first setting along the tail).



4a – wherein the first setting is at least partially vertically displaced from the second setting, **4b** – the second setting is at least partially vertically displaced from the third setting, **4c** – and the third setting is at least partially vertically displaced from the first setting, **4d** – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** Synergy discloses that the first setting is at least partially vertically displaced from the second setting. Further Synergy discloses that the second setting is at least partially vertically displaced from the third setting. Further Synergy discloses that the third setting is at least partially vertically displaced from the first setting. Further Synergy discloses that the second setting is between the first setting and the third setting.

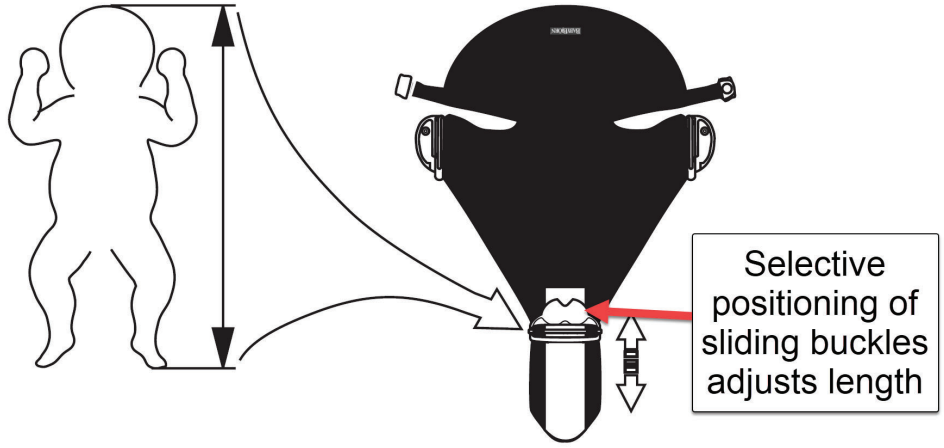
Anticipation and/or obviousness of Claim 5 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
5 pre – The adjustable child carrier of claim 2,	**Yes.** See claim 2 above.
 The first length configures Synergy in an infant mode, where the infant mode is configured to carry a child having a height within the range of 20-24 inches (e.g., " 21 – 23.5" ").	
5a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, **5b** – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** Synergy discloses adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode. Further, Synergy discloses that in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.

Anticipation and/or obviousness of Independent Claim 6 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
6 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** See claim 1 pre above.
6a – a body configured to support the child between the body and a torso of the user,	**Yes.** See element 1a above.
6b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See element 1b above.
6c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See element 1c above.
6d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See element 1d above.
6e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See element 1e above.
6f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See element 1f above.
6g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See element 1g above.
6h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** See element 1h above.
6i – the body forming a first thigh support and a second thigh support;	**Yes.** See element 1i above.
6j – at least one thigh support adjuster coupled to the first thigh support and the second thigh support; and	**Yes.** See element 1k above.



The front piece may be adjusted (e.g., via "sliding buckle" M) to multiple positions or settings based on child size, including at least three different positions (i.e., a **"first position, a second position, and a third position"**).

6k – a first position, a second position, and a third position defined by the adjustable child carrier, **6l** – wherein the first position corresponds to a first setting, the second position corresponds to a second setting, and the third position corresponds to a third setting,	**Yes.** Synergy discloses a first position, a second position, and a third position defined by the adjustable child carrier. Synergy further discloses that the first position corresponds to a first setting, the second position corresponds to a second setting, and the third position corresponds to a third setting.



The sliding buckle M is positioned along the tail to adjust the length of the front piece based on child size.

E.g., page 2: "2. Adjust the position of the sliding buckle **to your child's height**" (emphasis added).

6m – wherein adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure the	**Yes.** Synergy discloses adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure

adjustable child carrier to one of the first setting, the second setting, or the third setting,	the adjustable child carrier to one of the first setting, the second setting, or the third setting.
6n – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See element 1n.

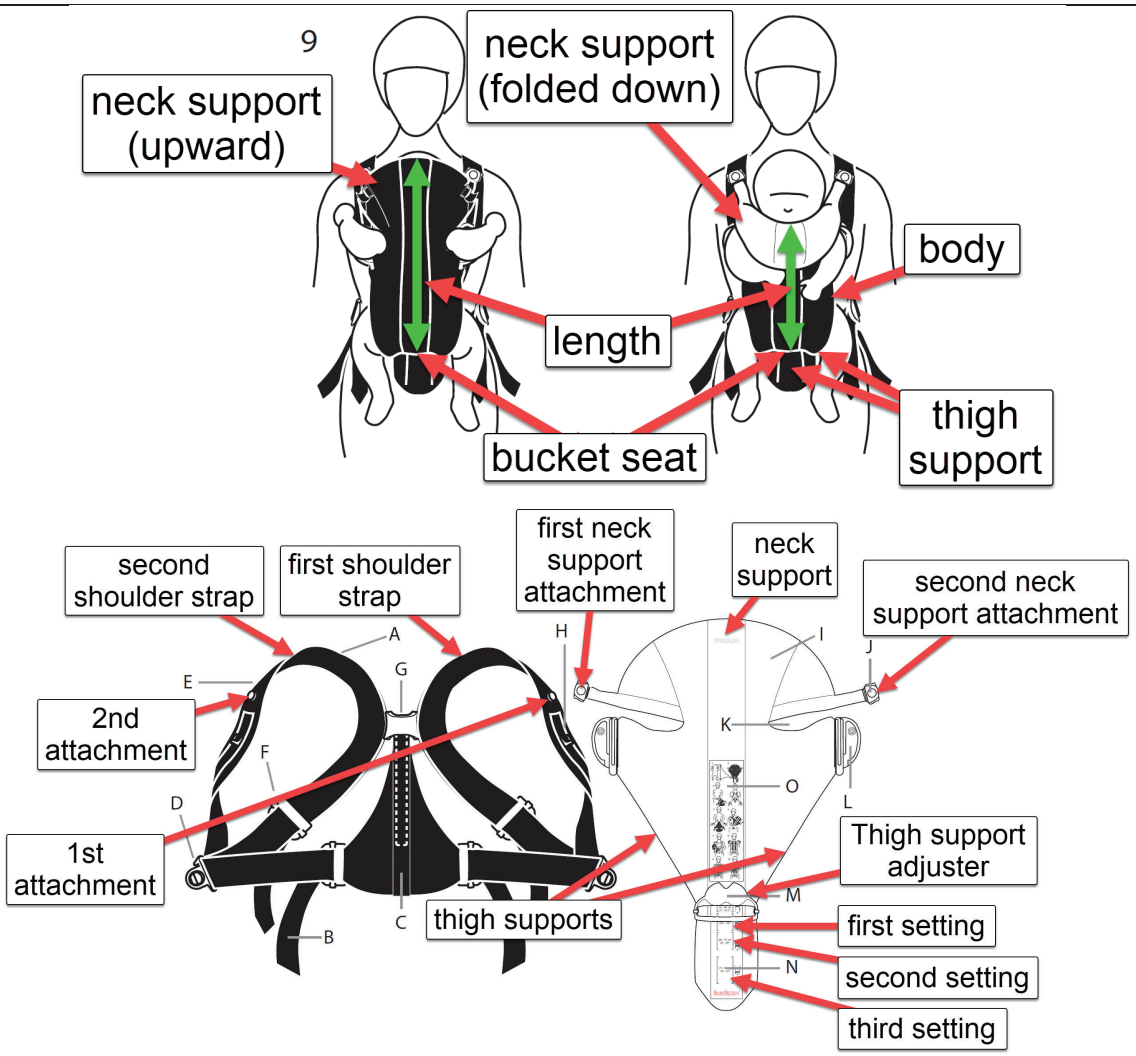
Anticipation and/or obviousness of Claim 7 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
7 pre – "The adjustable child carrier of claim 6, **7a** – "wherein adjustment of the at least one thigh support adjuster from the first position to the second position adjusts the length of the body from a first length to a second length, **7b** – "the second length being greater than the first length, **7c** – "wherein adjustment of the at least one thigh support adjuster from the second position to the third position adjusts the length of the body from the second length to a third length, **7d** – "the third length being greater than the first length and the second length.	**Yes.** See claim 2 above.

Anticipation and/or obviousness of Claim 8 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
8 pre – The adjustable child carrier of claim 6, **8a** – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 3 above.

Anticipation and/or obviousness of Claim 9 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
9 pre – The adjustable child carrier of claim 6, **9a** – wherein the first position is at least partially vertically displaced from the second position, **9b** – the second position is at least partially vertically displaced from the third position, **9c** – and the third position is at least partially vertically displaced from the first position, **9d** – wherein the adjustable child carrier defines the second position between the first position and the third position.	**Yes.** See claim 4 above.

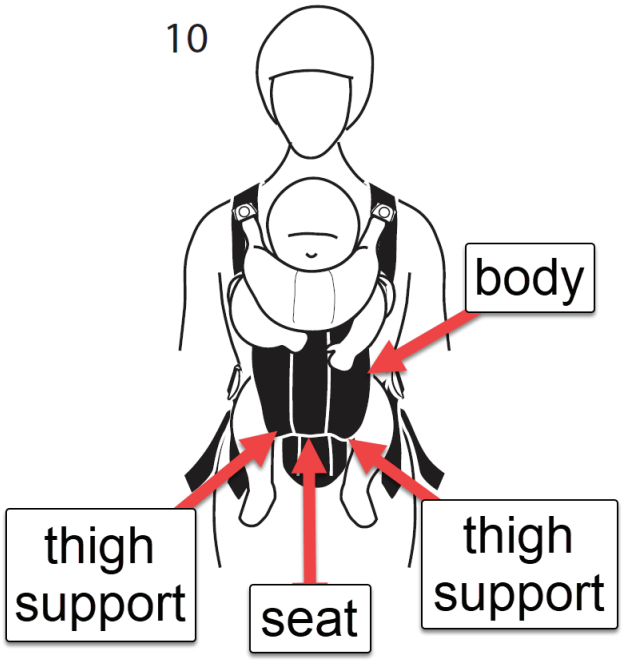
Anticipation and/or obviousness of Claim 10 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
10 pre – The adjustable child carrier of claim 7, **10a** – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, **10b** – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

Anticipation and/or obviousness of Claim 11 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
11 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** See claim 1 pre above.
11a – a body configured to support the child,	**Yes.** See element 1a above.
11b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See element 1b above.
11c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See element 1c above.
11d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See element 1d above.
11e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See element 1e above.
11f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See element 1f above.
11g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See element 1g above.
11h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** See element 1h above.



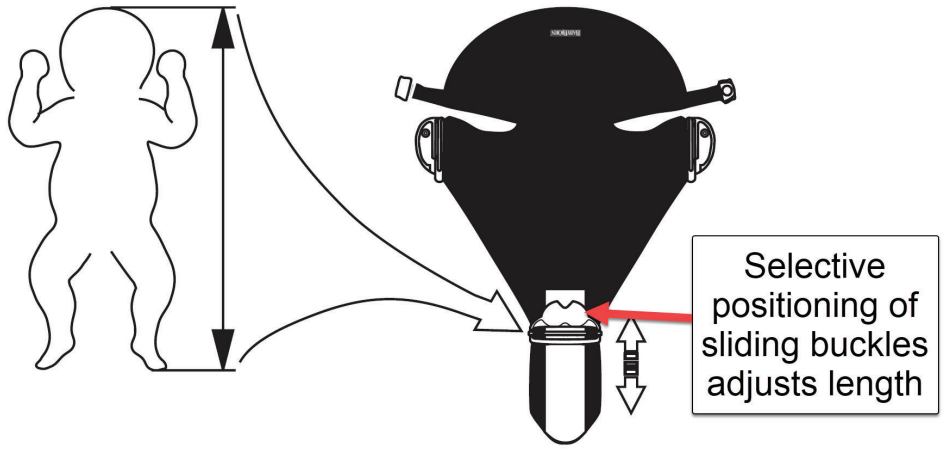
Folding the head support I down and away from the user configures the head support I in an outside folded down position, reducing a length of the body in relation to the upward neck supporting position.

11i – wherein folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position;	**Yes.** Synergy discloses that folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position.
11j – the body forming a first thigh support and a second thigh support;	**Yes.** See element 1i.



The body and thigh supports form a seat in combination.

11k – wherein the body, the first thigh support, and the second thigh support in combination form a seat for the child;	**Yes.** Synergy discloses that the body, the first thigh support, and the second thigh support in combination form a seat for the child;
11l – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** See element 1j above.
11m – at least one thigh support adjuster coupled to the first thigh support and the second thigh support,	**Yes.** See element 1k above.



The sliding buckle M is positioned along the tail to adjust the length of the front piece based on child size.

E.g., page 2: "2. Adjust the position of the sliding buckle **to your child's height**" (emphasis added).

11n – wherein selective positioning of the at least one thigh support adjuster at the first setting, the	**Yes.** Synergy discloses that selective positioning of the at least one thigh support adjuster at the

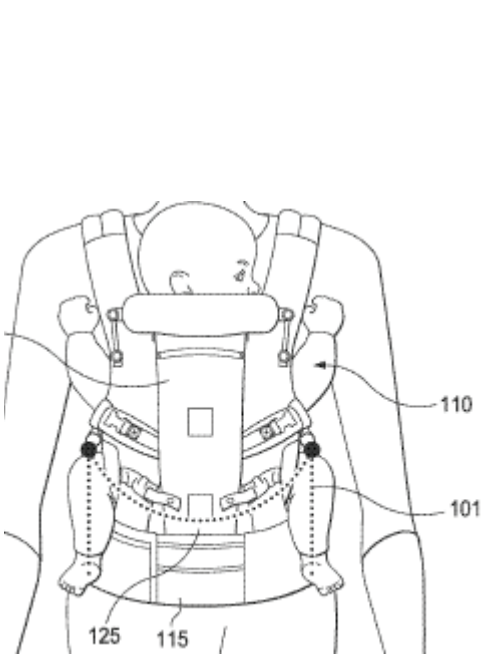
second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages,	first setting, the second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages.
11o – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See element 1n above.

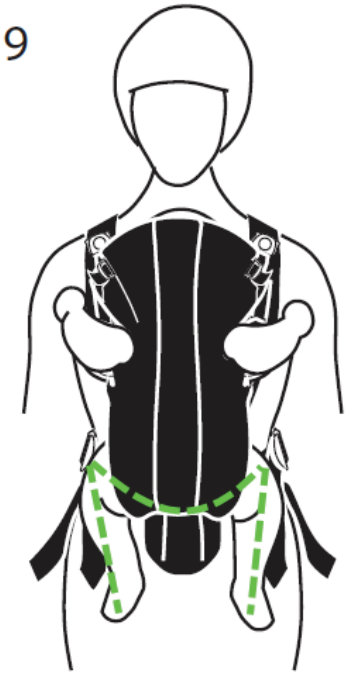
Anticipation and/or obviousness of Claim 12 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
12 pre – "The adjustable child carrier of claim 11, **12a** – "wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 3 above.

Anticipation and/or obviousness of Claim 13 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
13 pre – The adjustable child carrier of claim 11, **13a** – wherein the first setting is at least partially vertically displaced from the second setting, **13b** – the second setting is at least partially vertically displaced from the third setting, **13c** – and the third setting is at least partially vertically displaced from the first setting, **13d** – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** See claim 4 above.

Anticipation and/or obviousness of Claim 14 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
14 pre – The adjustable child carrier of claim 11, **14a** – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length, **14b** – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length, **14c** – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** See claim 2 above.

Anticipation and/or obviousness of Claim 15 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of US patent Application No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
15 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.



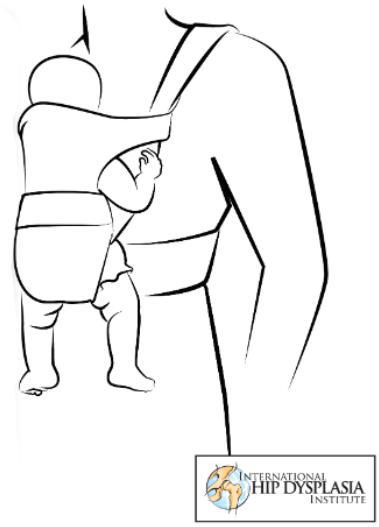


The seat is configured to support the child in a spread squat position (e.g., as defined in the '055 patent as "with the child's pelvis, bottom and thighs all being supported"). The spread squat position as defined in the '055 patent illustrated by the dotted line labeled 101 in Figure 1 above (left), which is shown side by side with the same position illustrated in the Synergy manual (right).

As shown above, Synergy discloses supporting the child in a spread squat position. Further, Synergy in view of Lundh renders this claim element obvious.

Further, to the extent the spread squat position is not disclosed by the Synergy manual, it would have been obvious to add more fabric at the outward tapered edges to allow for more support of the thighs, keeping them substantially parallel to the ground, in view of Lundh. Lundh discloses: "Since it is recommended by pediatrics that carried children sit **in the so-called frog-position**, in which their upper legs are substantially parallel with the ground, and their knees at substantially the same level as their hips, it is advantageous for a baby carrier to provide this seating option."[1] It would have been well within the POSITA's ability to make this simple change, and they would have been motivated to do so to achieve the known and obvious ergonomic benefit described in Lundh.

[1] Paragraph [0016] emphasis added

Not Recommended:  	**Better:** 
15a – wherein the seat is configured to support the child in a spread squat position.	**Yes.** Synergy in view of Lundh discloses that the seat is configured to support the child in a spread squat position. The `055 patent further describes this as the M position, represented by the line 101 shown in the image above on the top left. The figure on the top right above shows the M or spread squat position on the figure from the Synergy Manual. It is well known in the art that the spread squat, or "frog", position is the most ergonomic way to carry a child. For example, the `730 teaches that "Since it is recommended by pediatrics that carried children sit **in the so-called frog-position**, in which their upper legs are substantially parallel with the ground, and their knees at substantially the same level as their hips, it is advantageous for a baby carrier to provide this seating option"[2] (emphasis added). Further, it was well known to a POSITA to support a child in a spread squat position to promote natural hip development. As early as 2014, the International Hip Dysplasia Institute taught that "The healthiest position for the hips is for the hips to fall or spread (naturally) apart to the side, with the thighs supported and the hips and knees bent. This position has been called the jockey

[2] `730 Application [0016] Emphasis Added

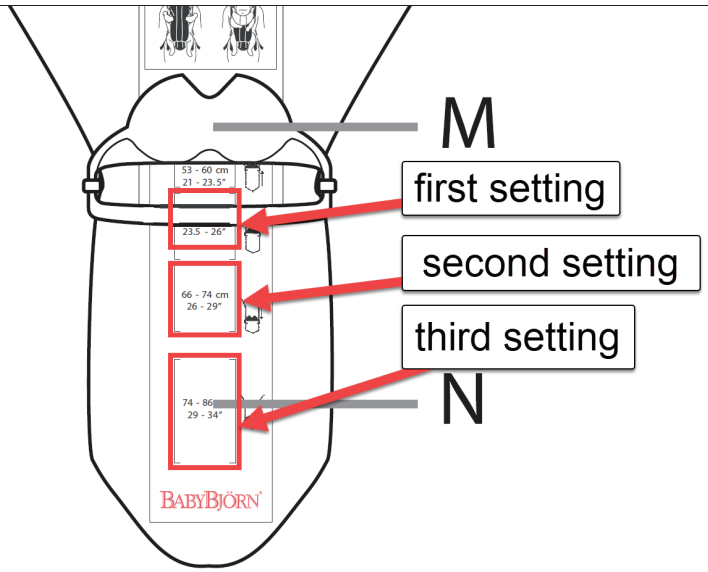
	position, straddle position, frog position, spread-squat position or human position."[3] Therefore, it would be obvious to a POSITA that a baby carrier carries the child in a position that is **heathy and natural** as described by the hip dysplasia institute, and would have a seat configured to support the child in a spread squat position as disclosed by the `730.

Anticipation and/or obviousness of Claim 19 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of US patent Application No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
19 pre – The adjustable child carrier of claim 1, **19a** – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

Anticipation and/or obviousness of Claim 20 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of US patent Application No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
20 pre – The adjustable child carrier of claim 6, **20a** – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

Anticipation and/or obviousness of Claim 21 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
21 pre – The adjustable child carrier of claim 5,	**Yes.** See claim 5 above.

[3] https://web.archive.org/web/20140208144252/http:/hipdysplasia.org/developmental-dysplasia-of-the-hip/prevention/baby-carriers-seats-and-other-equipment/ (Ex. 1012)



The third length configures Synergy in a toddler mode (e.g., "Adjust the position of the sliding buckle to your child's height.").

In the toddler mode, Synergy is configured to carry a child having a height of at least 28 inches (e.g., "26 – 29" ").

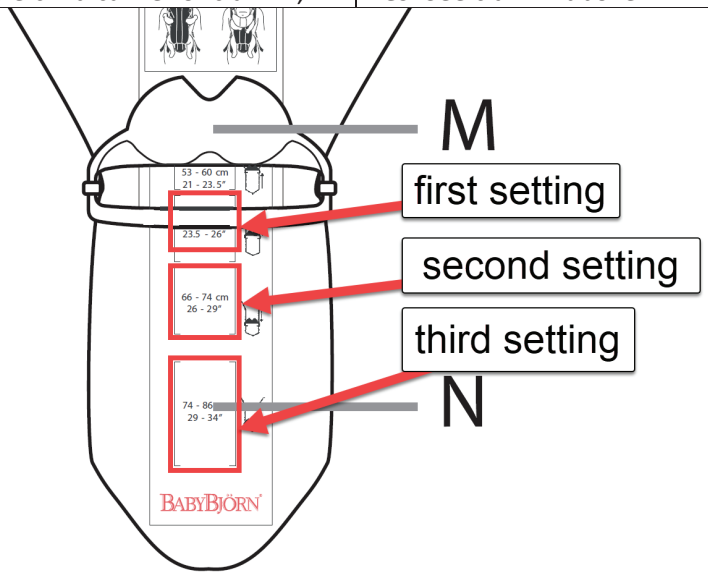
21a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** Synergy alone, or with the knowledge of a POSITA discloses that adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.

Anticipation and/or obviousness of Claim 22 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
22 pre – The adjustable child carrier of claim 10, **22a** – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 23 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**

23 pre – The adjustable child carrier of claim 14, **23a** – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

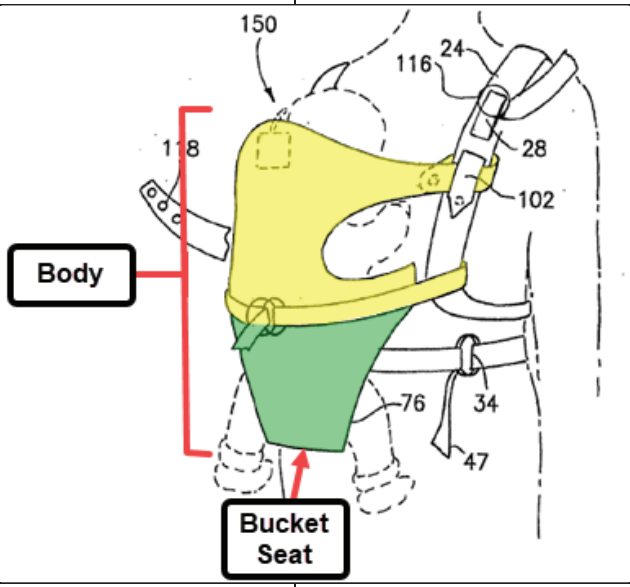
Anticipation and/or obviousness of Claim 24 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
24 pre – The adjustable child carrier of claim 23, **24a** – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 28 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
28 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
 The first, second, and third settings are visible to the user for the selective positioning of the sliding buckle M (e.g., to see the different bands of length adjustments along the tail).	
28a – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** Synergy discloses that each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.

Anticipation and/or obviousness of Claim 29 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
29 pre – The adjustable child carrier of claim 6, **29a** – wherein each of the first position, the second position, and the third position is visible to the user for the adjustment of the at least one thigh support adjuster.	**Yes.** See claim 28 above.

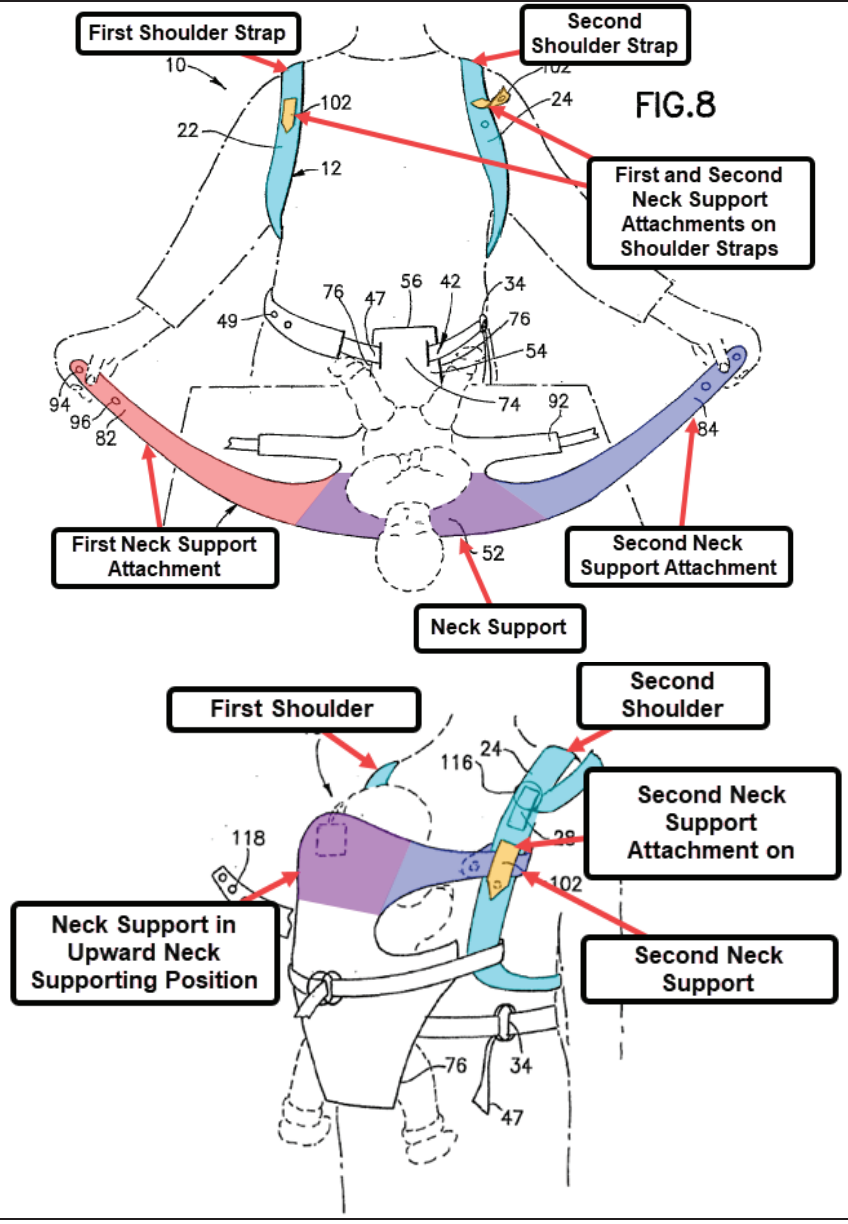
Anticipation and/or obviousness of Claim 30 of the US Patent No. 11,786,055 over the Baby Carrier Synergy Manual in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
30 pre – The adjustable child carrier of claim 11, **30a** – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** See claim 28 above.

APPENDIX B

Anticipation and/or obviousness of Claim 1 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
	
1pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising	**Yes.** As shown above, the `117 discloses an adjustable child carrier for supporting a child by a user. The `117 states: "This invention relates to a modular garment item configured with a baby carrier, diaper bag and harness detachably coupled to one another to provide an ergonomically constructed, easily assembleable and aesthetically appealing harness-type baby carrier."[1] Further, "…the components of the inventive baby carrier unit have respective adjusting assemblies."[2]
1a – a body configured to support the child,	**Yes.** As shown above, the `117 discloses a body configured to support the child. The `117 states: "The infant support 14 … is preferably made from a single piece of material and configured with a shell or body 50."[3]
1b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** As shown above, the `117 discloses a body that forms a bucket seat configured to support the legs of the child. The `117 states "…the bottom end region [52] is folded over a front segment of

[1] `117 patent pg 1 para 1
[2] `117 patent pg 4 para 3
[3] `117 patent pg 9 para 2

	the waistband of the harness and coupled thereto so as to form a U-shaped infant seat [74] for which is flanked by two openings [76] on the opposite sides of the seat for receiving respective legs of the infant," with the infant seat forming a recessed area or compartment (i.e., a **"bucket seat"**) to support at least legs of the child when seated.

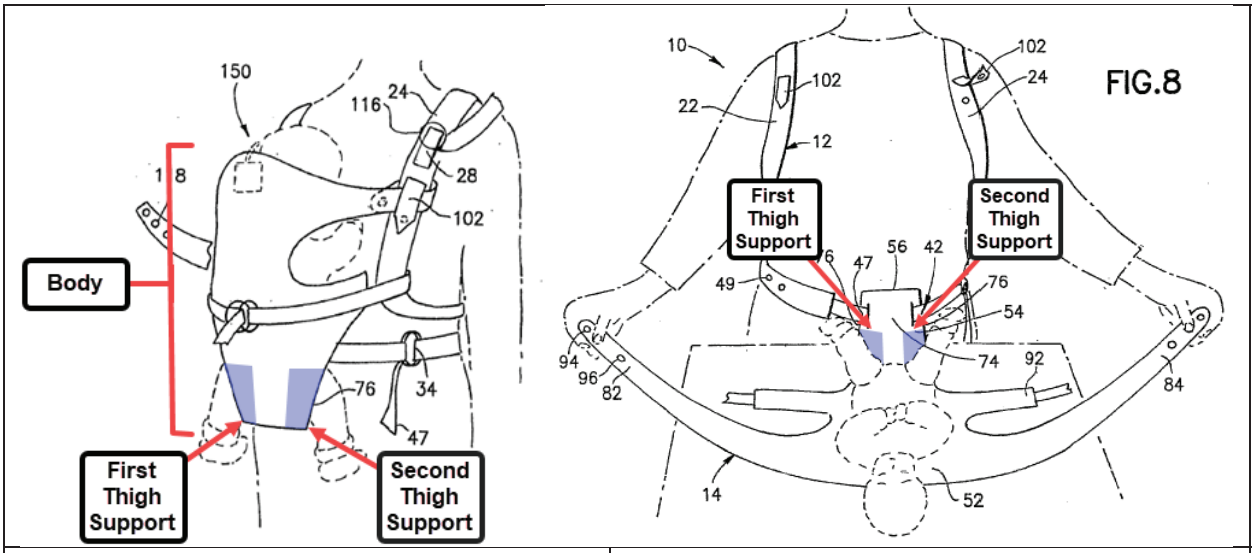


1c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** As shown above, the `117 discloses a neck support comprising a first neck support attachment and a second neck support attachment. The `117 states: "The top region 52 of infant carrier 14 extends along top edge 78 (FIG. 5) … and defining, thus, an upper pair of flaps 82 and 84[.]"[4] "[E]ach pair of upper and lower flaps has respective engaging or fastening assemblies that provide for length adjustment of the flaps, which, in turn, leads to securement of the infant's rear upper torso and, depending on the design, the cervical region of the infant's spine and the back of the infant's head."[5] Thus, the `117 discloses a top region 52 for positioning at the child's neck (i.e., a **"neck support"**) having a pair of flaps 82, 84 for attachment (i.e., a **"first neck support attachment"** and a **"second neck support attachment"**).
1d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** As shown above, the `117 discloses a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user. The `117 states: "[S]trap 18 is structured with a central support 20 and two shoulder straps 22 and 24"[6] (i.e., a **"first shoulder strap"** and a **"second shoulder strap"**).
1e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** As shown above, the `117 discloses a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user. See claim 1d above.

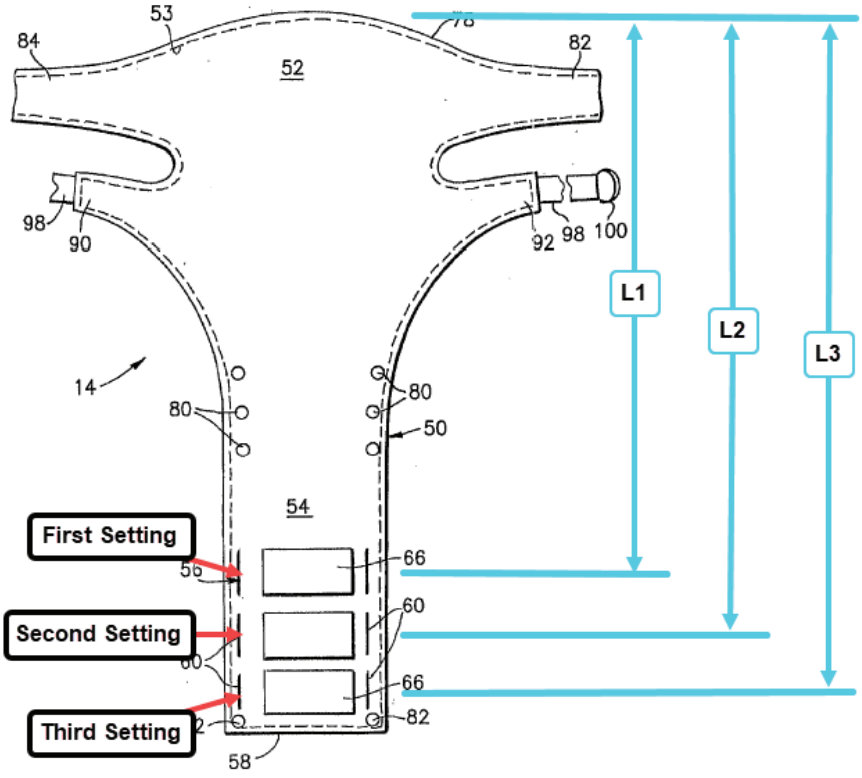
[4] `117 patent pg 11 para 2
[5] `117 patent pg 11 para 2
[6] `117 patent pg 6 para 1

1f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** As shown above, the `117 discloses a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment. The `117 states: "To prevent the slippage of upper and lower flaps 82, 84 and 90, 94, respectively, along the respective shoulder straps, the latter may be provided with **stoppers 102**"[7] (i.e., a **"first attachment"** and a **"second attachment"**). The `117 teaches that the stoppers 102 receive the neck support attachments, such as the stoppers 102 positioned over the flaps 82, 84 after the flaps 82, 84 are looped around the shoulder straps 22, 24. In the `117 language, "[c]oupling between top region of infant support 14 and harness is realized by looping the free ends of each of upper flaps 82, 84 around respective shoulder straps 22 and 24 at the front of the wearer and engaging a respective pair of male and female fastening elements 94 and 96 to secure the wrapped flap to the shoulder strap."[8]
1g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment;	**Yes.** As shown above, the `117 discloses a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment. See claim 1f above.
1h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** As shown above, the `117 discloses the neck support configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment. The `117 provides neck support 52 extending upwardly to support the child's neck when flaps 82, 84 are connected to shoulder straps 22, 24 (i.e., **"an upward neck supporting position"**).

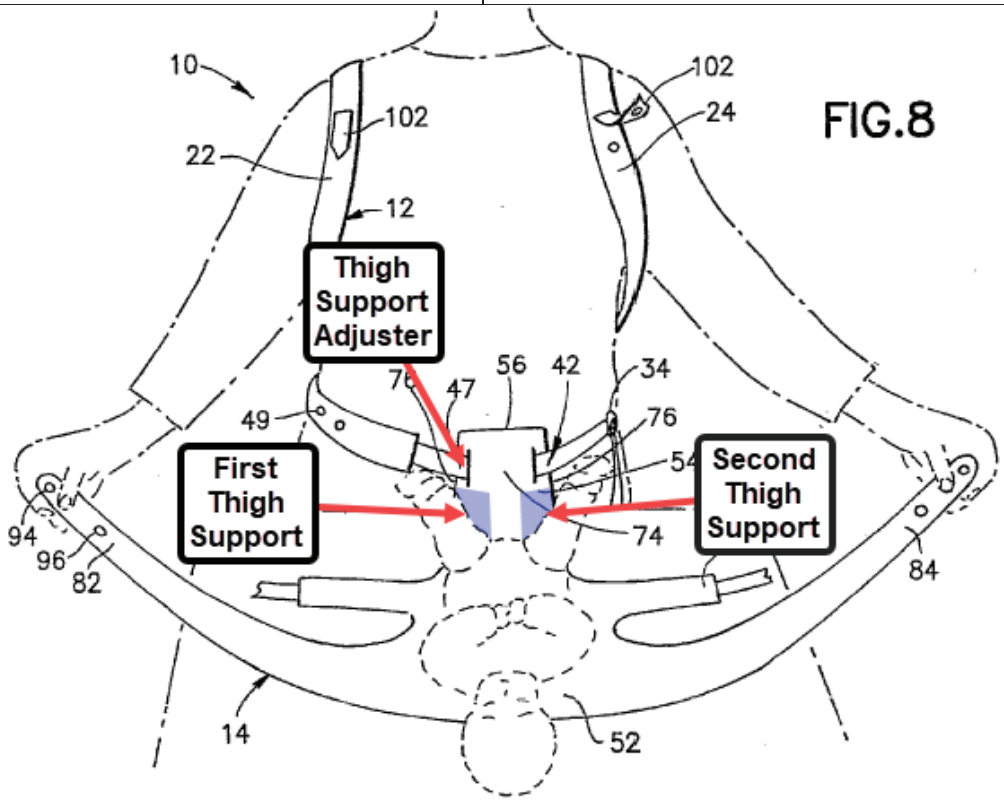
[7] `117 patent pg 12 para 2
[8] `117 patent pg 11 para 4



1i – the body forming a first thigh support and a second thigh support;	**Yes.** As shown above, the `117 discloses a first thigh support and a second thigh support. The `117 teaches that the bottom region 54 defines an infant seat 74 having thigh support areas (e.g., lateral side portions or edges of bottom region 54) that wrap under and support the child's thighs when the child is secured in the carrier (a **"first thigh support"** for supporting the left thigh and a **"second thigh support"** for supporting the right thigh).



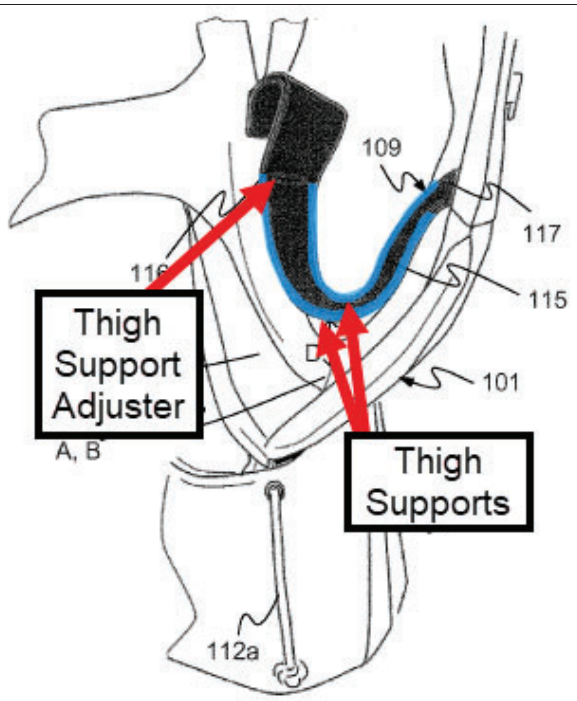
1j – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** The `117 discloses a first setting, a second setting and a third setting defined by the adjustable child carrier. The `117 states: "[I]nterface 56 includes a column of individual pockets 66 formed along bottom region 54" and/or "interface 56 has a plurality of slits [60] formed in the inner surface of shell 50 and extending parallel to one another along bottom region 54" (i.e., **"a first setting, a second setting, and a third setting"**). Threading tether 47 though the different sets of slits 60 adjusts the length of the body and the size of the bucket seat.



1k – at least one thigh support adjuster coupled to the first thigh support and the second thigh support, Applies the First Construction for the term thigh support adjuster	**Yes.** As shown above, the `117 discloses at least one thigh support adjuster coupled to the first thigh support and the second thigh support. The `117 states "Each pocket 66 extends between the opposite sides of the shell 50 and is configured to receive tether 47 of shoulder strap 24[.]"[9] Further, "[t]he slits 60 each are dimensioned to allow tether 47 of shoulder strap 24 to slip through it."[10] Thus, the `117 discloses a tether 47 that is selectively coupled to the thigh supports of the carrier, such as via pockets 66 and/or slits 60 of the interface 56. Further, as the body curves out and away from the centerline, choosing a pair of slits closer to the curvature results in the child carrier providing more thigh support than when a pair of slits further from curves are used.

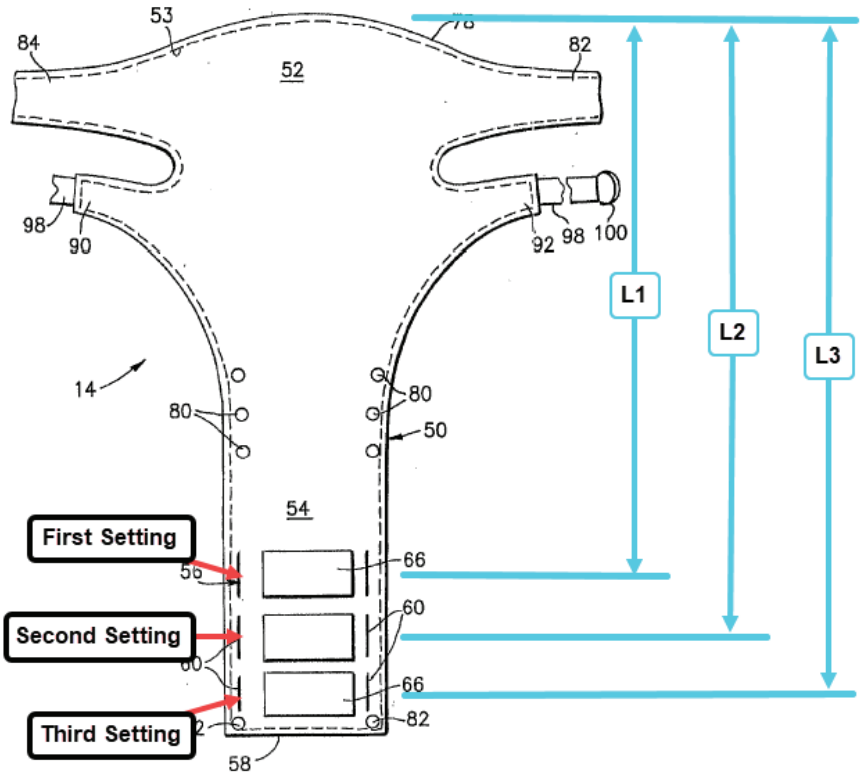
[9] `117 Patent pg 10 para 1
[10] `117 Patent pg 10 para 2

	The `730 application also discloses a thigh support adjuster, and it would be obvious to a person of ordinary skill in the art to add the thigh support adjuster of the `730 application to the carrier of the `117. The `730 application discloses a child carrier having a bottom portion 109 providing a drooped seat for a baby, the bottom portion 109 having thigh support areas (e.g., lateral side portions or edges of bottom portion 109; **"thigh supports"**) that wrap under and support the baby's thighs when the baby is secured in the carrier. Part 116 of the bottom portion 109 "is detachably attached to the stomach portion 118 by a hook-and-eye-connection" (i.e., **"at least one thigh support adjuster"**) to adjust the distance D between the bottom portion 109 and interface A, B, such as to move the thigh supports up and down, thereby "[providing] for adaption of the carrier 100 to suit both smaller children, using the higher position, as well as larger children, using the lower seat position." *See* paragraphs [0041] – [0042]. A person skilled in the art would be motivated to add the adjuster of the `730 application to the carrier of the `117 application based on multiple benefits the combination would provide, including easier adjustment of the carrier and the ability to adjust with one hand rather than having to thread a strap through the slits. A person skilled in the art would understand that the adjuster of the '730 application (109) could be substituted for the adjuster of the `117 application and operated as described in the `730 application.

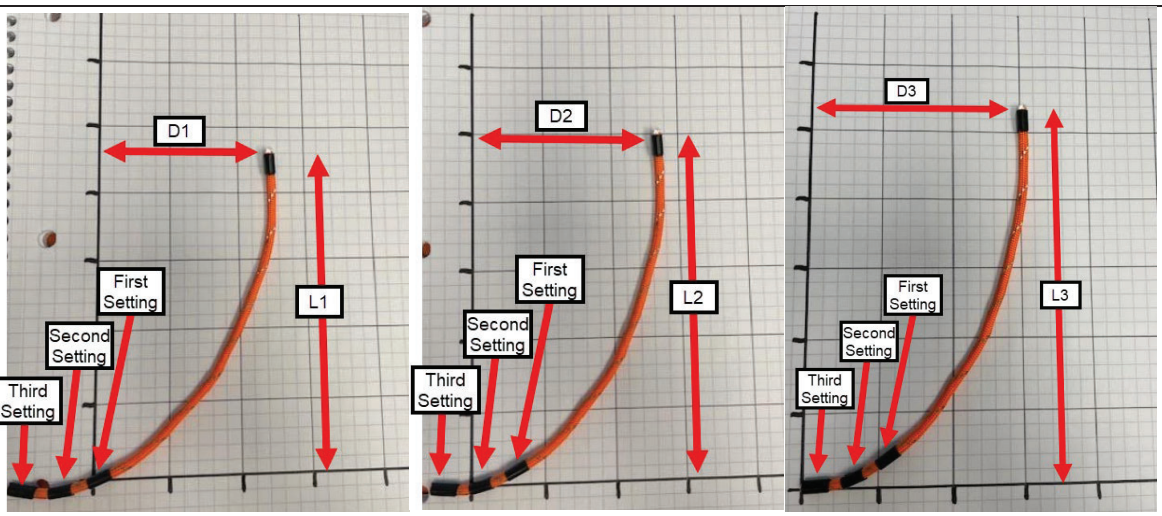
	 Fig. 6
1m – wherein the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages,	**Yes.** As shown above, the `117 discloses at least one thigh support adjuster configured to be selectively positioned to one of the first setting, the second setting or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages. The `117 states that "…multiple receiving pockets 66 or slits 60 allow the wearer to select any particular channel and slip tether 47 of the shoulder strap 24 therethrough…"[11] and "…[t]he interface 56 is configured … to controllably adjust a distance between top and bottom regions 52 and 54, respectively, of the infant support in the assembled state of the baby carrier unit."[12] The patent further teaches "a first position adjusting assembly… for adjustably coupling the harness to the infant support so as to controllably vary a length of the infant support between he seat and the upper region, whereby the infant support is securely adaptable to an infant size. Taken together, it is clear that the `117 teaches that the tether 47 is selectively received in one of a first pocket 66/slit 60, a second pocket 66/slit 60,

[11] `117 Patent pg 10 para 3
[12] `117 Patent pg 9 para 3

	or a third pocket 66/slit 60, such as to adjust the length of the carrier for the infant.
1n – wherein the length is defined from a bottom of the bucket seat to a top of the body.	**Yes.** As shown above the `117 discloses a child carrier wherein the length is defined from a bottom of the bucket seat to a top of the body. The `117 states that "…shell 50 has numerous fastening and adjusting assemblies operative to **controllably vary the length between a top region 52 and a bottom region of shell 50** in accordance with the requirements of the wearer and, of course, the physical attributes of the infant…"[13] Additionally, the `117 claims "a first position adjusting assembly … for adjustably coupling the harness to the infant support so as to **controllably vary a length of the infant support between the seat and the upper region**, whereby the infant support is securely adaptable to an infant size"[14]
Anticipation and/or obviousness of Claim 2 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
2pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.

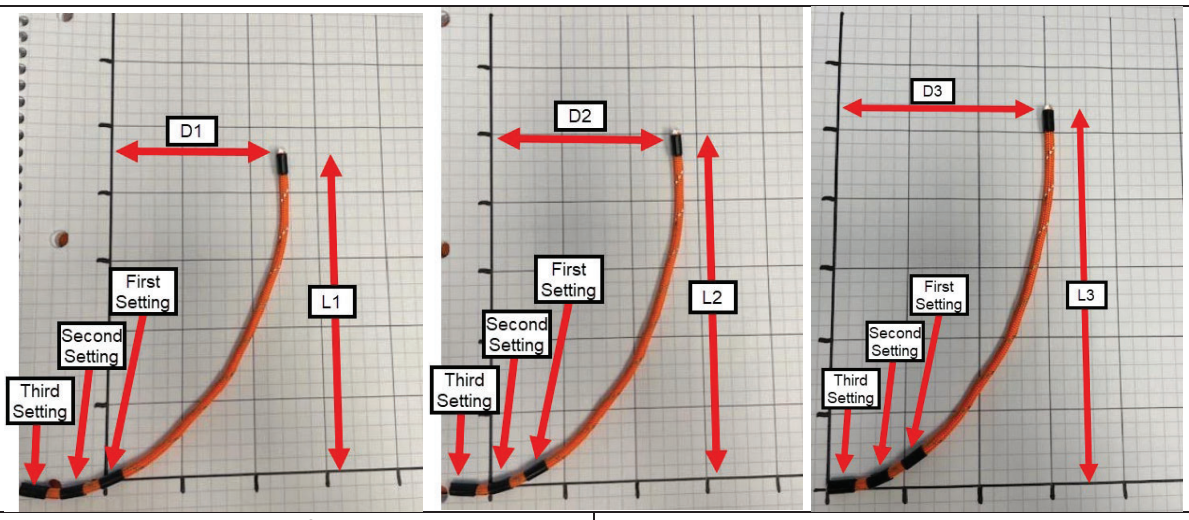


[13] `117 Patent pg 9 para 2, emphasis added
[14] `117 Patent claim 4

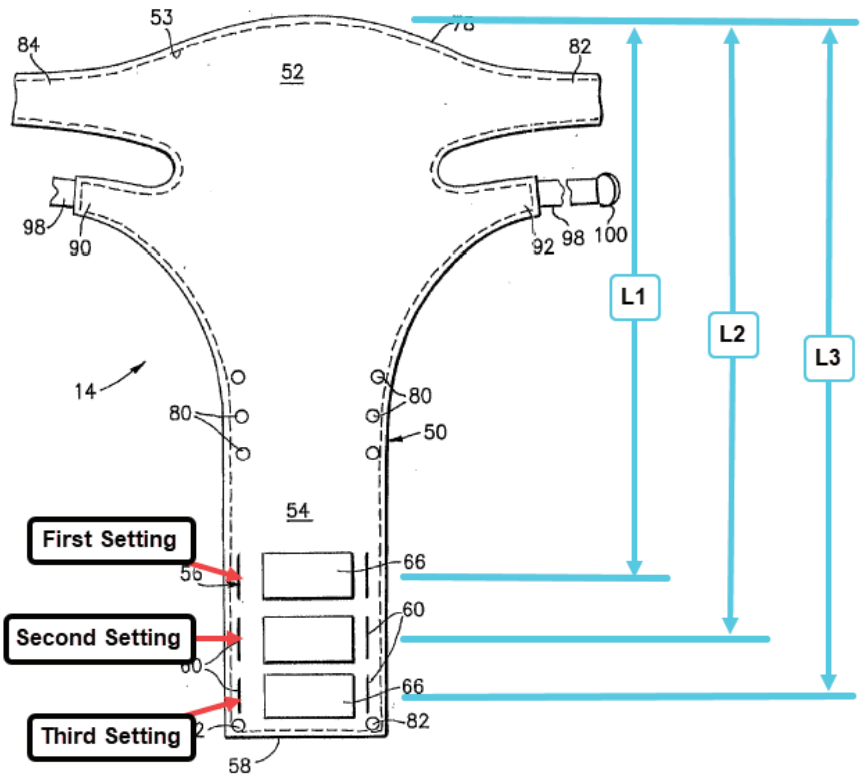


2a – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length,	**Yes.** As shown above the `117 discloses a child carrier wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length (L1).
2b – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length,	**Yes.** As shown above the `117 discloses a child carrier wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length (L2) which is greater than the first length (L1).
2c – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** As shown above the `117 discloses a child carrier wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length (L3) which is greater than the second length (L2).

Anticipation and/or obviousness of Claim 3 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
3 pre – The child carrier of claim 1,	**Yes.** See claim 1 above.

	
3a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** As shown above, adjusting the attachment of the bottom region 54 to tether 47 adjusts a depth of the bucket seat (D1, D2, D3) as the length (L1, L2, L3) between top and bottom regions 52, 54 changes.

Anticipation and/or obviousness of Claim 4 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
4 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.



4a – wherein the first setting is at least partially vertically displaced from the second setting,	**Yes.** As shown above, the `117 teaches a first setting at least partially vertically displaced from the second setting.
4b – the second setting is at least partially vertically displaced from the third setting,	**Yes.** As shown above, the `117 teaches a second setting at least partially vertically displaced from the third setting.
4c – and the third setting is at least partially vertically displaced from the first setting,	**Yes.** As shown above, the `117 teaches a third setting at least partially vertically displaced from the first setting.
4d – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** As shown above, the `117 teaches a second setting between the first setting and the third setting.

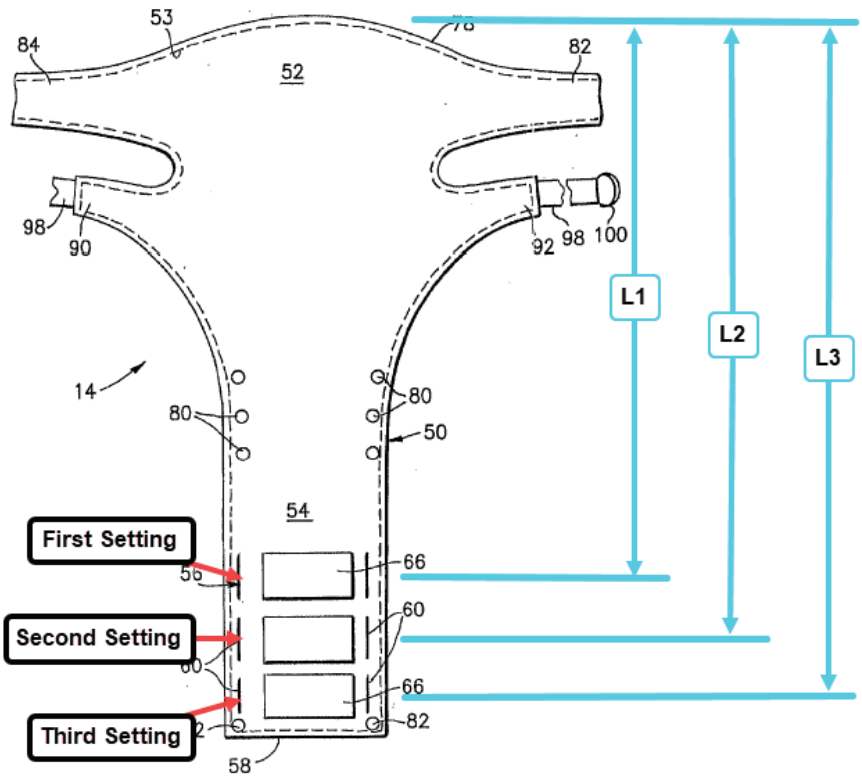
Anticipation and/or obviousness of Claim 5 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
5 pre – The adjustable child carrier of claim 2,	**Yes.** See claim 2 above.
5a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode,	**Yes.** See claims 1j, 1m, and 1n above. Additionally, the `117 states "a first position adjusting assembly … for adjustably coupling the harness to the infant support so as to controllably vary a length of the infant support between the

	seat and the upper region, **whereby the infant support is securely adaptable to an infant size**"[15] "The interface 56 is configured … to controllably adjust a distance between top and bottom regions 52 and 54, respectively, of the infant support in the assembled state of the baby carrier unit."[1] "Selection of pocket 66 or slit 60, for example, next to bottom edge 58 … determines the largest possible distance between bottom and top edges 58, 78."[1] A POSITA would easily understand that the converse is also true, selection of pocket 66 or slit 60 **furthest away** from edge 58 determines the **shortest** possible distance between bottom and top edges 58, 78. Further, a POSITA would readily understand the importance of dimensions L1, L2, L3 and the advantages posed by choosing dimensions that coordinated to stages of the child's physical development. Given that dimension L1 determines the shortest possible distance between top and bottom edges 58, 78, and therefore determines the shallowest depth of the bucket seat, a POSITA would understand this configuration to correspond with carrying the smallest possible child or infant.

Age	Male baby	Female baby
Birth	19.69 in (50 cm)	19.29 in (49 cm)
1 month	21.65 in (55 cm)	21.26 in (54 cm)
2 months	23.03 in (58.5 cm)	22.44 in (57 cm)
3 months	24.21 in (61.5 cm)	23.62 in (60 cm)

[16]

[15] `117 patent Claim 4, emphasis added
[16] "What is the length for a baby?" Medical News Today - https://www.medicalnewstoday.com/articles/324728 (Ex. 1010)

	
5b – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** As shown above, the `117 discloses that the carrier is able to be used for an infant. It is well known to a POSITA, as indicated in the Medical News Today article "What is the length for a baby?" that a child in the height range of 20-24 inches would be an infant of approximately 0-3 months of age. Additionally, the `117 states: "Selection of pocket 66 or slit 60, for example, next to bottom edge 58 … determines the largest possible distance between bottom and top edges 58, 78."[17] A POSITA would easily understand that the converse is also true; selection of pocket 66 or slit 60 **furthest away** from edge 58 determines the **shortest** possible distance between bottom and top edges 58, 78. Further, a POSITA would readily understand the importance of dimensions L1, L2, L3 and the advantages posed by choosing dimensions that coordinated to stages of the child's physical development. Given that dimension L1 determines the shortest possible distance between top and bottom edges 58, 78, and therefore determines the shallowest depth of the bucket seat, it would be obvious to a POSITA to choose a dimension L1 to suit the height range of an infant.

[17] `117 pg 10 para 3, emphasis added

Anticipation and/or obviousness of Independent Claim 6 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
6 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** See claim 1 above.
6a – a body configured to support the child between the body and a torso of the user,	**Yes.** See claim 1a above.
6b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See claim 1b above.
6c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See claim 1c above.
6d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See claim 1d above.
6e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See claim 1d above.
6f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See claim 1f above.
6g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See claim 1f above.
6h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** See claim 1h above.
6i – the body forming a first thigh support and a second thigh support;	**Yes.** See claim 1i above.
6j – at least one thigh support adjuster coupled to the first thigh support and the second thigh support; and	**Yes.** See claim 1k above.
6k – a first position, a second position, and a third position defined by the adjustable child carrier,	**Yes.** See claim 1j above.
6l – wherein the first position corresponds to a first setting, the second position corresponds to a second setting, and the third position corresponds to a third setting,	**Yes.** See claim 1j above.
6m – wherein adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure the	**Yes.** See claim 1m above.

adjustable child carrier to one of the first setting, the second setting, or the third setting,	
6n – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See claim 1n above.

Anticipation and/or obviousness of Claim 7 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
7 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
7a – wherein adjustment of the at least one thigh support adjuster from the first position to the second position adjusts the length of the body from a first length to a second length,	**Yes.** See claim 1m above.
7b – the second length being greater than the first length,	**Yes.** See claim 1m above.
7c – wherein adjustment of the at least one thigh support adjuster from the second position to the third position adjusts the length of the body from the second length to a third length,	**Yes.** See claim 1m above.
7d – the third length being greater than the first length and the second length.	**Yes.** See claim 1m above.

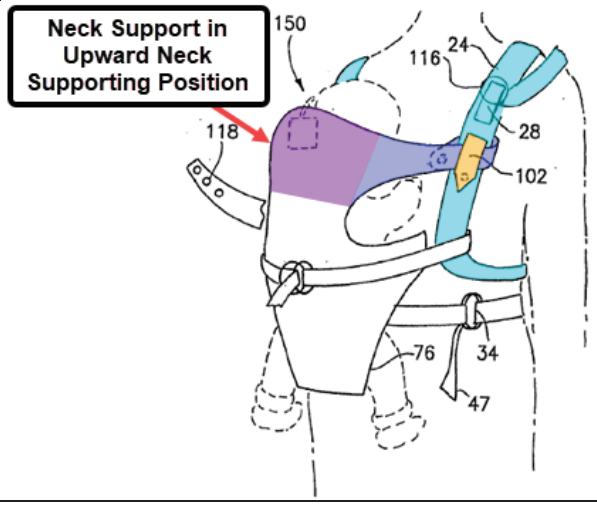
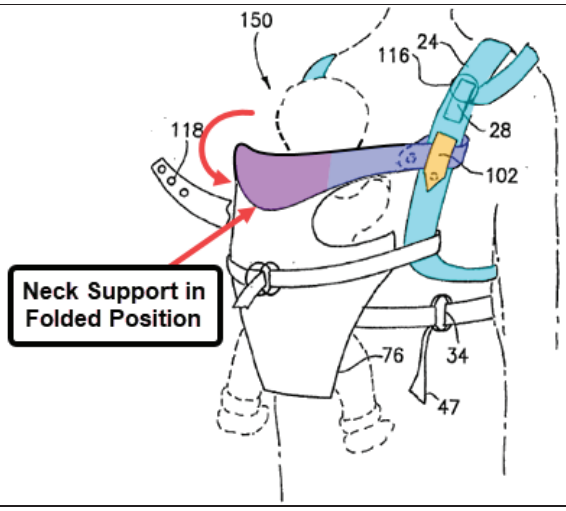
Anticipation and/or obviousness of Claim 8 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
8 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
8a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claims 1m and 1n above. Adjusting the attachment of the bottom region 54 to tether 47 inherently adjusts a depth of the bucket seat as the length between top and bottom regions 52, 54 changes.

Anticipation and/or obviousness of Claim 9 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
9 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
9a – wherein the first position is at least partially vertically displaced from the second position,	**Yes.** See claims 1j, 1m and 1n above.
9b – the second position is at least partially vertically displaced from the third position,	**Yes.** See claims 1j, 1m and 1n above.
9c – and the third position is at least partially vertically displaced from the first position,	**Yes.** See claims 1j, 1m and 1n above.

9d – wherein the adjustable child carrier defines the second position between the first position and the third position.	**Yes.** See claims 1j, 1m and 1n above.

Anticipation and/or obviousness of Claim 10 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
10 pre – The adjustable child carrier of claim 7,	**Yes.** See claim 7 above.
10a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode,	**Yes.** See claim 5a above.
10b – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5b above.

Anticipation and/or obviousness of Claim 11 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
11 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** See claim 1 above.
11a – a body configured to support the child,	**Yes.** See claim 1a above.
11b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See claim 1b above.
11c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See claim 1c above.
11d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See claim 1d above.
11e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See claim 1d above.
11f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See claim 1f above.
11g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See claim 1f above.
11h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the	**Yes.** See claim 1h above.

first attachment and the second neck support attachment is coupled to the second attachment;	
	
11i – wherein folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position;	**Yes.** Folding neck supports were well known in the art, and were well within the ordinary skill on a POSITA. As shown on the left above, the `117 discloses the neck support. The image on the right above, which is a modified image from the patent, shows how the neck support could be folded in accordance with known methods in the art with a reasonable expectation of success. Thus, it is at least obvious in light of the `117 that folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position. The `117 states: "The materials used for manufacturing inventive baby carrier unit 10 are not limited to any particular type and include, for example, **leather, cotton, corduroy and heavy-gauge nylon.**"[18] Additionally, the exemplary materials provided make it clear that both its shape and structure allow for the neck support to be folded. Further, a POSITA would readily understand that while folding the neck support, both the first and second neck support attachments are able to be detached, rotated 180° about a horizontal axis, then reattached in their now flipped orientation to hold the now folded neck support in the folded-down position. This folded-down position necessarily reduces the length of the body in relation to the upward neck supporting position.

[18] `117 pg 14 para 3, emphasis added

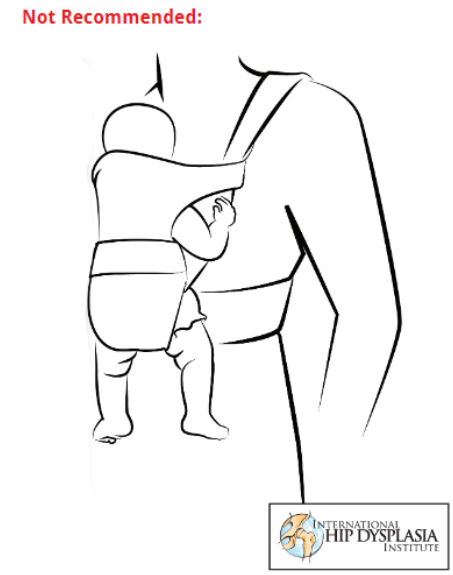
11j – the body forming a first thigh support and a second thigh support;	**Yes.** See claim 1i above.
11k – wherein the body, the first thigh support, and the second thigh support in combination form a seat for the child;	**Yes.** See claim 1b above.
11l – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** See claim 1j above.
11m – at least one thigh support adjuster coupled to the first thigh support and the second thigh support,	**Yes.** See claim 1k above.
11n – wherein selective positioning of the at least one thigh support adjuster at the first setting, the second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages,	**Yes.** See claim 1m above.
11o – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See claim 1n above.

Anticipation and/or obviousness of Claim 12 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
12 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
12a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 1m above.

Anticipation and/or obviousness of Claim 13 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
13 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
13a – wherein the first setting is at least partially vertically displaced from the second setting,	**Yes.** See claims 1j, 1m and 1n above.
13b – the second setting is at least partially vertically displaced from the third setting,	**Yes.** See claims 1j, 1m and 1n above.
13c – and the third setting is at least partially vertically displaced from the first setting,	**Yes.** See claims 1j, 1m and 1n above.
13d – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** See claims 1j, 1m and 1n above.

Anticipation and/or obviousness of Claim 14 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
14 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.

14a – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length,	**Yes.** See claim 1m above.
14b – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length,	**Yes.** See claim 1m above.
14c – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** See claim 1m above.

Anticipation and/or obviousness of Claim 15 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of US Patent Application Publication No. 2018/0199730 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
15 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
	
15a – wherein the seat is configured to support the child in a spread squat position.	**Yes.** The `117 discloses a child carrier wherein the seat is configured to support the child in a spread squat position, and it would be obvious to configure the carrier to position the child in a spread squat position based the knowledge of a person skilled in the art and/or in view of the `730 application. The `117 states: "This invention relates to a modular garment item … to provide **an ergonomically constructed** … baby carrier."[19] The `117 adds: "Despite a great number of designs of baby carrier, the requirements for optimal design remain unchanged: **improved**

[19] `117 pg 1 para 1, emphasis added

	ergonomics conducive to the desired development of the infant[.]"[20] A person skilled in the art would appreciate that the improved ergonomics described in the `117 application would include configuring the carrier to carry a child in a spread squat position. It is well known in the art that the spread squat, or "frog", position is the most ergonomic way to carry a child. For example, Lundh teaches that "Since it is recommended by pediatrics that carried children sit **in the so-called frog-position**, in which their upper legs are substantially parallel with the ground, and their knees at substantially the same level as their hips, it is advantageous for a baby carrier to provide this seating option"[21] (emphasis added). Further, it was well known to a POSITA to support a child in a spread squat position to promote natural hip development. As early as 2014, the International Hip Dysplasia Institute taught that "The healthiest position for the hips is for the hips to fall or spread (naturally) apart to the side, with the thighs supported and the hips and knees bent. This position has been called the jockey position, straddle position, frog position, spread-squat position or human position."[22] Therefore, it would be obvious to a POSITA that an **ergonomically constructed** baby carrier that carries the child in a position that is **conducive to the desired development of the infant** described in the `117**,** would have a seat configured to support the child in a spread squat position as disclosed by the `730 or the International Hip Dysplasia Institute.

Anticipation and/or obviousness of Claim 19 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of US Patent Application Publication No. 2018/0199730 and Ordinary Skill in the Art

[20] `117 pg 2 para 2, emphasis added
[21] `730 Application [0016] Emphasis Added
[22] https://web.archive.org/web/20140208144252/http:/hipdysplasia.org/developmental-dysplasia-of-the-hip/prevention/baby-carriers-seats-and-other-equipment/ (Ex. 1012)

Claim Element	Does the Prior Art have the Element?
19 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
19a – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15a above.

Anticipation and/or obviousness of Claim 20 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of US Patent Application Publication No. 2018/0199730 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
20 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
20a – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15a above.

Anticipation and/or obviousness of Claim 21 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
21 pre – The adjustable child carrier of claim 5,	**Yes.** See claim 5 above.

Age	Male baby	Female baby
Birth	19.69 in (50 cm)	19.29 in (49 cm)
1 month	21.65 in (55 cm)	21.26 in (54 cm)
2 months	23.03 in (58.5 cm)	22.44 in (57 cm)
3 months	24.21 in (61.5 cm)	23.62 in (60 cm)
4 months	25.20 in (64 cm)	24.41 in (62 cm)
5 months	25.98 in (66 cm)	25.20 in (64 cm)
6 months	26.77 in (68 cm)	25.48 in (66 cm)
7 months	27.17 in (69 cm)	26.38 in (67 cm)
8 months	27.95 in (71 cm)	27.17 in (69 cm)
9 months	28.35 in (72 cm)	27.56 in (70 cm)
10 months	28.74 in (73 cm)	28.15 in (71.5 cm)
11 months	29.33 in (74.5 cm)	28.74 in (73 cm)
12 months	29.92 in (76 cm)	29.13 in (74 cm)

[23]

21a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to	**Yes.** A POSITA would understand that the third setting is appropriate for accommodating a larger child than the first and second settings, including

[23] *What is the average length for a baby?*, MedicalNewsToday, updated March 31, 2023 (last viewed August 5, 2024) https://www.medicalnewstoday.com/articles/324728#average-lengths (Ex. 1010)

carry the child when the child has a height of at least 28 inches.	children in the height range claimed here (e.g., 6-12 months). A POSITA would have understood a toddler to be a child that is just learning to walk, typically approximately starting at or around the 1 year of age mark. As reported in the Medical News Today, shown above, children reach a height of 28 inches around 9-10 months. The '117 patent's three height settings would capture or be obvious to employ on a child in this age/height range. Put another way, nothing in the '117 patent indicates that it is exclusively for use by infants and children shorter that 28 inches. To the extent the `117 patent does not explicitly disclose a toddler mode, a toddler mode would have been obvious to a POSITA because this references shows varying height settings and a POSITA would understand that the third setting could be designed to accommodate a child of at least 28 inches in height, and doing so is often done in the art and would be well within the ordinary skill of a POSITA.

Anticipation and/or obviousness of Claim 22 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
22 pre – The adjustable child carrier of claim 10,	**Yes.** See claim 10 above.
22a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 23 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
23 pre – The adjustable child carrier of claim 14,	**Yes.** See claim 14 above.
23a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claims 5a and 5b above.

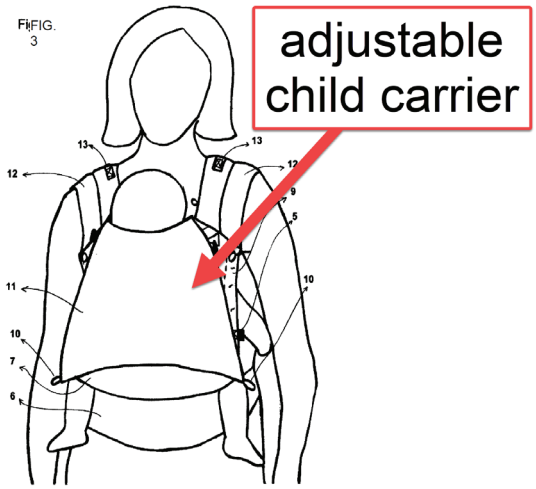
Anticipation and/or obviousness of Claim 24 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
24 pre – The adjustable child carrier of claim 23,	**Yes.** See claim 23 above.
24a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 28 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
28 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
28a – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** See claim 1j above.

Anticipation and/or obviousness of Claim 29 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
29 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
29a – wherein each of the first position, the second position, and the third position is visible to the user for the adjustment of the at least one thigh support adjuster.	**Yes.** See claim 1j above.

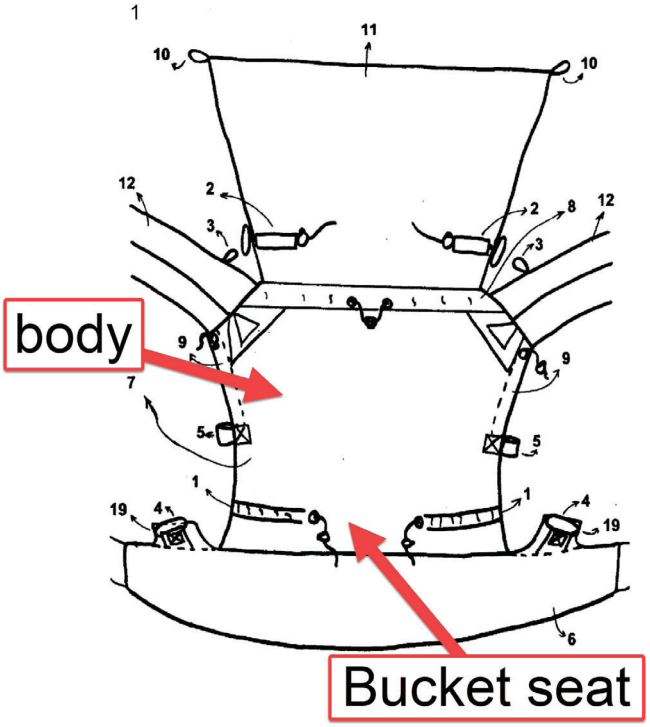
Anticipation and/or obviousness of Claim 30 of the US Patent No. 11,786,055 over the PCT Patent Application Publication No. WO 2006/116117 in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
30 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
30a – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** See claim 1j above.

APPENDIX C

<table>
<tr><th colspan="2">Anticipation and/or obviousness of Claim 1 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art</th></tr>
<tr><th>Claim Element</th><th>Does the Prior Art have the Element?</th></tr>
<tr><td colspan="2"> 

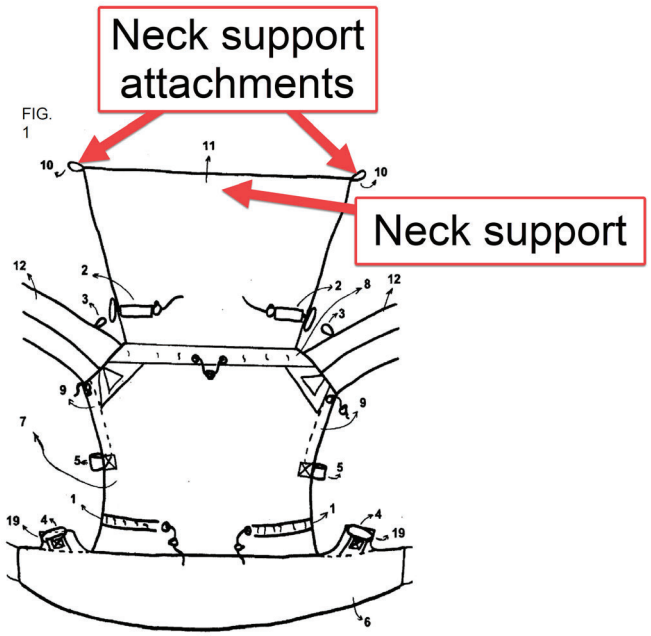
“[0001] This invention concerns an ergonomically <u>adjustable baby and toddler carrier designed to transport babies</u> and toddlers up to approximately 15 kg in both front and back carrying positions.” (emphasis added)</td></tr>
<tr><td>1pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising</td><td>Yes. The `620 discloses an adjustable child carrier for supporting a child by a user.</td></tr>
</table>

FIG.
1



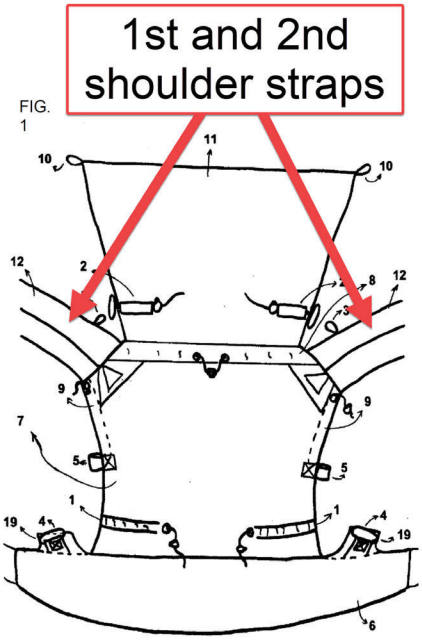
Discloses a child carrier including a back panel 7 (i.e., a **"body"**) that "forms a more pronounced pouch [i.e., a **"bucket seat"**] when the bridge reduction is used, further supporting the squat-spread posture. [i.e., **"to support legs of the child"**]." Paragraph [0030].

1a – a body configured to support the child, **1b** – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** The `620 discloses a body configured to support the child.  Further, the `620 discloses that the body forms a bucket seat, which is configured to support the legs of the child.



Paragraph [0034]: "This headrest 11 [i.e., **"neck support"**] is raised and secured using two loops 10 [i.e., a **"first neck support attachment"** and a **"second neck support attachment"**] attached to the left and right outermost ends of the headrest 11, with approximately 40 cm long straps 13 attached to the shoulder straps 12."

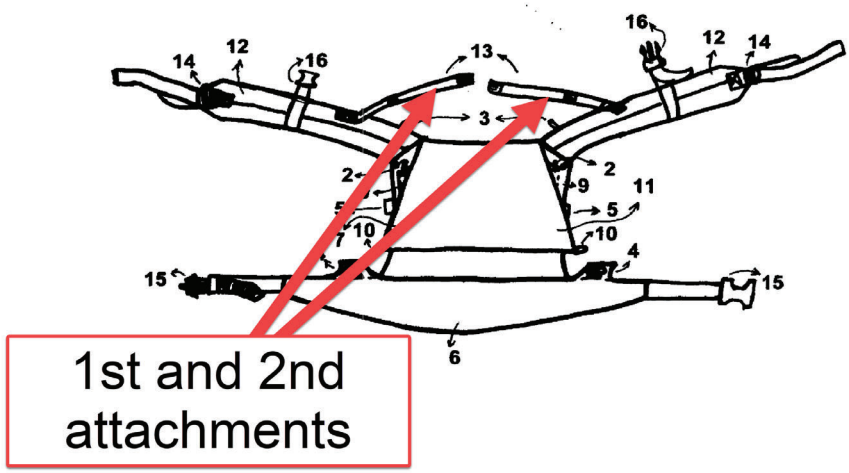
1c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** The `620 discloses a neck support comprising a first neck support attachment and a second neck support attachment.



Paragraph [0022]: "The invention relates to a carrying aid, which consists of … and two shoulder straps 12 also padded with foam." (i.e., a **"first should strap"** and a **"second shoulder strap"**).

1d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user; **1e** – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** The `620 discloses a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user.  The `620 further discloses a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user.

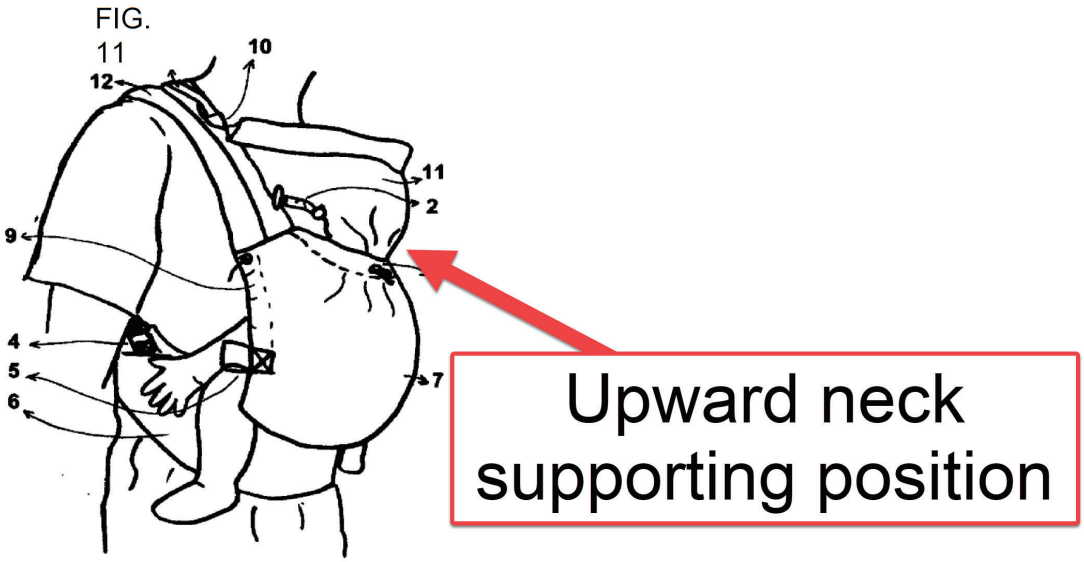
FIG. 2



Paragraph [0034]: "This headrest 11 is raised and secured using two loops 10 attached to the left and right outermost ends of the headrest 11, with approximately 40 cm long straps 13 [i.e., a **"first attachment"** and a **"second attachment"**] attached to the shoulder straps 12."

The straps 13 are configured to receive the loops 10 for securement of the headrest 11 to the shoulder straps 12.

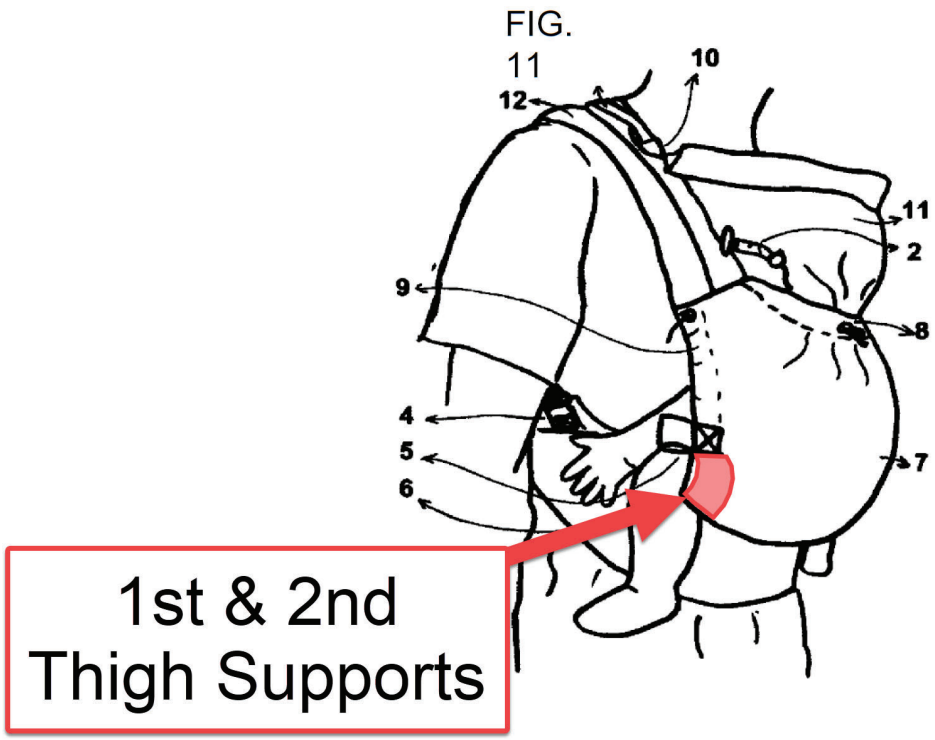
1f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment; **1g** – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment	**Yes.** The `620 discloses a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment.  The `620 further discloses a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment.



Para. 0034: "This headrest 11 is raised [i.e., **"an upward neck supporting position"**] and secured using two loops 10 attached to the left and right outermost ends of the headrest 11, with approximately 40 cm long straps 13 attached to the shoulder straps 12."

When extended upwardly and connected to the shoulder straps 12, the headrest 11 is positioned behind the child's head and neck for support.

1h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** The `620 discloses that the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment.

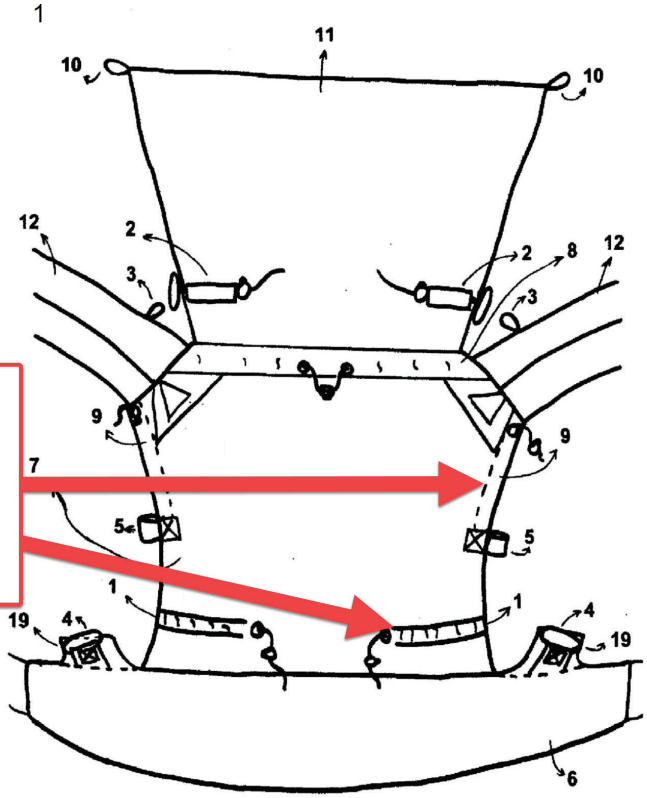


Discloses lateral ends or edges of the carrier or pouch supporting the child's thighs (i.e., a **"first thigh support"** and a **"second thigh support"**).

E.g., paragraph [0029]: "This bridge reduction 1 allows for stepless adjustment of the seat bridge, which can be set between approximately 42 cm and 22 cm in length. This ensures that the seat bridge **lies exactly between the knees of smaller children**." *See also* paragraph [0029]: "The seat bridge **should extend from knee pit to knee pit.**"

1i – the body forming a first thigh support and a second thigh support;	**Yes.** The `620 discloses that the body forms a first thigh support and a second thigh support.

FIG. 1



1st, 2nd, & 3rd Settings via drawstrings 1/9

Adjustment of the bar reduction 1 defines at least 3 settings: a fully loose setting, a fully tightened setting, and at least one setting between fully loose and fully tightened (i.e., **"a first setting, a second setting, and a third setting"**).

E.g., paragraph [0030]: "When the bridge reduction 1 is used, the described design simultaneously shortens the back panel vertically, **further adjusting the size for smaller children**.

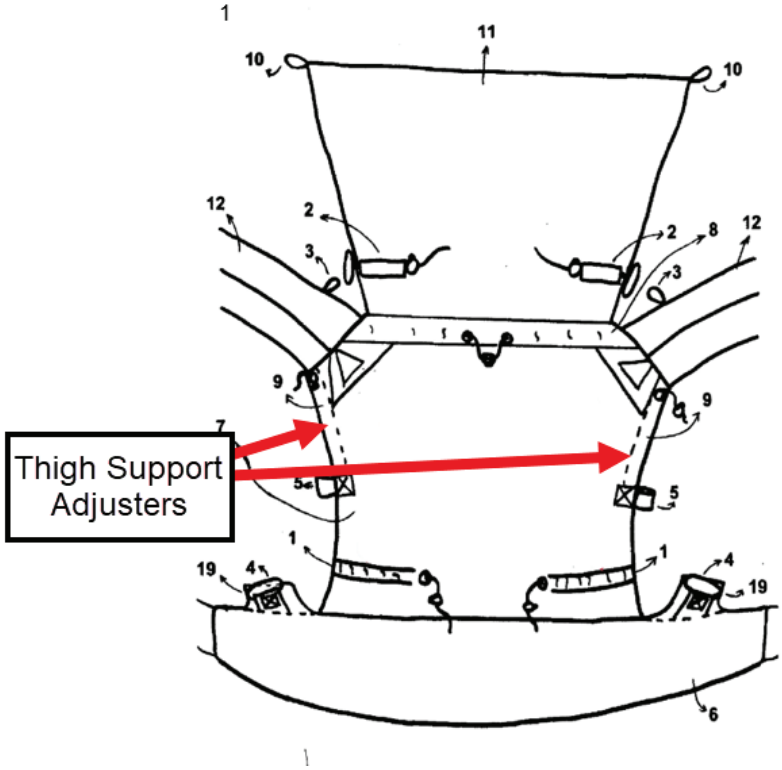
E.g., paragraph [0019]: "The carrying device is further characterized by drawstrings 9 positioned on the left and right sides in the upper area of the back panel 7."

1j – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** The `620 discloses a first setting, a second setting, and a third setting defined by the adjustable child carrier. While the `620 utilizes continuously adjustable means (e.g. drawstrings 1) for making adjustments, it clearly specifies that discrete setting systems could be used: "Instead of the preferred drawstring design, a strap could be sewn in… using a clamp ladder buckle… Alternatively, a fastening system using snap buckles, hooks, buttons or hook and loop fasteners could be used."[1]

[1] '620 [0031]

	Further, a POSITA would be aware of and be able to implement both continuous and discrete adjustment means, and could do so with every expectation of success as it is nothing more than a design choice.

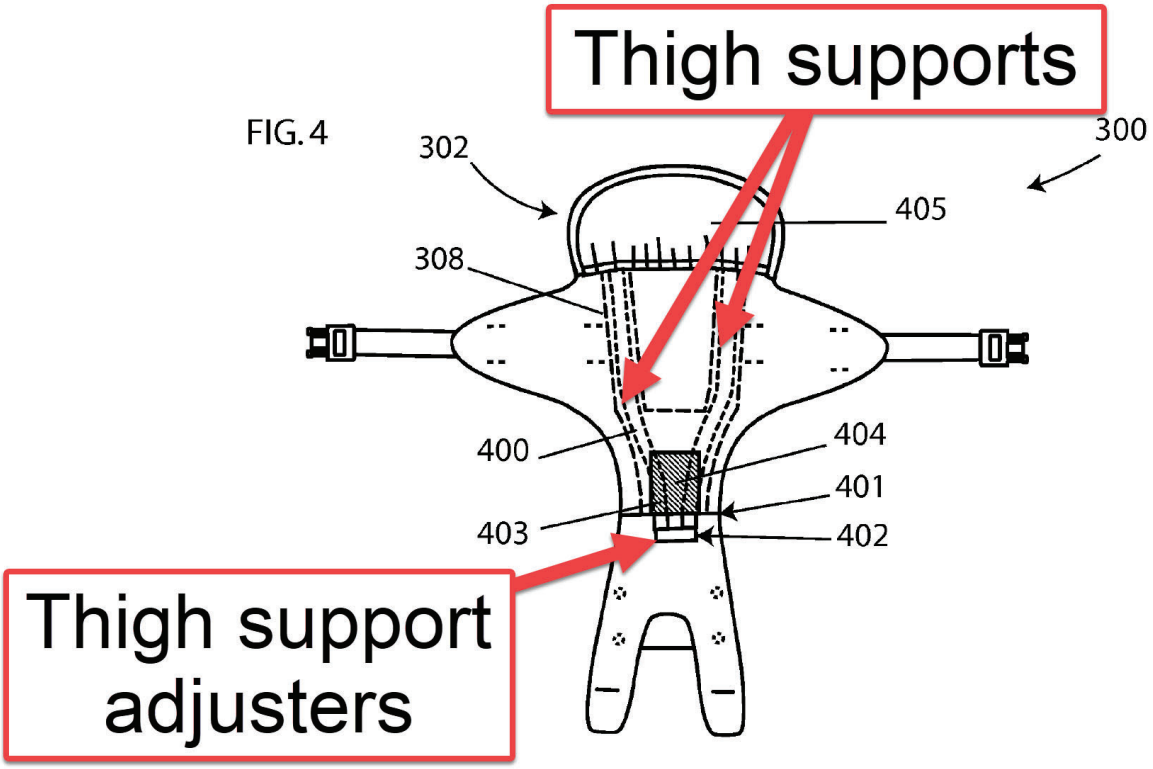
FIG. 1



Discloses multiple drawstrings 1 that adjust the thigh support areas of the carrier (i.e., **"at least one thigh support adjuster"**).

E.g., paragraph [0017]: "The backpack carrier according to claim 1 is characterized by a bridge reduction that, in the preferred embodiment, is achieved by two drawstrings 1, which are positioned left and right in the lower area of the back panel 7, just above the padded hip belt 6. These drawstrings run toward the center of the back panel, and when tightened, reduce the bridge width (shown in FIG. 7)."

E.g., paragraph [0017]: "The bridge reduction is implemented using a drawstring system with cords or straps sewn into the edges of the back panel 7, which are pulled outward in the direction of the center of the back panel 7 through eyelets and secured with cord stoppers. However, other fastening systems, such as straps with ladder locks, hook-and-loop fasteners, or snaps, could also be used."



The `972 discloses a child carrier having retractable drawstrings 400 extending under the child's thighs (i.e., **"thigh supports"**), such as "disposed within channels that form a generally V-shaped configuration." Paragraph [0026].

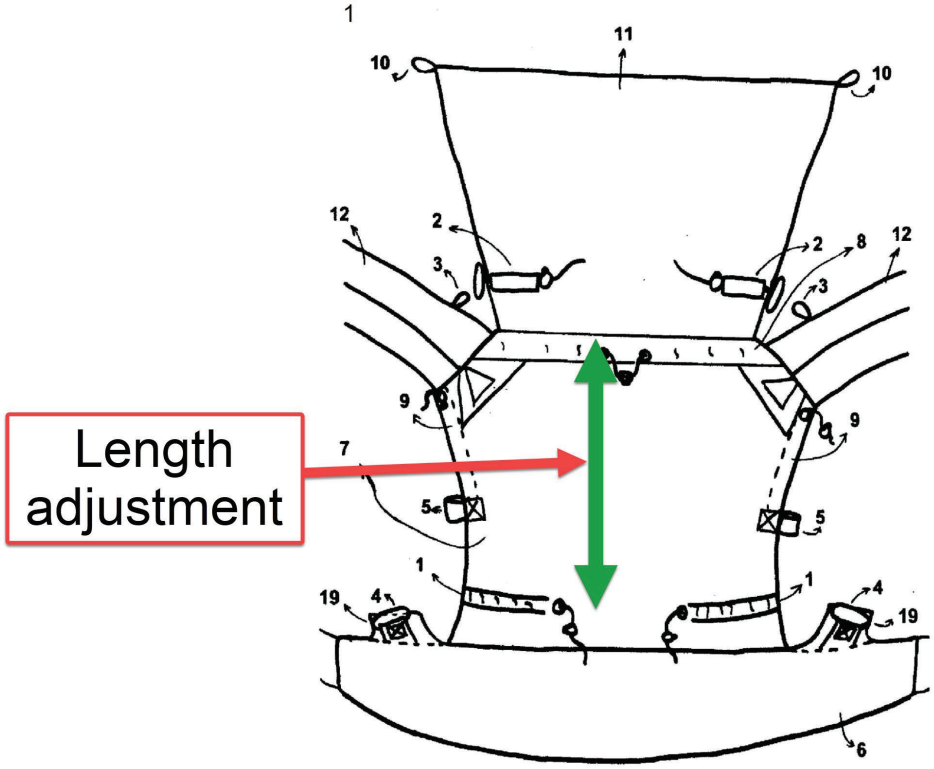
A pull tab 402 (i.e., **"at least one thigh support adjuster"**) is coupled to the drawstrings 400, such as to adjust both drawstrings 400 simultaneously. *E.g.*, paragraph [0026]: "The retractable drawstrings 400 may be attached at their ends to a portion of the back 302 portion of the pouch system 300 that extends to an opening 401 where a strip comprising a pull tab 402 is attached at the apex of the V-shaped configuration." By pulling tab 402, the backrest is shortened.

A POSITA, in order to allow a simultaneous and equal adjustment of the thigh supports of `620 would have been motivated to employ the pull tab 402 of the `972 patent. It would have been obvious to have a single pull tab attached to the ends of drawstrings 1 of AT 11620 U2, such as to adjust both thigh supports simultaneously (e.g., for one-handed adjustment while the other hand supports the baby), and to provide equal thigh support adjustment on both sides of carrier.

1k – at least one thigh support adjuster coupled to the first thigh support and the second thigh support, This analysis shows the thigh support adjuster under either the First Construction or the Third Construction.	**Yes.** The `620, similar to the thigh support adjuster in the `055 patent that is only coupled to one thigh support, does not disclose a thigh support adjuster coupled to both the first thigh support and the second thigh support. However, the `620 does disclose a first thigh support adjuster coupled to the first thigh support and a second thigh support adjuster coupled to the second thigh support.

	The `972 does disclose at least one thigh support adjuster coupled to the first thigh support and the second thigh support as shown above.

FIG. 1



Selective positioning of either bar reduction 1 or drawstrings 9 to different settings will adjust a length of the body (e.g., "vertical shortening or lengthening of the back panel"), such as via gathering of the back panel material via drawstrings 9 and/or shortening the back panel by pulling its lateral edges inwardly by shortening bridge reduction 1.

E.g., paragraph [0030]: "When the bridge reduction 1 is used, the described design simultaneously **shortens the back panel vertically**, further adjusting the size for smaller children." (emphasis added).

E.g., paragraph [0019]: "The carrying device is further characterized by drawstrings 9 positioned on the left and right sides in the upper area of the back panel 7…"

As shown above, the `620 alone discloses element 1m. Further, the `620 in view of the `972 renders element 1m obvious as shown below:

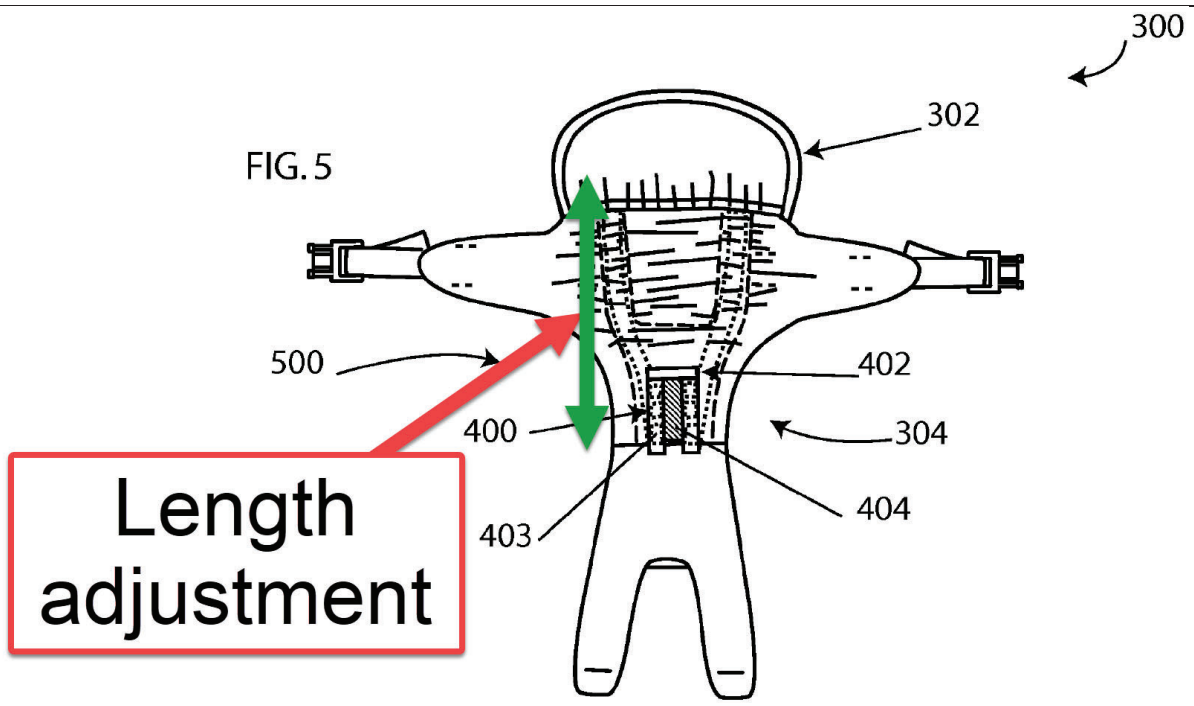
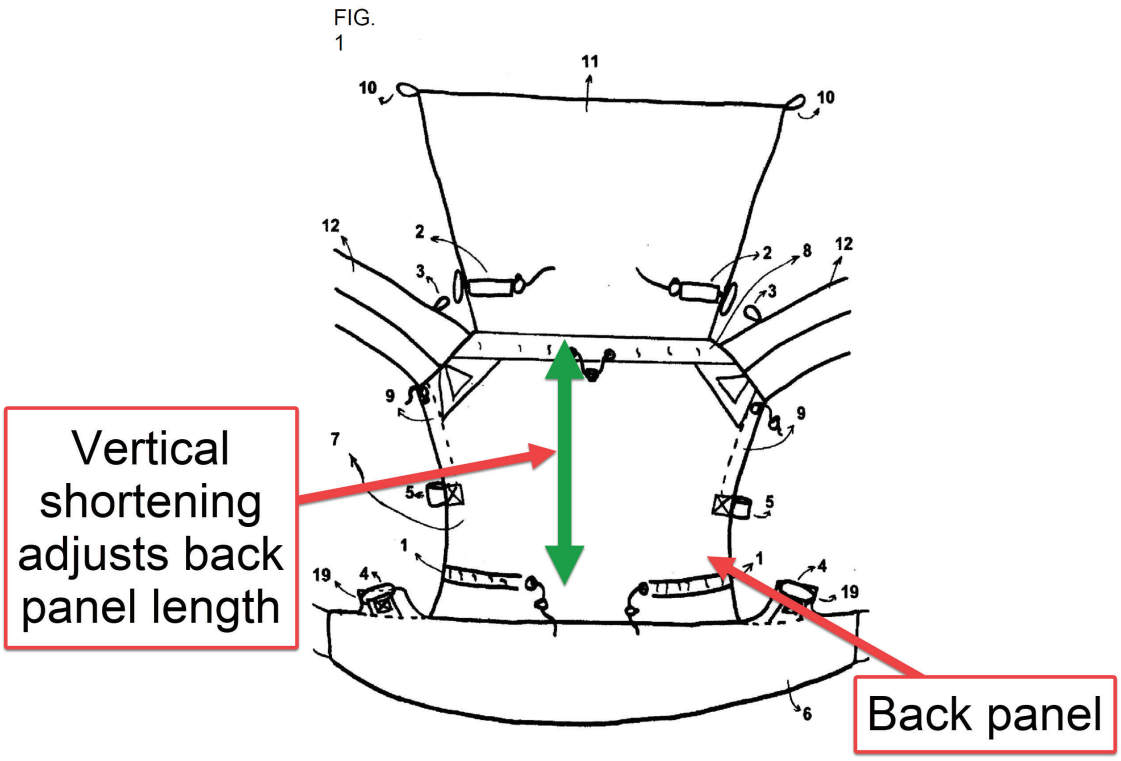


FIG. 5 of the `972 shows that an actuation of the drawstrings results in a gathering of material in the back portion 302 which adjusts the length of the body.

See also paragraph [0006]: "The pouch may be adjusted to fit an infant by utilizing a retractable drawstring system disposed in the seat portion and adjustable straps disposed in the side portions both of which may be adjusted to provided more or less depth and width for the infant."

1m – wherein the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages,	**Yes.** The `620 alone discloses, and the `620 in view of the `972 renders obvious, that the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages.



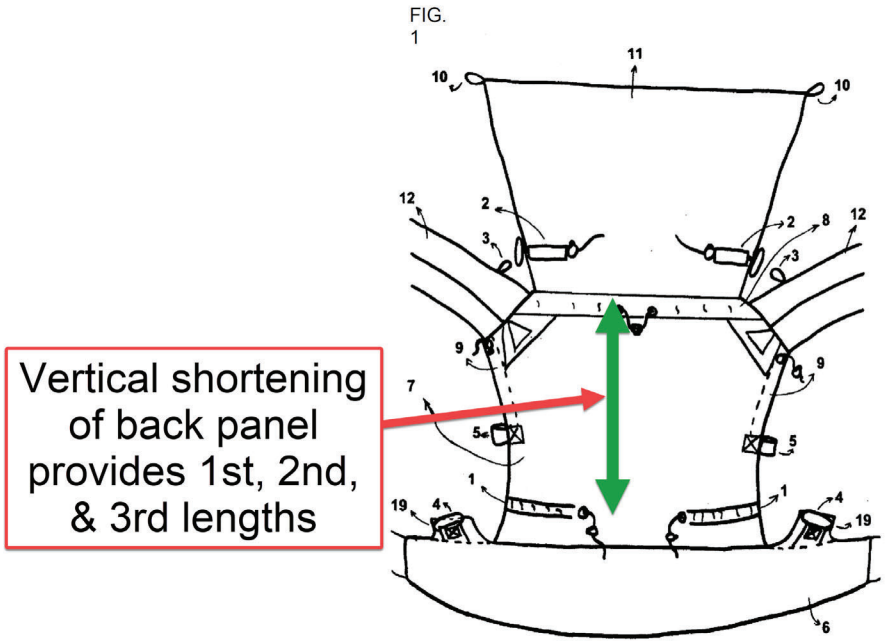
Selective positioning of bar reduction 1 or drawstrings 9 to different settings will adjust the length of the body from the bottom of the seat to the top of the body (e.g., "vertical shortening of the back panel"), such as via gathering of the back panel material via drawstrings 9 and/or shortening the back panel as its lateral edges are pulled inward via bar reduction 1.

E.g., paragraph [0030]: "When the bridge reduction 1 is used, the described design simultaneously **shortens the back panel vertically**, further adjusting the size for smaller children." (emphasis added).

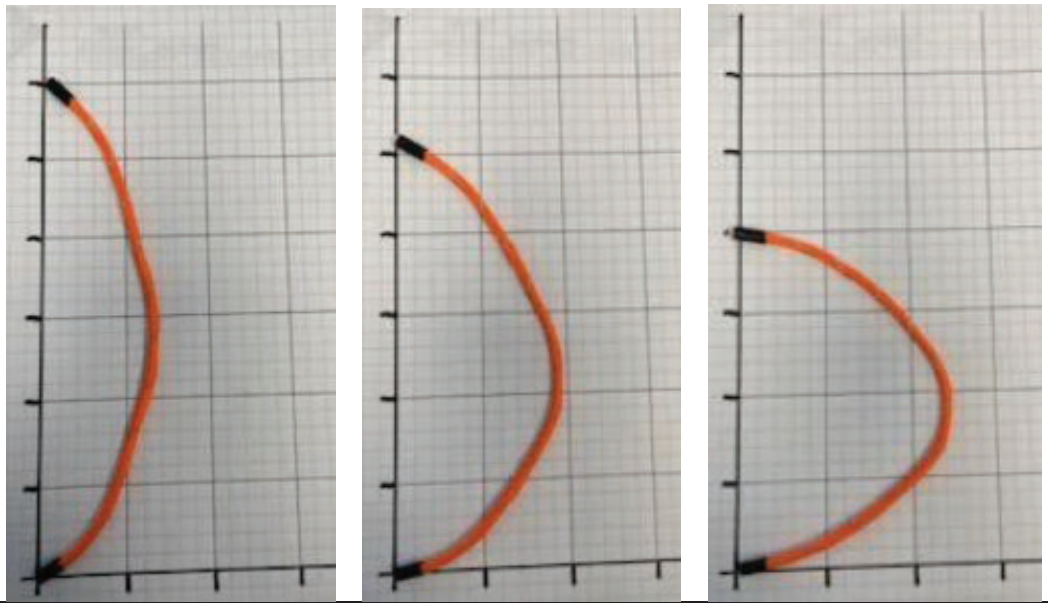
E.g., paragraph [0019]: "The carrying device is further characterized by drawstrings 9 positioned on the left and right sides in the upper area of the back panel 7…"

1n – wherein the length is defined from a bottom of the bucket seat to a top of the body.	**Yes.** The `620 discloses that the length is defined from a bottom of the bucket seat to a top of the body.

Anticipation and/or obviousness of Claim 2 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
2pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.



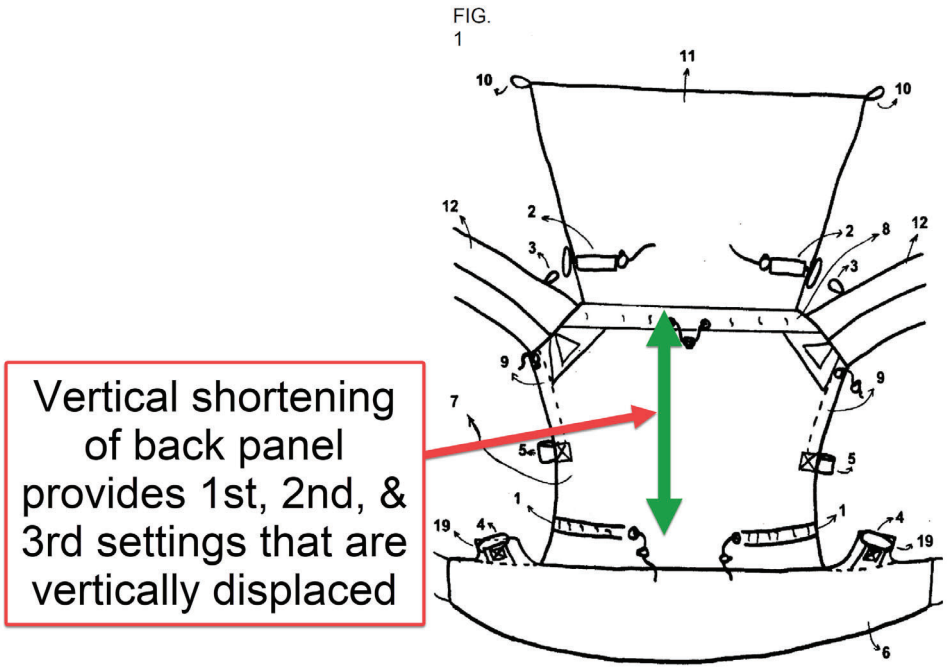
Selective positioning of bar reduction 1 or drawstrings 9 to different settings will adjust the back panel length to at least three lengths. As shown below, as the length of the remains consistent, as the material is drawn toward the center, the height decreases. In the images below, the length of the side is represented by the orange string, with a portion being pulled further toward the center in each picture moving left to right, by bridge reduction 1.



2a – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length, **2b** – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length, **2c** – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** The `620 discloses that selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length.  Further, the `620 discloses selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length. Further, the `620 discloses selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.

Anticipation and/or obviousness of Claim 3 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
3 pre – The child carrier of claim 1,	**Yes.** See claim 1 above.
The `620 discloses use of bridge reduction 1 to create a more pronounced pouch (i.e., increasing the depth of the seat). *E.g.*, paragraph [0030]: "Additionally, the back panel forms **a more pronounced pouch** when the bridge reduction is used, further supporting the squat-spread posture." (emphasis added). As shown above, the `620 alone discloses element 3a. Further, The `620 in view of the `972 renders element 3a obvious.  For example, the `972 discloses a pouch adjustment to adjust a seat depth. E.g., paragraph [0006]: "The pouch may be adjusted to fit an infant by utilizing a retractable drawstring system disposed in the seat portion and adjustable straps disposed in the side portions both of which may be adjusted to provide more or less depth and width for the infant."	
3a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** The `620 discloses that adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.

Anticipation and/or obviousness of Claim 4 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
4 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.



Vertical shortening of the back panel results in different settings (e.g., different locked positions of bridge reduction 1) that are vertically displaced from one another. Vertical displacement requires a frame of reference. The `055 patent does not provide a frame of reference for the vertical displacement except from one setting to the next. Here, assuming the shoulder straps stay at the same place, when the bridge reduction 1 is tightened, the height of the back rest is decreased, and the location of the drawstring cord stoppers moves closer to the shoulder straps, in a vertical direction. When the bridge reduction 1 is loosened, the cord stoppers move further from the shoulder straps.

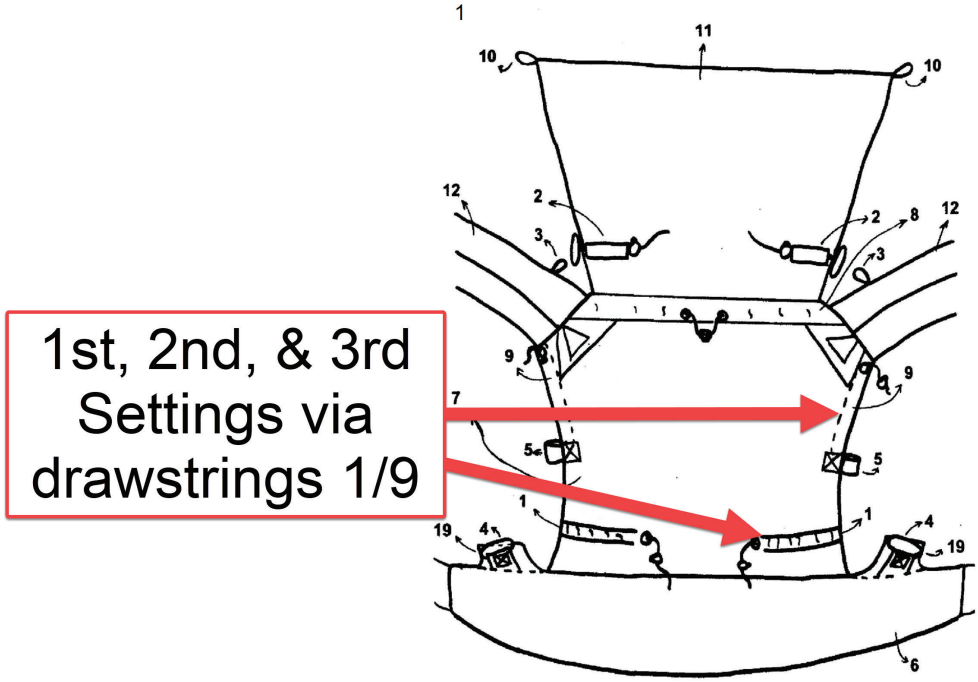
4a – wherein the first setting is at least partially vertically displaced from the second setting, **4b** – the second setting is at least partially vertically displaced from the third setting, **4c** – and the third setting is at least partially vertically displaced from the first setting, **4d** – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** The `620 discloses that the first setting is at least partially vertically displaced from the second setting.  Further, the `620 discloses that the second setting is at least partially vertically displaced from the third setting. Further, the `620 discloses that the third setting is at least partially vertically displaced from the first setting.  Further, the `620 discloses that the third setting is at least partially vertically displaced from the first setting.

Anticipation and/or obviousness of Claim 5 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
5 pre – The adjustable child carrier of claim 2,	**Yes.** See claim 2 above.
The `620 teaches: Para. [0001]: "This invention concerns an ergonomically adjustable baby and toddler carrier **designed to transport babies** and toddlers up to approximately 15 kg in both front and back carrying positions." (emphasis added). A height range of 20-24 inches is average/standard for a 0-3 month infant. *See, e.g., What is the average length for a baby?*, MedicalNewsToday, updated March 31, 2023 (last viewed August 5, 2024), available at https://www.medicalnewstoday.com/articles/324728 (Ex. 1010). Similarly, the `972 teaches: [Para. 0006]: "The detachable adjustable pouch system may form a seat **for supporting an infant** in a substantially upright seated position that may be adjusted to accommodate an infant of varying sizes" (emphasis added).	
5a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, **5b** – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** The `620 alone discloses, and the `620 in view of the `972 renders obvious, adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode.  Further, the `620 alone discloses, and the `620 in view of the `972 renders obvious, that in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.

Anticipation and/or obviousness of Independent Claim 6 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
6 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** See claim 1 pre above.
6a – a body configured to support the child between the body and a torso of the user,	**Yes.** See element 1a above. Further, figure 3 of the `620 shows that the child is supported between the body and torso of the user as is ubiquitous in child carrier design.
6b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See element 1b above.

6c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See element 1c above.
6d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See element 1d above.
6e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See element 1e above.
6f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See element 1f above.
6g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See element 1g above.
6h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** See element 1h above.
6i – the body forming a first thigh support and a second thigh support;	**Yes.** See element 1i above.
6j – at least one thigh support adjuster coupled to the first thigh support and the second thigh support; and	**Yes.** See element 1k above.

FIG. 1



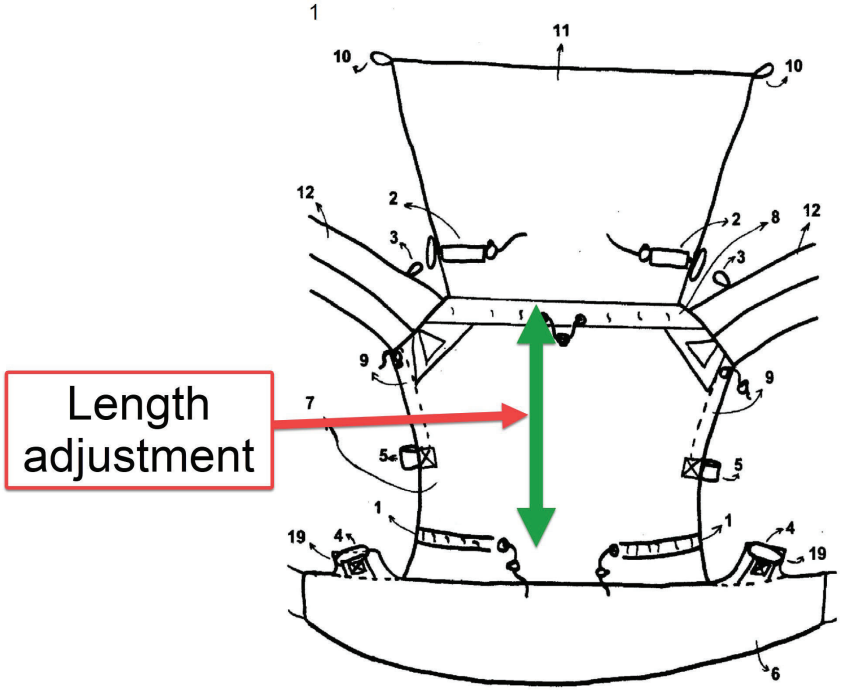
Adjustment of the bar reduction 1/drawstrings 9 defines at least 3 settings: a fully loose setting, a fully tightened setting, and at least one setting between fully loose and fully tightened (i.e., **"a first setting, a second setting, and a third setting"**).

E.g., paragraph [0030]: "When the bridge reduction 1 is used, the described design simultaneously shortens the back panel vertically, **further adjusting the size for smaller children**."

E.g., paragraph [0019]: "The carrying device is further characterized by drawstrings 9 positioned on the left and right sides in the upper area of the back panel 7 …"

6k – a first position, a second position, and a third position defined by the adjustable child carrier, **6l** – wherein the first position corresponds to a first setting, the second position corresponds to a second setting, and the third position corresponds to a third setting,	**Yes.** The `620 discloses a first position, a second position, and a third position defined by the adjustable child carrier.  The `620 further discloses that the first position corresponds to a first setting, the second position corresponds to a second setting, and the third position corresponds to a third setting.

FIG. 1



Selective positioning of bar reduction 1 or drawstrings 9 to different settings will adjust a length of the body (e.g., "vertical shortening of the back panel"), such as via gathering of the back panel material via drawstrings 9 and/or shortening the back panel as its lateral edges are pulled inward via bar reduction 1.

E.g., paragraph [0030]: "When the bridge reduction 1 is used, the described design simultaneously **shortens the back panel vertically**, further adjusting the size for smaller children." (emphasis added).

E.g., paragraph [0019]: "The carrying device is further characterized by drawstrings 9 positioned on the left and right sides in the upper area of the back panel 7 …"

As shown above the `620 alone discloses element 6m. Further, the `620 in view of the `972 renders element 6m obvious as shown below:

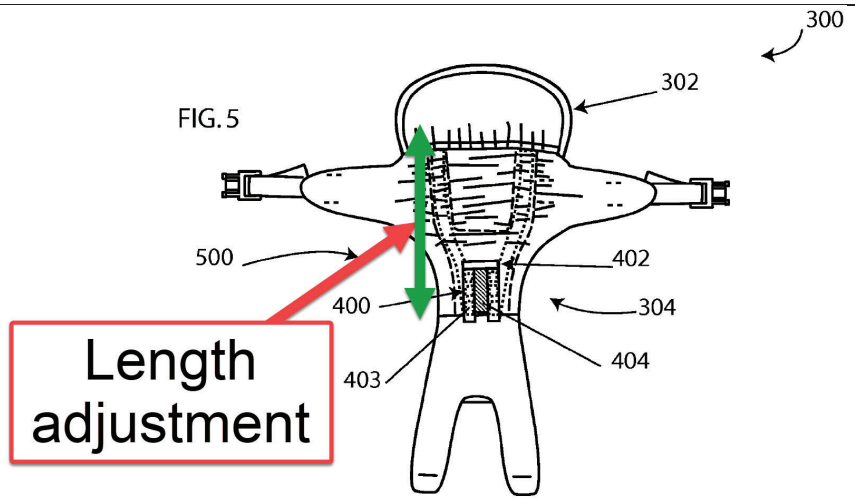


FIG. 5 shows a gathering of material in the back portion 302 to adjust a length of the body with adjustment of drawstrings 400.

See also paragraph [0006]: "The pouch may be adjusted to fit an infant by utilizing a retractable drawstring system disposed in the seat portion and adjustable straps disposed in the side portions both of which may be adjusted to provided more or less depth and width for the infant."

6m – wherein adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure the adjustable child carrier to one of the first setting, the second setting, or the third setting,	**Yes.** The `620 alone discloses, and the `620 in view of the `972 renders obvious, adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure the adjustable child carrier to one of the first setting, the second setting, or the third setting.
6n – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See element 1n.

Anticipation and/or obviousness of Claim 7 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**

7 pre – "The adjustable child carrier of claim 6, **7a** – "wherein adjustment of the at least one thigh support adjuster from the first position to the second position adjusts the length of the body from a first length to a second length, **7b** – "the second length being greater than the first length, **7c** – "wherein adjustment of the at least one thigh support adjuster from the second position to the third position adjusts the length of the body from the second length to a third length, **7d** – "the third length being greater than the first length and the second length.	**Yes.** See claim 2 above.

Anticipation and/or obviousness of Claim 8 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
8 pre – The adjustable child carrier of claim 6, **8a** – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 3 above.

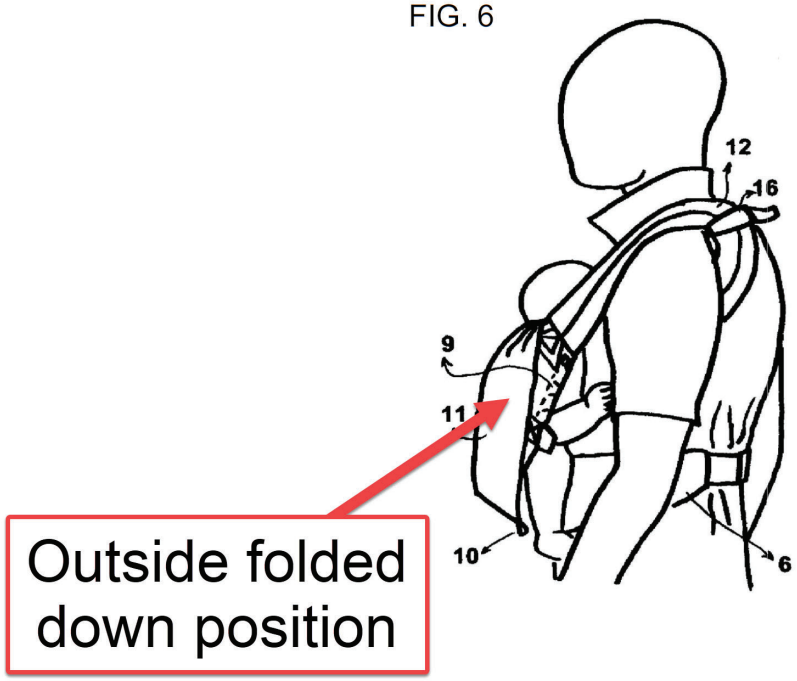
Anticipation and/or obviousness of Claim 9 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
9 pre – The adjustable child carrier of claim 6, **9a** – wherein the first position is at least partially vertically displaced from the second position, **9b** – the second position is at least partially vertically displaced from the third position, **9c** – and the third position is at least partially vertically displaced from the first position, **9d** – wherein the adjustable child carrier defines the second position between the first position and the third position.	**Yes.** See claim 4 above.

Anticipation and/or obviousness of Claim 10 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**

10 pre – The adjustable child carrier of claim 7, **10a** – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, **10b** – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

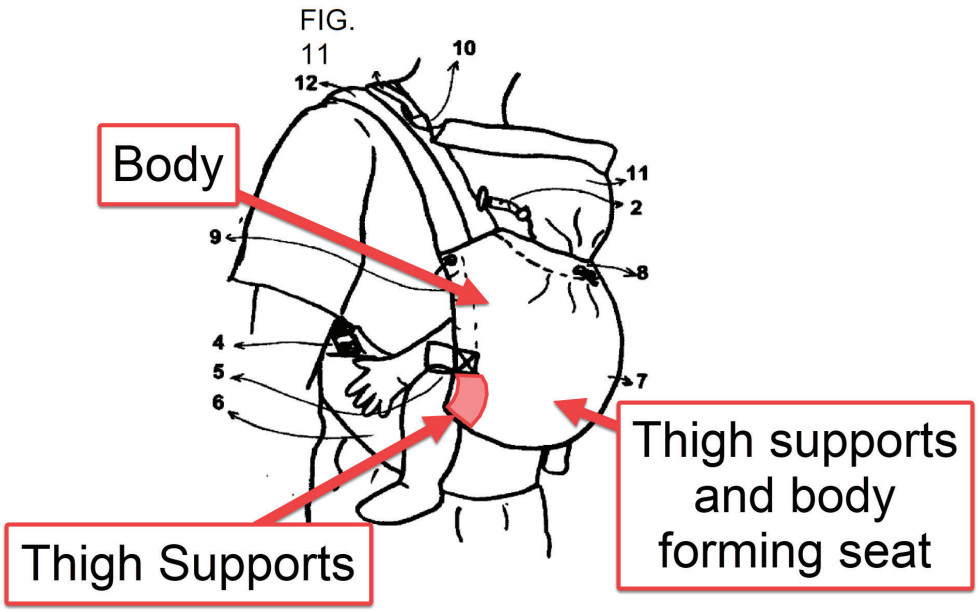
Anticipation and/or obviousness of Independent Claim 11 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
11 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** See claim 1 pre above.
11a – a body configured to support the child,	**Yes.** See element 1a above.
11b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See element 1b above.
11c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See element 1c above.
11d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See element 1d above.
11e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See element 1e above.
11f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See element 1f above.
11g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See element 1g above.
11h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** See element 1h above.

FIG. 6



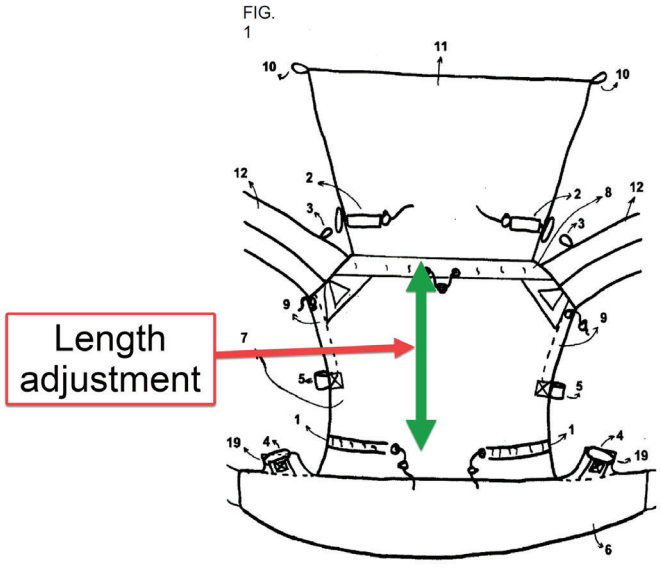
Shows headrest 11 folded down and away from the user (e.g., when loops 10 disconnected from straps 13), configuring the headrest 11 in an outside folded down position and reducing a body length compared to the upward neck supporting position. The description of Figure 2 of the `620 application also notes that the carrier has "the headrest hanging down."

11i – wherein folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position;	**Yes.** The `620 discloses that folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position.



The body and thigh supports, in combination, form the seat for the child.

11j – the body forming a first thigh support and a second thigh support;	**Yes.** See element 1i.
11k – wherein the body, the first thigh support, and the second thigh support in combination form a seat for the child;	**Yes.** The `620 discloses that the body, the first thigh support, and the second thigh support in combination form a seat for the child;
11l – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** See element 1j above.
11m – at least one thigh support adjuster coupled to the first thigh support and the second thigh support,	**Yes.** See element 1k above.



Selective positioning of bar reduction 1 or drawstrings 9 to different settings will adjust a length of the body (e.g., "vertical shortening of the back panel"), such as via gathering of the back panel material via drawstrings 9 and/or shortening the back panel as its lateral edges are pulled inward via bar reduction 1.

E.g., paragraph [0030]: "When the bridge reduction 1 is used, the described design simultaneously **shortens the back panel vertically**, further adjusting the size for smaller children." (emphasis added).

E.g., paragraph [0019]: "The carrying device is further characterized by drawstrings 9 positioned on the left and right sides in the upper area of the back panel 7 …"

As shown above, the `620 alone discloses element 11n. Further The `620 in view of the `972 renders element 11n obvious as shown below:

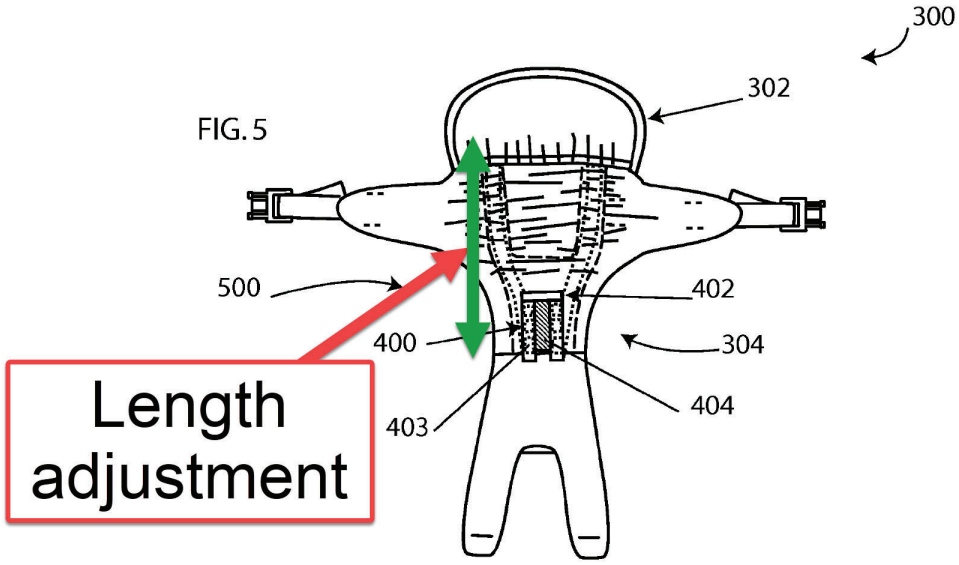


FIG. 5 shows a gathering of material in the back portion 302 to adjust a length of the body with adjustment of drawstrings 400.

See also paragraph [0006]: "The pouch may be adjusted to fit an infant by utilizing a retractable drawstring system disposed in the seat portion and adjustable straps disposed in the side portions both of which may be adjusted to provided more or less depth and width for the infant."

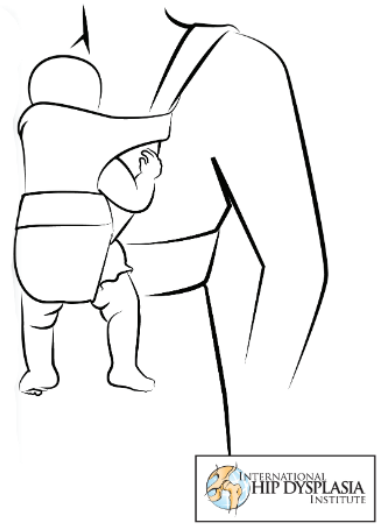
11n – wherein selective positioning of the at least one thigh support adjuster at the first setting, the second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages,	**Yes.** The `620 alone discloses, and The `620 in view of The `972 renders obvious, that selective positioning of the at least one thigh support adjuster at the first setting, the second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages.
11o – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See element 1n above.

Anticipation and/or obviousness of Claim 12 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
12 pre – "The adjustable child carrier of claim 11, **12a** – "wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 3 above.

Anticipation and/or obviousness of Claim 13 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
13 pre – The adjustable child carrier of claim 11, **13a** – wherein the first setting is at least partially vertically displaced from the second setting, **13b** – the second setting is at least partially vertically displaced from the third setting, **13c** – and the third setting is at least partially vertically displaced from the first setting, **13d** – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** See claim 4 above.

Anticipation and/or obviousness of Claim 14 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
14 pre – The adjustable child carrier of claim 11, **14a** – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length, **14b** – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length, **14c** – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** See claim 2 above.

Anticipation and/or obviousness of Claim 15 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**

15 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
Paragraph [0029]: "The correct width of the seat bridge is essential for achieving the **healthy squat-spread posture**, which contributes to good hip development." (emphasis added). Paragraph [0030]: "Additionally, the back panel forms a more pronounced pouch when the bridge reduction is used, further **supporting the squat-spread posture**." (emphasis added). **Not Recommended:**  **Better:** 	
15a – wherein the seat is configured to support the child in a spread squat position.	**Yes.** The `620 discloses that the seat is configured to support the child in a spread squat position. Further, it was well known to a POSITA to support a child in a spread squat position to promote natural hip development. As early as 2014, the International Hip Dysplasia Institute taught that "The healthiest position for the hips is for the hips to fall or spread (naturally) apart to the side, with the thighs supported and the hips and knees bent. This position has been called the jockey position, straddle position, frog position, spread-squat position or human position."[2]

Anticipation and/or obviousness of Claim 19 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
19 pre – The adjustable child carrier of claim 1, **19a** – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

[2] https://web.archive.org/web/20140208144252/http:/hipdysplasia.org/developmental-dysplasia-of-the-hip/prevention/baby-carriers-seats-and-other-equipment/ (Ex. 1012)

Anticipation and/or obviousness of Claim 20 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
20 pre – The adjustable child carrier of claim 6, **20a** – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

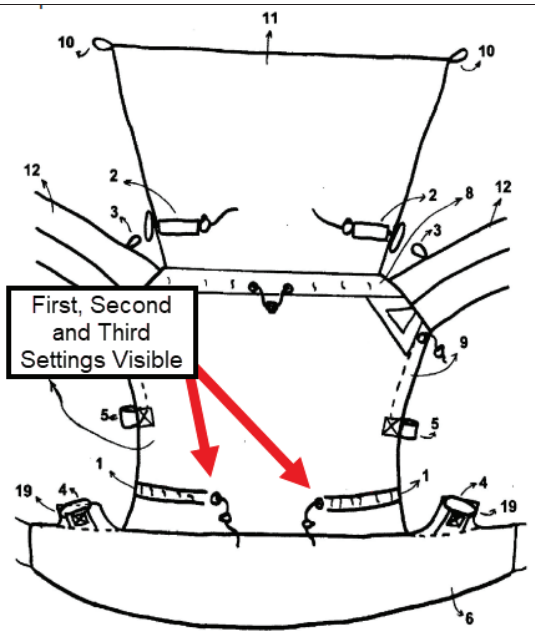
Anticipation and/or obviousness of Claim 21 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
21 pre – The adjustable child carrier of claim 5,	**Yes.** See claim 5 above.
Paragraph [0001]: "The present invention is an ergonomically adjustable carrying aid for carrying babies **and toddlers** up to approx. 15 kg in a stomach and back carrying manner." Experts commonly use the term "toddler" when babies turn 1 year of age. A height range of at least 28 inches is average/standard for toddlers 1 year and older. *See, e.g., What is the average length for a baby?*, MedicalNewsToday, updated March 31, 2023 (last viewed August 5, 2024), available at https://www.medicalnewstoday.com/articles/324728 (Ex. 1010).	
21a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** The `620 alone, or with the knowledge of a POSITA discloses that adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.

Anticipation and/or obviousness of Claim 22 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
22 pre – The adjustable child carrier of claim 10, **22a** – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 23 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
23 pre – The adjustable child carrier of claim 14, **23a** – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

Anticipation and/or obviousness of Claim 24 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
24 pre – The adjustable child carrier of claim 23, **24a** – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 28 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
28 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.



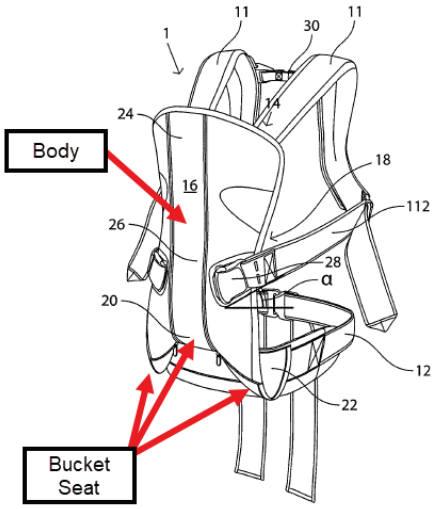
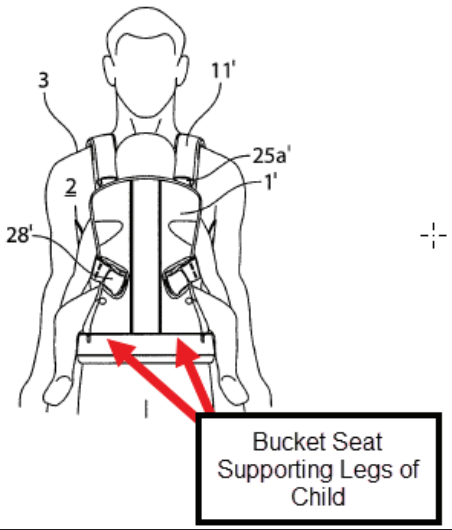
Because the thigh support adjusters, bridge reduction 1, are on an exterior surface of the carrier, the different settings are visible to the user for the selective positioning of the adjusters.

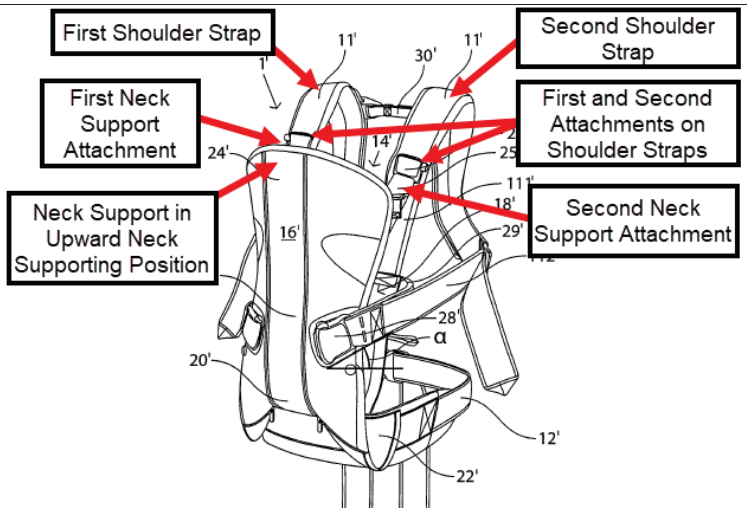
28a – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** The `620 discloses that each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.

Anticipation and/or obviousness of Claim 29 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
29 pre – The adjustable child carrier of claim 6, **29a** – wherein each of the first position, the second position, and the third position is visible to the user for the adjustment of the at least one thigh support adjuster.	**Yes.** See claim 28 above.

Anticipation and/or obviousness of Claim 30 of the US Patent No. 11,786,055 over Austrian Patent AT11620 U2 in View of US Patent Application Publication No. 2008/0190972A1 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
30 pre – The adjustable child carrier of claim 11, **30a** – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** See claim 28 above.

APPENDIX D

Anticipation and/or obviousness of Independent Claim 1 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
 FIG. 1	
1pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising	**Yes.** As shown above, the `692 discloses an adjustable child carrier for supporting a child by a user.
1a – a body configured to support the child,	**Yes.** As shown above, the `692 discloses a body configured to support the child.
1b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** As shown above, the `692 discloses a body that forms a bucket seat configured to support the legs of the child. As can be seen, the seat supports a single infant, and the back curves or conforms to the child.



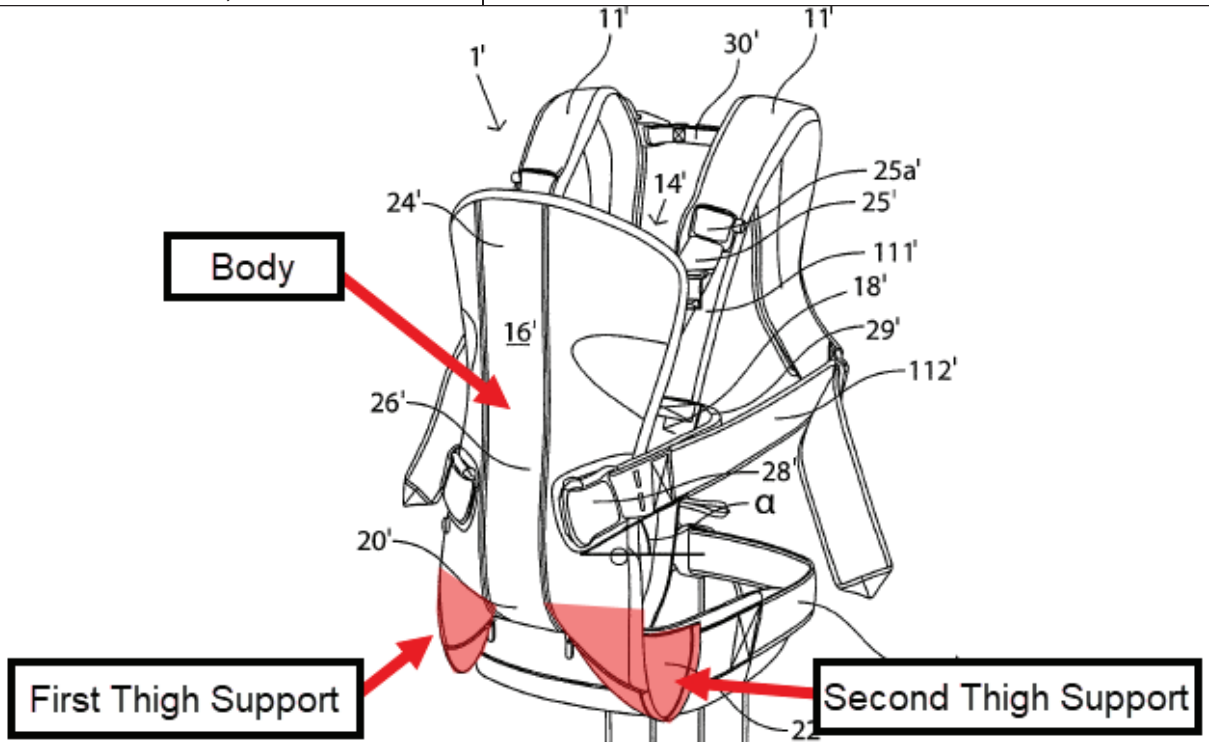
The `692 discloses "an upper portion 24' of the front piece" which is a neck support. [0022]

The `692 discloses neck support attachments 25' and attachments on shoulder straps 25a'. Specifically, the `692 discloses "The detachable connection for the upper portion can be achieved by a strap 25' for instance, which is adjustable in the longitudinal direction and which is attached to the inside of the upper portion 24' and which is detachably connected to respective chest strap 11' by a connecting device 25a'." [0022]

"The baby carrier 1' comprises adjustable chest straps 11' which are mutually adapted to extend around both shoulder areas 3 of the wearer 2." [0022]

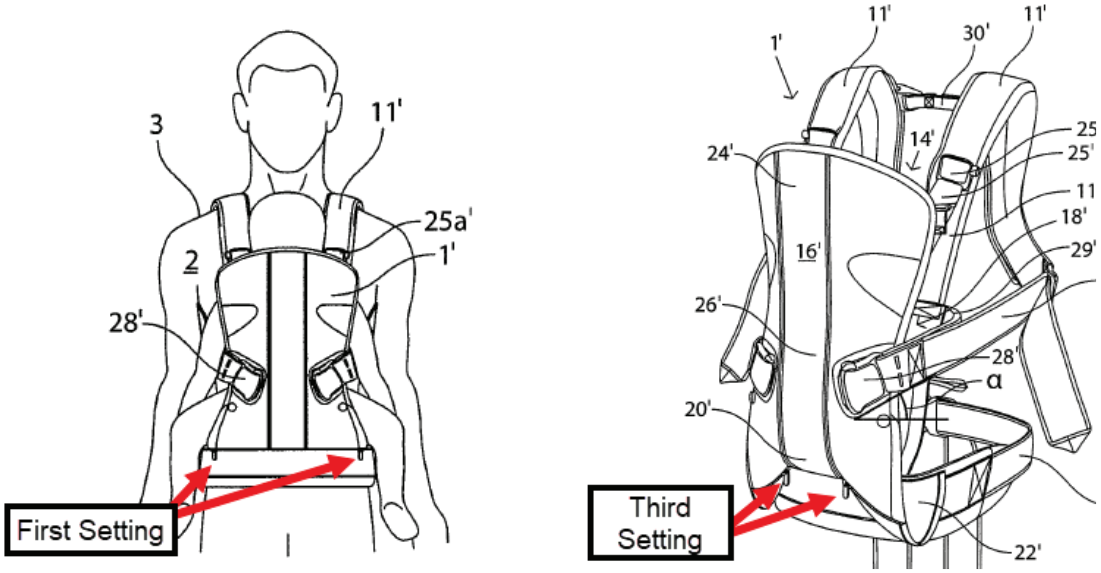
1c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** As shown above, the `692 discloses a neck support comprising a first neck support attachment and a second neck support attachment
1d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** As shown above, the `692 discloses a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user.
1e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** As shown above, the `692 discloses a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user.
1f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** As shown above, the `692 discloses a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment.
1g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment;	**Yes.** As shown above, the `692 discloses a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment.
1h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck	**Yes.** As shown above, the `692 discloses the neck support configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support is coupled to the second attachment.

support attachment is coupled to the second attachment;	

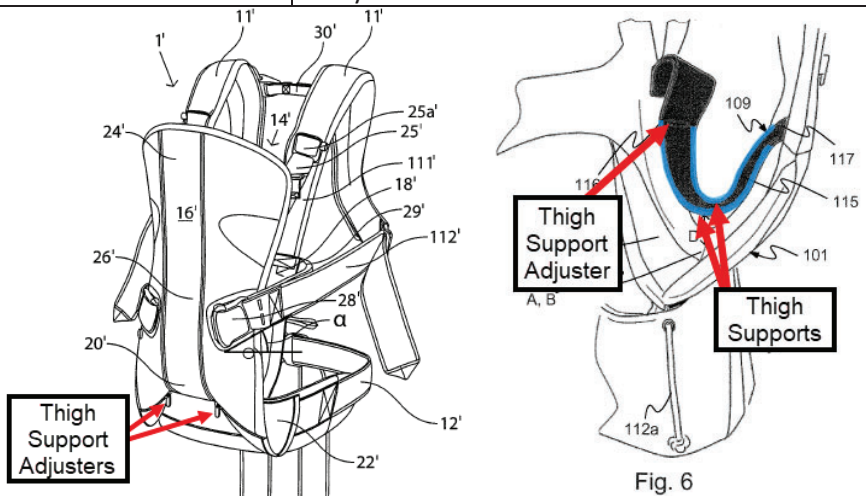


"A lower portion 20' of the front piece is connected to the waist belt and forms at least one seat support 22' for a child sitting in the baby carrier." [0022]

1i – the body forming a first thigh support and a second thigh support;	**Yes.** As shown above, the `692 discloses a first thigh support and a second thigh (lower portion 20' and seat support 22') support formed by the body.



"The seat support 22' is, as known, adjustably arranged in the height direction of the carrier bag 14' so that the depth of the carrier pouch 18' can be adapted to the size of the child." [0029] Note that in the `692 patent "depth" refers to the length of the child carrier.

1j – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** The `692 discloses a first setting, a second setting and a third setting defined by the adjustable child carrier.  A POSITA would understand that the invention of the `692 patent uses a zipper or similar known continuous closure device on each of the thigh supports. A POSITA would recognize a first setting with the zipper fully closed, a third setting with the zipper fully open and a second setting with the zipper positioned between the first and third settings. To the extent that first, second and third settings are not explicitly disclosed, they would have been obvious to a POSITA. Both discrete and continuously variable adjustments were known and common in the art as discussed in the body of the report. While not necessary to satisfy this limitation, a POSITA would also be aware of locking zippers, such as pin lock or auto lock zippers, which hold the zipper slider in place unless force is applied to the pull tab. Such a zipper could be used to hold the zipper in the second position, even when supporting the weight of a child's thighs. Such locking zippers were well known and available in the art at least as early as 2009.[1]
	 Fig. 6
1k – at least one thigh support adjuster coupled to the first thigh support and the second thigh support, Uses First Construction for "thigh support adjuster."	**Yes.** The `692, similar to the thigh support adjuster in the `055 patent, does not disclose a thigh support adjuster coupled to both the first thigh support and the second thigh support. However, the `692 does disclose a thigh support adjuster (zipper or similar) coupled to the first thigh support

[1] CN102048312A; https://ykkamericas.com/difference-between-pin-lock-sliders-and-auto-lock-sliders/ (Ex. 1019)

	and a second thigh support adjuster (zipper or similar) coupled to the second thigh support. The `730, on the other hand, does disclose at least one thigh support adjuster coupled to the first thigh support and the second thigh support, shown on the right above. Specifically, The `730 discloses a child carrier having a bottom portion 109 providing a drooped seat (i.e., "bucket seat") for a baby, the bottom portion 109 having thigh support areas (e.g., lateral side portions or edges of bottom portion 109; **"thigh supports"**) that wrap under and support the baby's thighs when the baby is secured in the carrier. The `730 further teaches that part 116 of the bottom portion 109 "is detachably attached to the stomach portion 118 by a hook-and-eye-connection" (i.e., **"at least one thigh support adjuster"**) to adjust the distance D between the bottom portion 109 and interface A, B, such as to move the thigh supports up and down, thereby "[providing] for adaption of the carrier 100 to suit both smaller children, using the higher position, as well as larger children, using the lower seat position." *See* paragraphs [0041] – [0042]. The `730 further teaches "two end portions B of the interface are however provided with zippers 111a, 111b…the sliders (not shown) of zippers 111a, 111b are in one embodiment both connected to an individual drawstring 112a, 112b, each, as well as to a common drawstring 113. The common drawstring 113 extends from the slider of each zipper 111a, 111b and within the fabric of the front portion 101 until it protrudes via an opening 114 at the center of the waistband 102. In another embodiment (not shown) the zippers are operated by means of the individual sliders or pullers, only" `730 application, para [0034]. These features are illustrated in the below figure. When the zippers are undone to disengage the end portions B, the disengaged end portions B provide support for a child's legs in a "frog position." `730 application, para [0034]. The common drawstring of the `730 application therefore provides a single thigh support adjuster coupled to first and second thigh supports.

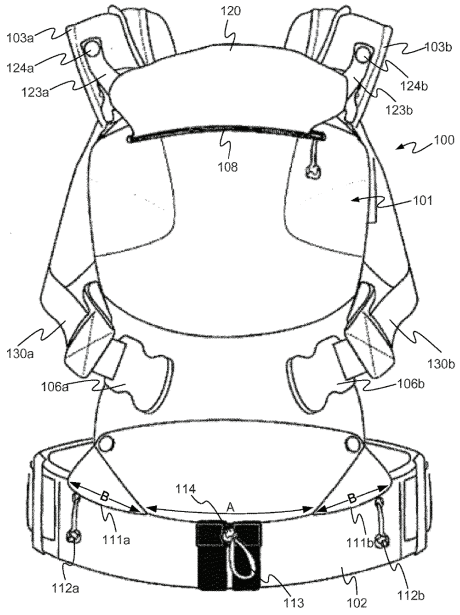


Fig. 10

Thus, it would have been obvious, and a POSITA would have been motivated to include the hook-and-eye-connection to further accommodate changes in child size, and to increase the comfort of the child. Further, it would have been obvious and a POSITA would have been motivated attach a common drawstring to both zippers, uniting the zippers of the `692 with the drawstring of the `730, results in a single thigh support adjuster coupled to both the first and second thigh supports, which would simplify the adjustment process for the user, such as allowing for one-handed adjustment, more easily changing the length of the carrier, or using the adjuster described in the `730 to support a child in a desirable frog position.

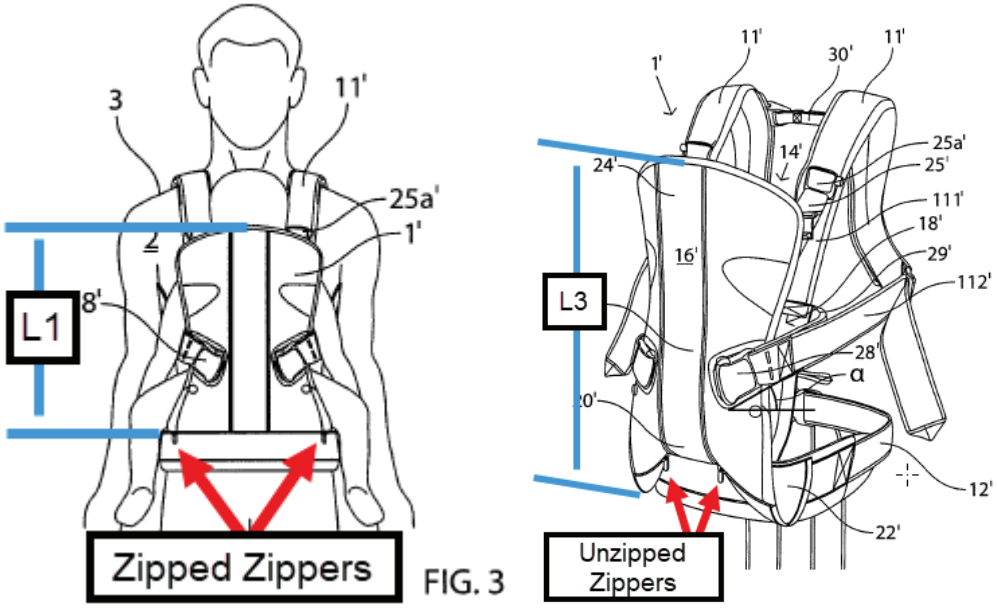
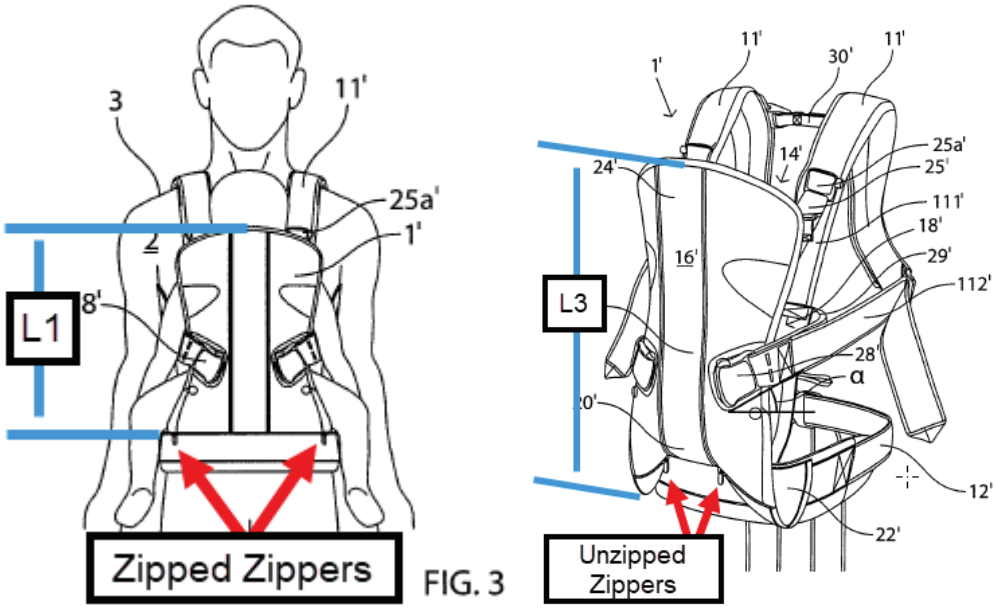


FIG. 3

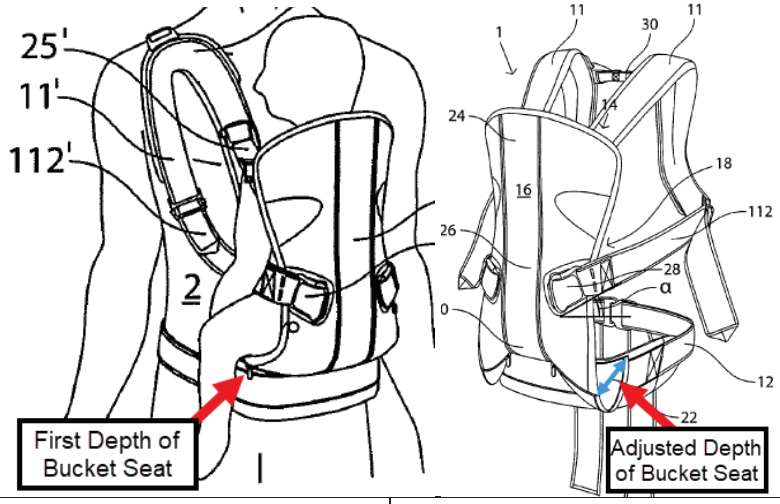
1m – wherein the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages,	**Yes.** As shown above, the `692 discloses at least one thigh support adjuster configured to be selectively positioned to one of the first setting, the second setting or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages. Further, the `692 patent states that: "In a preferred embodiment the seat support 22' is, as known, adjustably arranged in the height direction of the carrier bag 14' so that the depth of the carrier pouch 18' can be adapted to the size of the child."[2] With the zipper fully closed in the first setting, the length is shortest for a smaller child. With the sipper in the second position, or mid-way deployed, the length is larger than when fully closed. When the zipper is fully open, the length is largest for a large child. Thus, various sizes of child are accommodated as the child ages. This limitation would also be obvious based on the combination of the `692 and the `730 discussed above because the adjuster of the `730 can also be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages.
1n – wherein the length is defined from a bottom of the bucket seat to a top of the body.	**Yes.** As shown above, the `692 discloses a first length defined from the bottom of the bucket seat to the top of the body, and a second length defined from the bottom of the bucket seat (including the extended thigh supports) to the top of the body. The bucket seat is what supports the

[2] `692 Patent [0029]

	child, including the child's legs. The thigh supports are part of the bucket seat in any and all positions of the thigh support adjusters.

Anticipation and/or obviousness of Claim 2 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
2pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
 FIG. 3	
2a – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length,	**Yes.** As shown on the left above, the `692 discloses a thigh support adjuster with a first setting wherein the zipper or zipper-like structure is closed (zipped) which adjusts the length of the body to a first, shortest length.
2b – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length,	**Yes.** As discussed above, the `692 discloses and shows first and third settings. A POSITA would understand that the second setting is in between the first and third settings and adjusts the length of the body to a second length greater than the first length. A POSITA would also be aware of locking zippers, such as pin lock or auto lock zippers, which hold the zipper slider in place unless force is applied to the pull tab. Such a zipper could be used to hold the zipper in the second position, even when supporting the weight of a child's thighs. Such locking zippers

	were well known and available in the art at least as early as 2009.[3]
2c – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** As shown on the right above, the `692 discloses at least one thigh support adjuster at the third setting (fully unzipped) which adjusts the length of the body to the third length which is larger than the second length. The bucket seat is what supports the child, including the child's legs. The thigh supports are part of the bucket seat in any and all positions of the thigh support adjusters.

Anticipation and/or obviousness of Claim 3 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
3 pre – The child carrier of claim 1,	**Yes.** See claim 1 above.
	
3a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** As shown above, the `692 discloses that adjustment of the thigh supports adjuster adjusts a depth of the bucket seat, particularly on the sides of the bucket seat, for the child.

Anticipation and/or obviousness of Claim 4 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
4 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.

[3] CN102048312A; https://ykkamericas.com/difference-between-pin-lock-sliders-and-auto-lock-sliders/ (Ex. 1019)

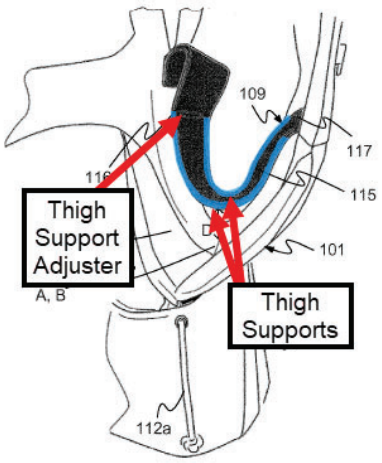


Fig. 6

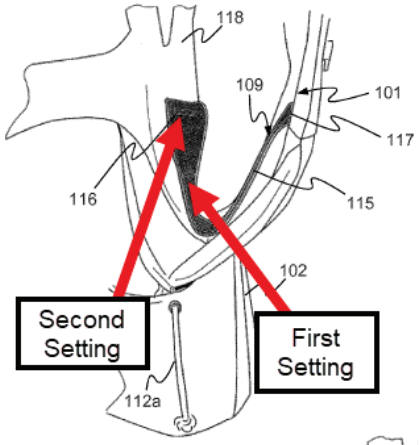


Fig. 5

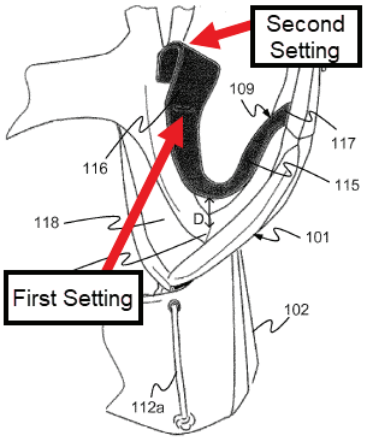
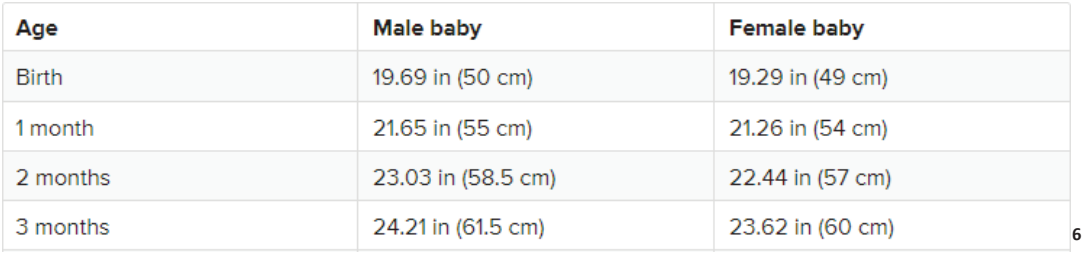


Fig. 6

4a – wherein the first setting is at least partially vertically displaced from the second setting,	**Yes.** As discussed above, the zipper or zipper-like structure of the `692 provides a first setting in which it is closed (zipped) to adjust the length of the body to a first, shortest length, and this first setting is vertically displaced from a second setting in which the zipper is partially open.  Additionally, as shown above, the `730 to Lundh discloses a first setting at least partially vertically displaced from the second setting. The settings are disclosed as hook and eye connections commonly known as Velcro, the same type used in the `055 patent.  The `730 specifically teaches "By the releasable second part 116 the height of the bottom portion 109 can be changed between two positions. With the hooks of the second part 116 attached in a first mode, a first, lower position is provided, as shown in FIG. 5… In a second, higher position, as shown in FIG. 6 the hooks of the second part 116 are attached in another mode, providing a distance D between the bottom portion 109…"
4b – the second setting is at least partially vertically displaced from the third setting, 4c – and the third setting is at least partially vertically displaced from the first setting, 4d – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** The `692 provides first, second, and third settings that are vertically displaced from one another by adjusting the zipper or zipper-like structure because the different lengths are adjustable in a vertical direction.  Additionally, the `730 explicitly discloses first and second modes, positions or settings. It would have been obvious to include a third position or setting. For example, an additional setting could be included in between the two described

	settings, which would allow finer adjustment to fit the child as it grows. A POSITA would be motivated to include a third setting to provide a greater degree of adaptation of the carrier to suit children as they grow.[4]

Anticipation and/or obviousness of Claim 5 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
5 pre – The adjustable child carrier of claim 2,	**Yes.** See claim 2 above.
5a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode,	**Yes.** As shown above, the `692 discloses an infant mode for the carrier: "To be able to use a baby carrier during a longer period of time, i.e. **for carrying an infant until it is about 24 months, alternatively about 36 months."**[5] The fully zipped setting corresponds to an infant mode.
	

Age	Male baby	Female baby
Birth	19.69 in (50 cm)	19.29 in (49 cm)
1 month	21.65 in (55 cm)	21.26 in (54 cm)
2 months	23.03 in (58.5 cm)	22.44 in (57 cm)
3 months	24.21 in (61.5 cm)	23.62 in (60 cm)

[6]

5b – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** As shown above, the `692 discloses that the carrier is able to be used for an infant. It is well known to a POSITA that a child in the height range of 20-24 inches would be approximately 0-3 months of age, an infant.

Anticipation and/or obviousness of Claim 6 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**

[4] `730 Application [0042]
[5] Paragraph [0002]
[6] "What is the length for a baby?" Medical News Today - https://www.medicalnewstoday.com/articles/324728 (Ex. 1010)

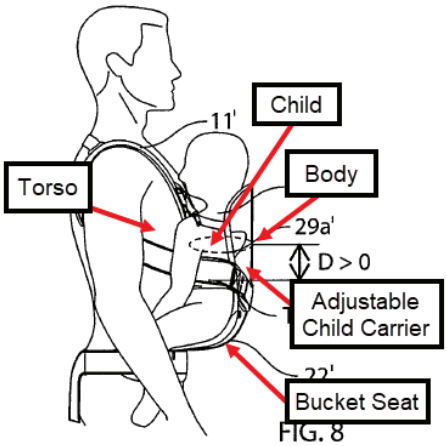
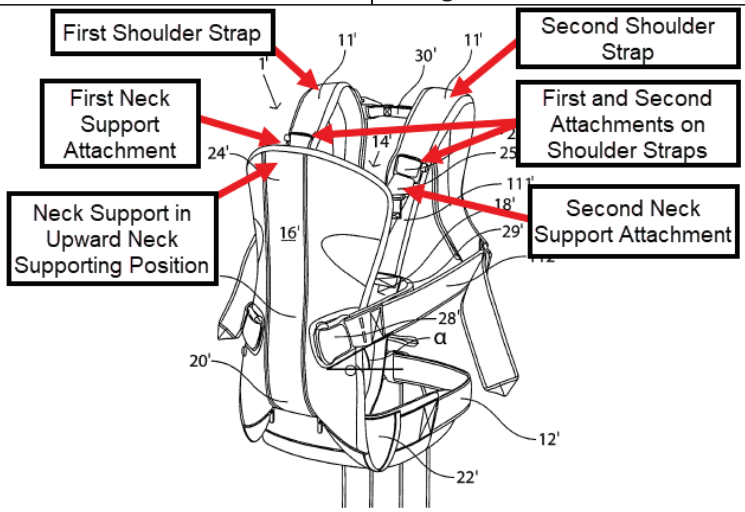


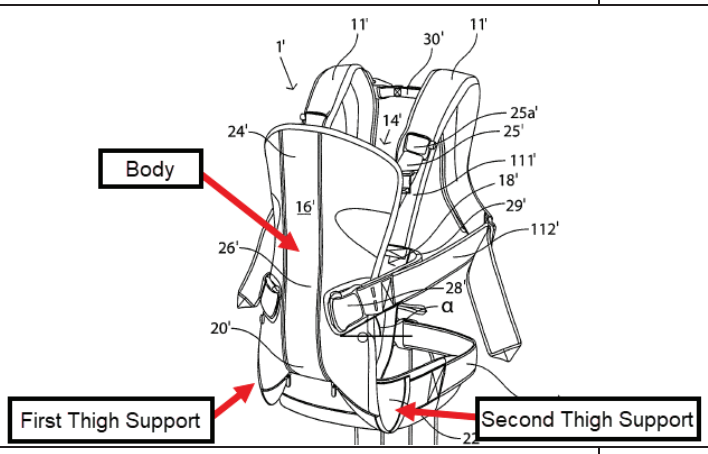
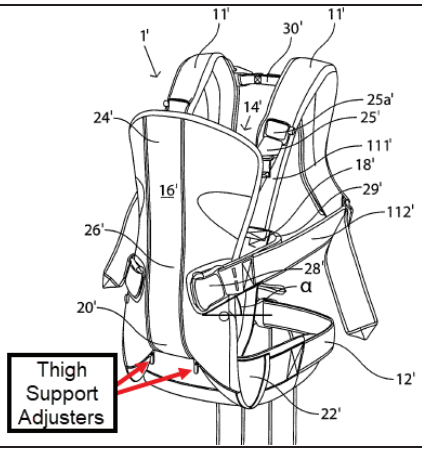
FIG. 8

6 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** As shown above, the `692 discloses an adjustable child carrier for supporting a child by a user.
6a – a body configured to support the child between the body and a torso of the user,	**Yes.** As shown above, the `692 discloses a child carrier with a body configured to support the child between the body and a torso of the user.
6b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** As shown above, the `692 discloses a child carrier wherein the body forms a bucket seat configured to support legs of the child. A POSITA would understand that a bucket seat is a seat for a single user with a rounded or contoured back.



The `692 discloses "an upper portion 24' of the front piece" which is a neck support. [0022]

The `692 discloses neck support attachments 25' and attachments on shoulder straps 25a'. Specifically, the `692 discloses "The detachable connection for the upper portion can be achieved by a strap 25' for instance, which is adjustable in the longitudinal direction and which is attached to the inside of the upper portion 24' and which is detachably connected to respective chest strap 11' by a connecting device 25a'." [0022]

"The baby carrier 1' comprises adjustable chest straps 11' which are mutually adapted to extend around both shoulder areas 3 of the wearer 2." [0022]	
6c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** As shown above, the `692 discloses a neck support comprising a first neck support attachment and a second neck support attachment.
6d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** As shown above, the `692 discloses a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user.
6e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** As shown above, the `692 discloses a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user.
6f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** As shown above, the `692 discloses a first attachment disposed on the first should strap and configured to receive the first neck support attachment.
6g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** As shown above, the `692 discloses a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment.
6h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** As shown above, the `692 discloses the neck support configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment.
 	
6i – the body forming a first thigh support and a second thigh support;	**Yes.** As shown above, the `692 discloses the body forming a first thigh support and a second thigh support.

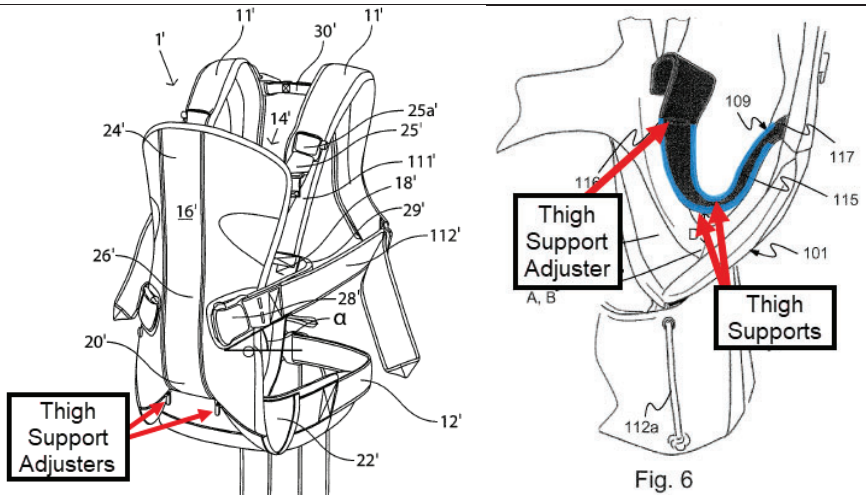
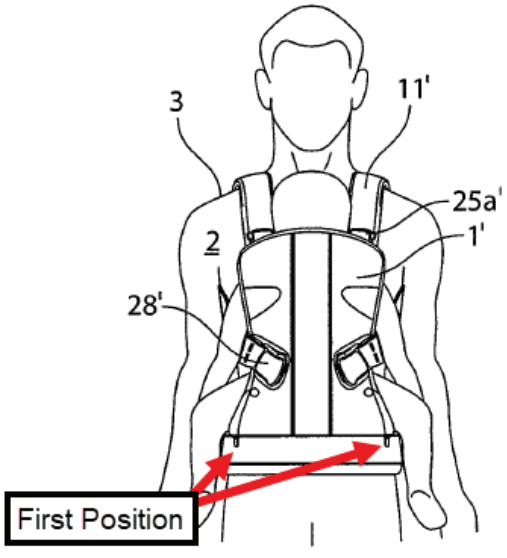
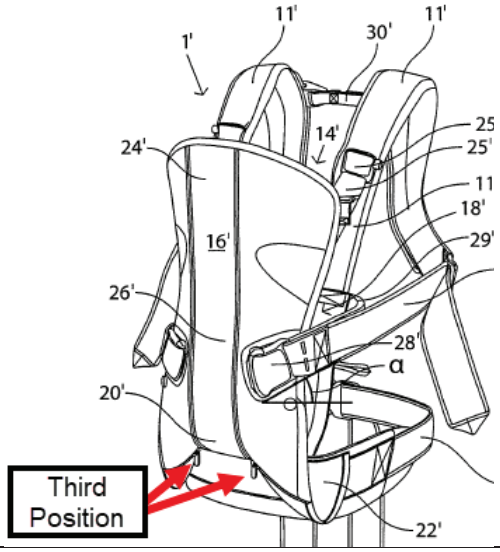


Fig. 6

6j – at least one thigh support adjuster coupled to the first thigh support and the second thigh support; and Uses First Construction for "thigh support adjuster."	**Yes.** The `692, similar to the thigh support adjuster in the `055 patent, does not disclose a thigh support adjuster coupled to both the first thigh support and the second thigh support. However, the `692 discloses at least one thigh support adjuster coupled to the first thigh support and the second thigh support.  The `730 on the other hand, does discloses at least one thigh support adjuster coupled to the first thigh support and the second thigh support. Specifically, The `730 discloses a child carrier having a bottom portion 109 providing a drooped seat (i.e., "bucket seat") for a baby, the bottom portion 109 having thigh support areas (e.g., lateral side portions or edges of bottom portion 109; **"thigh supports"**) that wrap under and support the baby's thighs when the baby is secured in the carrier. The `730 further teaches that part 116 of the bottom portion 109 "is detachably attached to the stomach portion 118 by a hook-and-eye-connection" (i.e., **"at least one thigh support adjuster"**) to adjust the distance D between the bottom portion 109 and interface A, B, such as to move the thigh supports up and down, thereby "[providing] for adaption of the carrier 100 to suit both smaller children, using the higher position, as well as larger children, using the lower seat position." *See* paragraphs [0041] – [0042].

	The `730 further teaches "two end portions B of the interface are however provided with zippers 111a, 111b…the sliders (not shown) of zippers 111a, 111b are in one embodiment both connected to an individual drawstring 112a, 112b, each, as well as to a common drawstring 113. The common drawstring 113 extends from the slider of each zipper 111a, 111b and within the fabric of the front portion 101 until it protrudes via an opening 114 at the center of the waistband 102. In another embodiment (not shown) the zippers are operated by means of the individual sliders or pullers, only" [0034] Thus, it would have been obvious, and a POSITA would have been motivated to include the hook-and-eye-connection to further accommodate changes in child size, and to increase the comfort of the child. Further, it would have been obvious and a POSITA would have been motivated attach a common drawstring to both zippers, uniting the zippers of the `692 with the drawstring of the `730, results in a single thigh support adjuster coupled to both the first and second thigh supports, hich would simplify the adjustment process for the user, such as allowing for one-handed adjustment, more easily changing the length of the carrier, or using the adjuster described in the `730 to support a child in a desirable frog position.
	

6k – a first position, a second position, and a third position defined by the adjustable child carrier,	**Yes.** As shown above, the `692 discloses a first position, a second position, and a third position defined by the adjustable child carrier.
6l – wherein the first position corresponds to a first setting, the second position corresponds to a second setting, and the third position corresponds to a third setting,	**Yes.** As shown above, the `692 discloses a first position that corresponds to a first setting, a second position that corresponds to a second setting and a third position that corresponds to a third setting. While the figures from the patent only show the first and third positions, a POSITA would recognize that a second position exists between the first and third positions. A POSITA would understand that the invention of the `692 patent uses a zipper or similar known device on each of the thigh supports. A POSITA would recognize a first setting with the zipper fully closed, a third setting with the zipper fully open and a second setting with the zipper partially closed (in between the first and third settings). While not necessary to satisfy this limitation, a POSITA would also be aware of locking zippers, such as pin lock or auto lock zippers, which hold the zipper slider in place unless force is applied to the pull tab. Such a zipper could be used to hold the zipper in the second position, even when supporting the weight of a child's thighs. Such locking zippers were well known and available in the art at least as early as 2009.[7] To the extent that first, second and third settings are not explicitly disclosed, they would have been obvious to a POSITA. Both discrete and continuously variable adjustments were known and common in the art as discussed in the body of the report.

[7] CN102048312A; https://ykkamericas.com/difference-between-pin-lock-sliders-and-auto-lock-sliders/ (Ex. 1019)

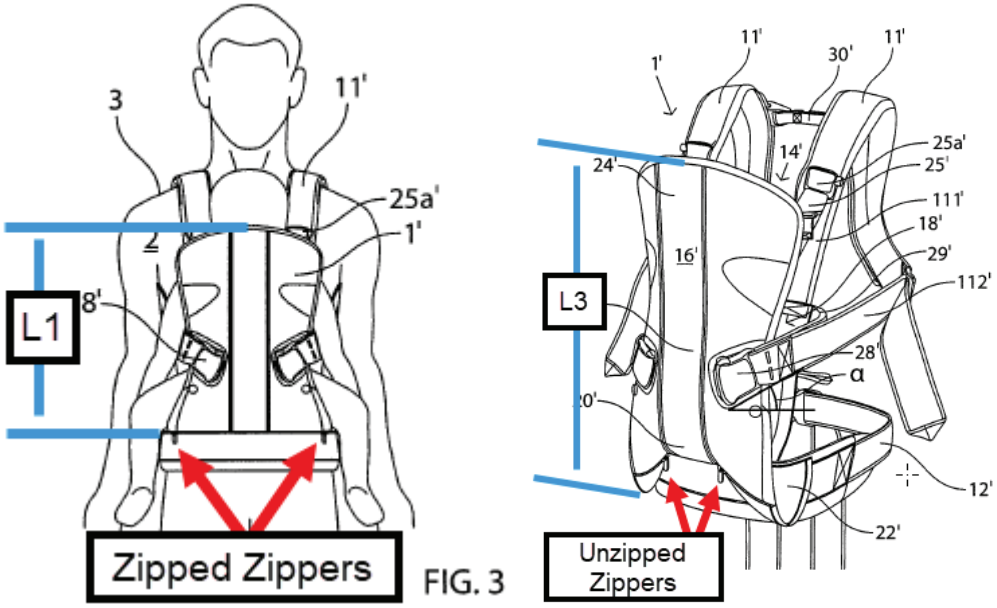
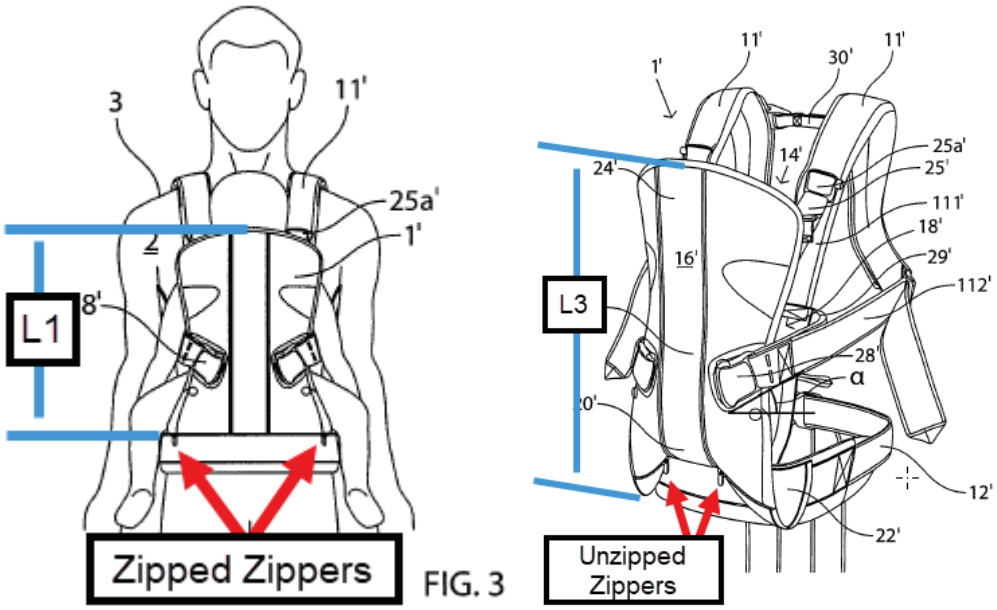


FIG. 3

6m – wherein adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure the adjustable child carrier to one of the first setting, the second setting, or the third setting, Uses the First Construction for thigh support adjuster	**Yes.** As shown above, the `692 discloses that the adjustment of the at least one thigh support adjuster among the first position (zippers fully zipped), the second position (in between zipped and unzipped) and the third position (fully unzipped) adjusts the length of the body to configure the adjustable child carrier to one of the first setting, the second setting or the third setting. Further, the `692 patent states that: "In a preferred embodiment the seat support 22' is, as known, adjustably arranged in the height direction of the carrier bag 14' so that the depth of the carrier pouch 18' can be adapted to the size of the child."[8] With the zipper fully closed in the first setting, the length is shortest for a smaller child. With the sipper in the second position, or mid-way deployed, the length is larger than when fully closed. When the zipper is fully open, the length is largest for a large child. Thus, various sizes of child are accommodated as the child ages. This limitation would also be obvious based on the combination of the `692 and the `730 discussed above because the adjuster of the `730

[8] `692 Patent [0029]

	can also be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages.
6n – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** As shown above, the `692 discloses a first length defined from the bottom of the bucket seat to the top of the body, and a second length defined from the bottom of the bucket seat (including the extended thigh supports) to the top of the body. The bucket seat is what supports the child, including the child's legs. The thigh supports are part of the bucket seat in any and all positions of the thigh support adjusters.

Anticipation and/or obviousness of Claim 7 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
7 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
 FIG. 3	
7a – wherein adjustment of the at least one thigh support adjuster from the first position to the second position adjusts the length of the body from a first length to a second length,	**Yes.** See claim 2 above.
7b – the second length being greater than the first length,	**Yes.** See claim 2 above.

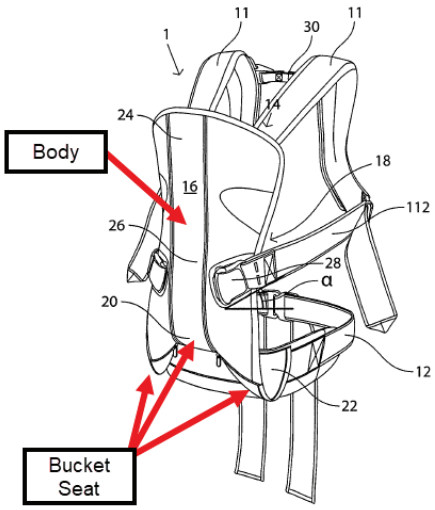
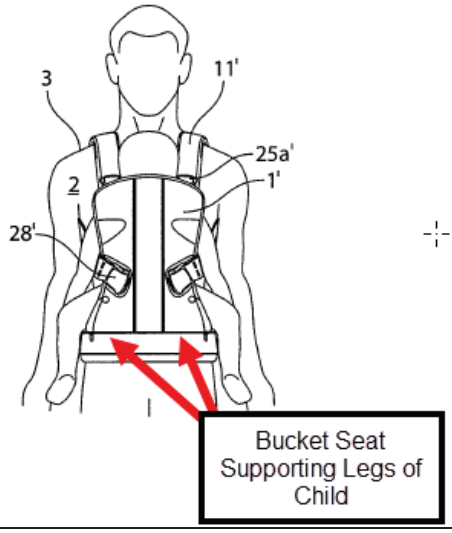
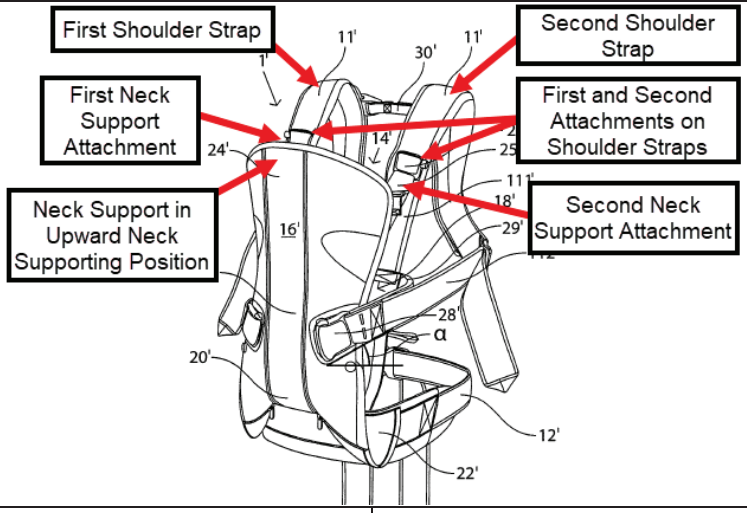
7c – wherein adjustment of the at least one thigh support adjuster from the second position to the third position adjusts the length of the body from the second length to a third length,	**Yes.** See claim 2 above.
7d – the third length being greater than the first length and the second length.	**Yes.** See claim 2 above.

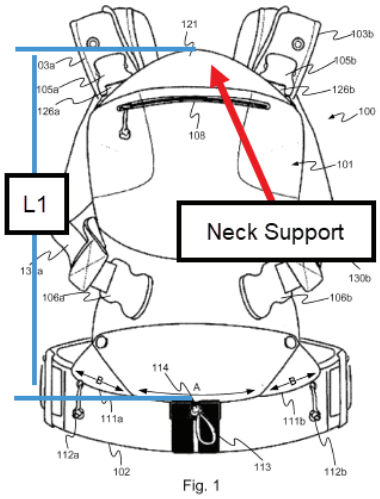
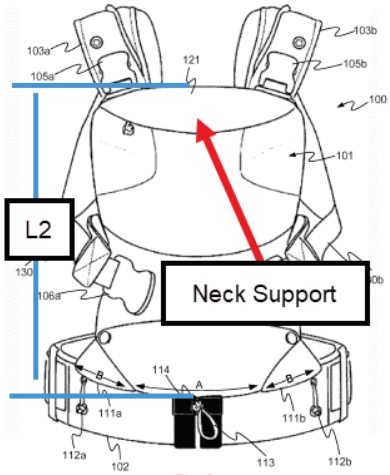
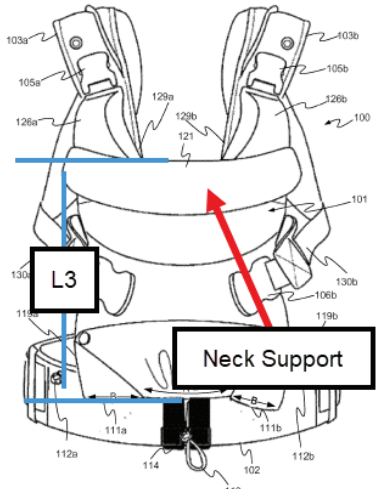
Anticipation and/or obviousness of Claim 8 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
8 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
8a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See Claim 3 above.

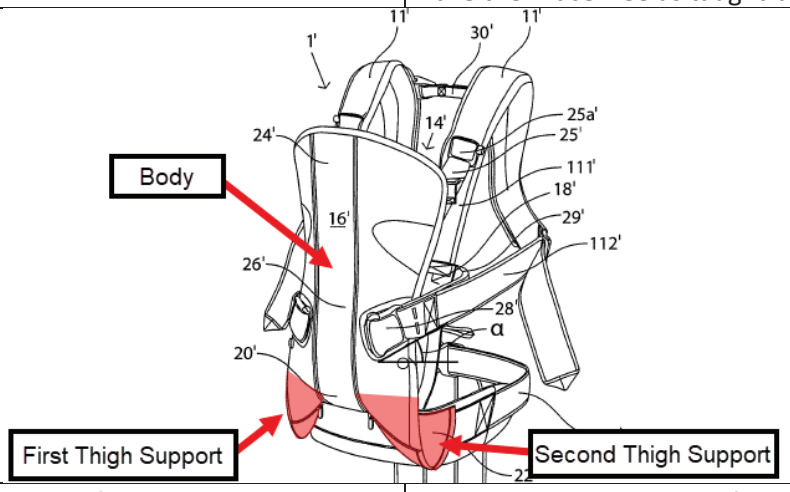
Anticipation and/or obviousness of Claim 9 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
9 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
9a – wherein the first position is at least partially vertically displaced from the second position,	**Yes.** See claim 4 above.
9b – the second position is at least partially vertically displaced from the third position,	**Yes.** See claim 4 above.
9c – and the third position is at least partially vertically displaced from the first position,	**Yes.** See claim 4 above.
9d – wherein the adjustable child carrier defines the second position between the first position and the third position.	**Yes.** See claim 4 above.

Anticipation and/or obviousness of Claim 10 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
10 pre – The adjustable child carrier of claim 7,	**Yes.** See claim 7 above.
10a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode,	**Yes.** See claim 5 above.
10b – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

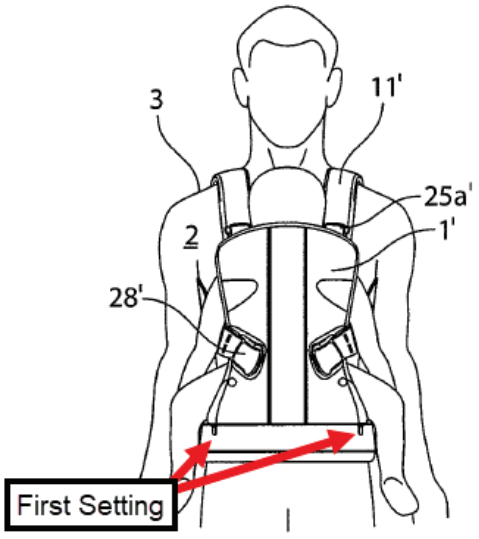
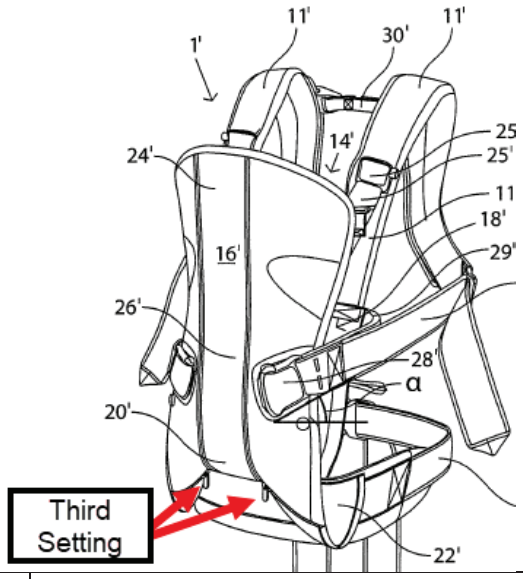
Anticipation and/or obviousness of Independent Claim 11 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art

Claim Element	Does the Prior Art have the Element?
 FIG. 1	
11 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** As shown above, the `692 discloses an adjustable child carrier for supporting a child by a user.
11a – a body configured to support the child,	**Yes.** As shown above, the `692 discloses a body configured to support the child.
11b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** As shown above, the `692 discloses a body that forms a bucket seat configured to support the legs of the child.
	
11c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** As shown above, the `692 discloses a neck support comprising a first neck support attachment and a second neck support attachment
11d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** As shown above, the `692 discloses a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user.

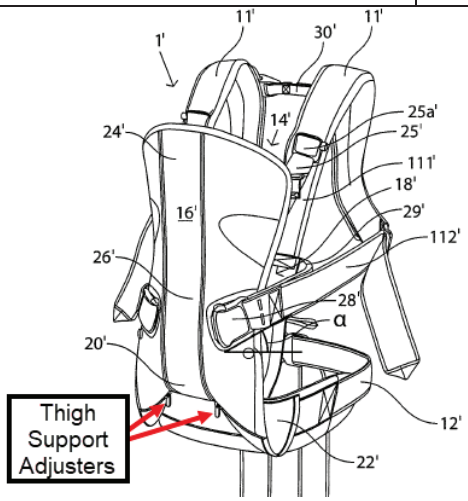
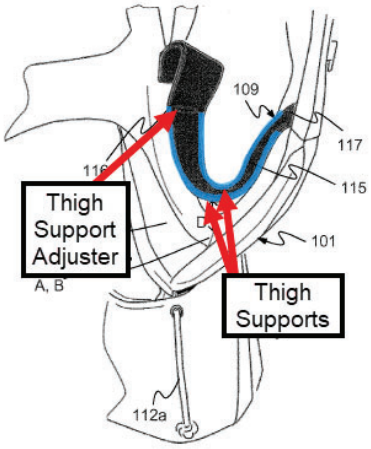
11e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** As shown above, the `692 discloses a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user.
11f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** As shown above, the `692 discloses a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment.
11g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** As shown above, the `692 discloses a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment.
11h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** As shown above, the `692 discloses the neck support configured in an upward neck supporting position when the first neck support attachment is coupled to the second attachment.
 Fig. 1  Fig. 3  Fig. 7	
11i – wherein folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position;	**Yes.** Folding neck supports and particularly a neck support in an outside folded down position are common in the prior art, and implementing a outside folded down position for the neck support would have been obvious to a POSITA as it is nothing more than a design choice, implementing known techniques according to known methods with a reasonable expectation of success. This position is illustrated in Figure 10 of the `692.  To the extent it would not have been obvious in view of ordinary skill in the art to implement a neck support in an outside folded down position to reduce the length of the body, it would have been obvious in view of the `730 to Lundh.

	As shown above, the `730 discloses a neck support that can be folded to an outside folded down position, which reduces the length of the body in relation to the upward neck supporting position (left above). The `730 specifically teaches "An upper part 121 of the front portion 101 is foldable into at least two positions. In a first position, as shown e.g. in FIG. 1 the upper part 121 is raised and provides support for the child's head. In FIG. 3 the upper part 121 is partly lowered, such that the child's head becomes more free… a third position of the upper part 121 is shown in FIG. 7, in which it is completely folded down, allowing a child placed in a forward facing position to have the face free." [0039] A POSITA would be motivated to combine the neck support of the `692 with the outward foldable neck support of the `730, at least because it would increase the comfort of the child, allowing the child's head to become more free, and preventing the child from feeling enclosed by the carrier. It also allows the child to have their face free as taught by the `730.[9]
	
11j – the body forming a first thigh support and a second thigh support;	**Yes.** As shown above, the `692 discloses a first thigh support and a second thigh support formed by the body.
11k – wherein the body, the first thigh support, and the second thigh support in combination form a seat for the child;	**Yes.** As shown above, the `692 discloses that the body, the first thigh support and the second thigh support in combination form a seat for the child.

[9] `730 Patent Application [0039]

 	
11l – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** The `692 discloses a first setting, a second setting and a third setting defined by the adjustable child carrier. While the second setting is not shown in the figures, a POSITA would recognize a second setting between the first and third settings, with the zipper partially unzipped. A POSITA would understand that the invention of the `692 patent uses a zipper or similar known device on each of the thigh supports. A POSITA would recognize a first setting with the zipper fully closed, a third setting with the zipper fully open and a second setting with the zipper partially closed (in between the first and third settings). While not necessary to satisfy this limitation, a POSITA would also be aware of locking zippers, such as pin lock or auto lock zippers, which hold the zipper slider in place unless force is applied to the pull tab. Such a zipper could be used to hold the zipper in the second position, even when supporting the weight of a child's thighs. Such locking zippers were well known and available in the art at least as early as 2009.[10] To the extent that first, second and third settings are not explicitly disclosed, they would have been obvious to a POSITA. Both discrete and

[10] CN102048312A; https://ykkamericas.com/difference-between-pin-lock-sliders-and-auto-lock-sliders/ (Ex. 1019)

	continuously variable adjustments were known and common in the art as discussed in the body of the report.
  Fig. 6	
11m – at least one thigh support adjuster coupled to the first thigh support and the second thigh support, Uses the First Construction for the term thigh support adjuster.	**Yes.** The `692, similar to the thigh support adjuster in the `055 patent, does not disclose a thigh support adjuster coupled to both the first thigh support and the second thigh support. However, the `692 does disclose a thigh support adjuster (zipper or similar) coupled to the first thigh support and a second thigh support adjuster (zipper or similar) coupled to the second thigh support.  The `730, on the other hand, does discloses at least one thigh support adjuster coupled to the first thigh support and the second thigh support. Specifically, the `730 discloses a child carrier having a bottom portion 109 providing a drooped seat (i.e., "bucket seat") for a baby, the bottom portion 109 having thigh support areas (e.g., lateral side portions or edges of bottom portion 109; **"thigh supports"**) that wrap under and support the baby's thighs when the baby is secured in the carrier.

	The `730 further teaches part 116 of the bottom portion 109 "is detachably attached to the stomach portion 118 by a hook-and-eye-connection" (i.e., **"at least one thigh support adjuster"**) to adjust the distance D between the bottom portion 109 and interface A, B, such as to move the thigh supports up and down, thereby "[providing] for adaption of the carrier 100 to suit both smaller children, using the higher position, as well as larger children, using the lower seat position." *See* paragraphs [0041] – [0042]. The `730 further teaches "two end portions B of the interface are however provided with zippers 111a, 111b…the sliders (not shown) of zippers 111a, 111b are in one embodiment both connected to an individual drawstring 112a, 112b, each, as well as to a common drawstring 113. The common drawstring 113 extends from the slider of each zipper 111a, 111b and within the fabric of the front portion 101 until it protrudes via an opening 114 at the center of the waistband 102. In another embodiment (not shown) the zippers are operated by means of the individual sliders or pullers, only" [0034] Thus, it would have been obvious, and a POSITA would have been motivated to include the hook-and-eye-connection to further accommodate changes in child size, and to increase the comfort of the child. Further, it would have been obvious and a POSITA would have been motivated attach a common drawstring to both zippers, uniting the zippers of the `692 with the drawstring of the `730, results in a single thigh support adjuster coupled to both the first and second thigh supports, hich would simplify the adjustment process for the user, such as allowing for one-handed adjustment, more easily changing the length of the carrier, or using the adjuster described in the `730 to support a child in a desirable frog position.

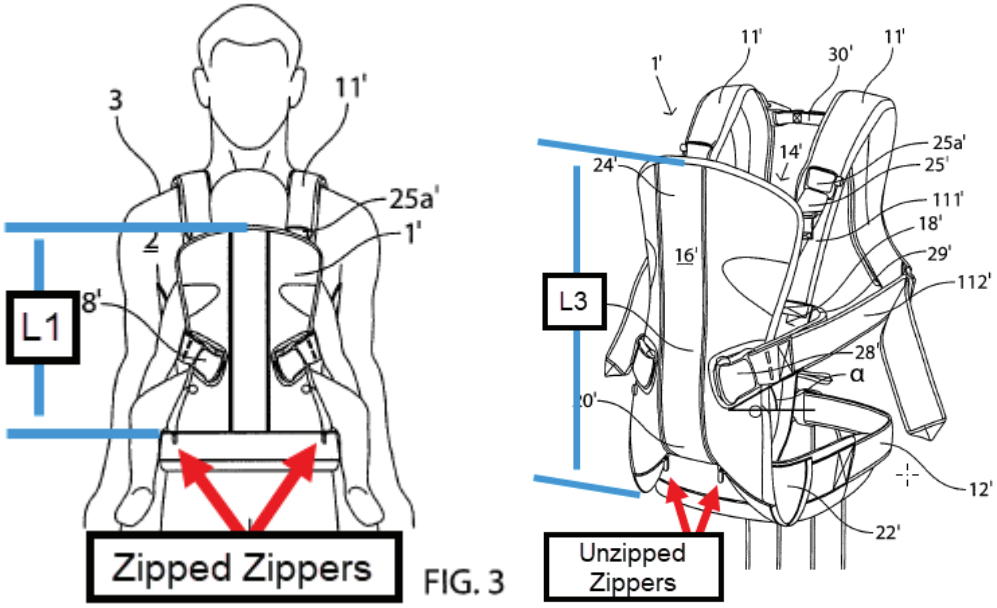


FIG. 3

11n – wherein selective positioning of the at least one thigh support adjuster at the first setting, the second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages,	**Yes.** As shown above, the `692 discloses at least one thigh support adjuster configured to be selectively positioned at the first setting, the second setting or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages. Further, the `692 patent states that: "In a preferred embodiment the seat support 22' is, as known, adjustably arranged in the height direction of the carrier bag 14' so that the depth of the carrier pouch 18' can be adapted to the size of the child."[11]
11o – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** As shown above, the `692 discloses a first length defined from the bottom of the bucket seat to the top of the body, and a second length defined from the bottom of the bucket seat (including the extended thigh supports) to the top of the body.

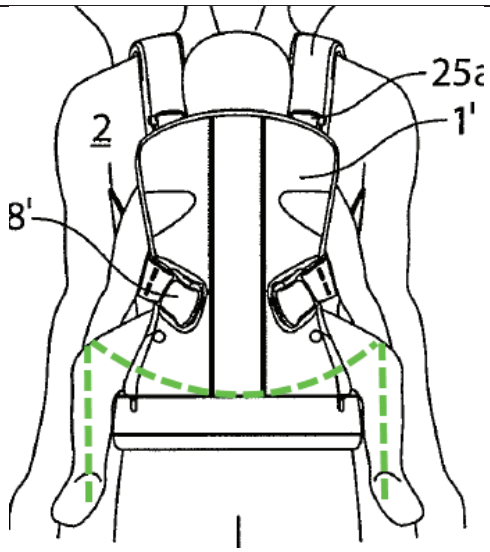
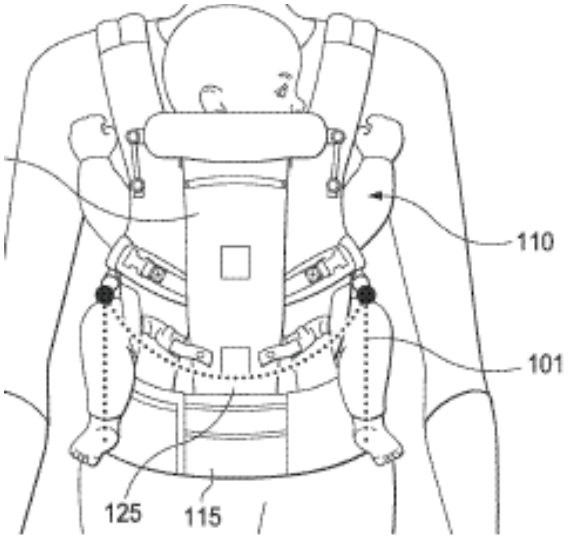
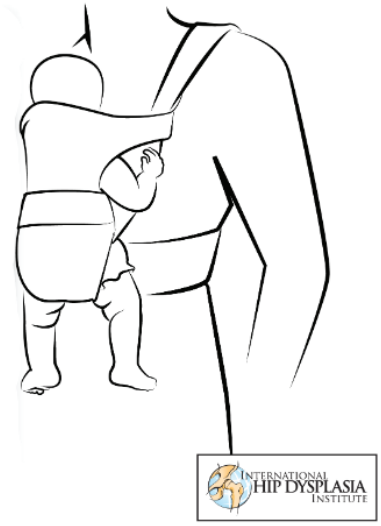
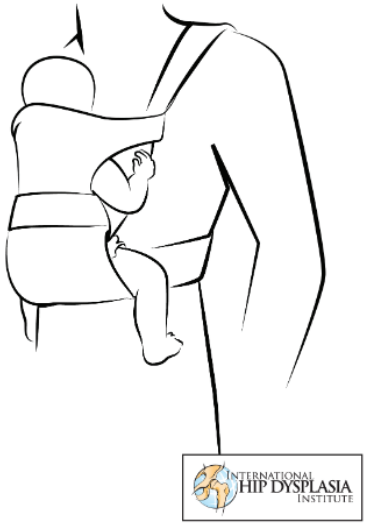
Anticipation and/or obviousness of Claim 12 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
12 pre – "The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
12a – "wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 3 above.

[11] `692 Patent [0029]

Anticipation and/or obviousness of Claim 13 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
13 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
13a – wherein the first setting is at least partially vertically displaced from the second setting,	**Yes.** See claim 4 above.
13b – the second setting is at least partially vertically displaced from the third setting,	**Yes.** See claim 4 above.
13c – and the third setting is at least partially vertically displaced from the first setting,	**Yes.** See claim 4 above.
13d – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** See claim 4 above.

Anticipation and/or obviousness of Claim 14 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
14 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
14a – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length,	**Yes.** See claim 2 above.
14b – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length,	**Yes.** See claim 2 above.
14c – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** See claim 2 above.

Anticipation and/or obviousness of Claim 15 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
15 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.

  **Not Recommended:**  **Better:** 	
15a – wherein the seat is configured to support the child in a spread squat position.	**Yes.** As shown above (top left), the `692 discloses the seat configured to support the child in a spread squat position. As can be seen in the annotated image above, the `692 supports the child in the same M-shaped spread squat position indicated by line 101 of the `055 patent shown on the top right above. Further, it was well known to a POSITA to support a child in a spread squat position to promote natural hip development. As early as 2014, the Internation Hip Dysplasia Institute taught that "The healthiest position for the hips is for the hips to fall or spread (naturally) apart to the side, with the thighs supported and the hips and knees

	bent. This position has been called the jockey position, straddle position, frog position, spread-squat position or human position."[12] To the extent the spread squat position is not explicitly shown, it would have been obvious in view of the International Hip Dysplasia Institutes advocacy for supporting children in this position when in child carriers.

Anticipation and/or obviousness of Claim 19 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
19 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
19a – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

Anticipation and/or obviousness of Claim 20 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
20 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
20a – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

Anticipation and/or obviousness of Claim 21 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
21 pre – The adjustable child carrier of claim 5,	**Yes.** See claim 5 above.

[12] https://web.archive.org/web/20140208144252/http:/hipdysplasia.org/developmental-dysplasia-of-the-hip/prevention/baby-carriers-seats-and-other-equipment/ (Ex. 1012)

Age	Male baby	Female baby
Birth	19.69 in (50 cm)	19.29 in (49 cm)
1 month	21.65 in (55 cm)	21.26 in (54 cm)
2 months	23.03 in (58.5 cm)	22.44 in (57 cm)
3 months	24.21 in (61.5 cm)	23.62 in (60 cm)
4 months	25.20 in (64 cm)	24.41 in (62 cm)
5 months	25.98 in (66 cm)	25.20 in (64 cm)
6 months	26.77 in (68 cm)	25.48 in (66 cm)
7 months	27.17 in (69 cm)	26.38 in (67 cm)
8 months	27.95 in (71 cm)	27.17 in (69 cm)
9 months	28.35 in (72 cm)	27.56 in (70 cm)
10 months	28.74 in (73 cm)	28.15 in (71.5 cm)
11 months	29.33 in (74.5 cm)	28.74 in (73 cm)
12 months	29.92 in (76 cm)	29.13 in (74 cm)

[13]

21a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** The `692 discloses a purpose of the invention is to be able to rotate the carrier from the chest side to the back side.[14] The `692 also discloses that being able to rotate the carrier allows it to be able to be used for a longer period of time, from an infant to 24 or 36 months old. Specifically, the `692 states: "To be able to use a baby carrier during a longer period of time, i.e. for carrying an infant until it is about 24 months, alternatively about 36 months, it would be desirable if the baby carrier can be carried both on the chest side and the back side of a wearer, since, when a child gets heavier, it is advantageously carried on the back side of the wearer."[15] The fully open/unzipped position would correspond to a toddler mode. A POSITA would have understood a toddler to be a child that is just learning to walk, typically approximately starting at or around the 1 year of age mark. As reported in the Medical News

[13] *What is the average length for a baby?*, MedicalNewsToday, updated March 31, 2023 (last viewed August 5, 2024) https://www.medicalnewstoday.com/articles/324728#average-lengths (Ex. 1010)
[14] `692 Application [0005]
[15] `692 Application [0002]

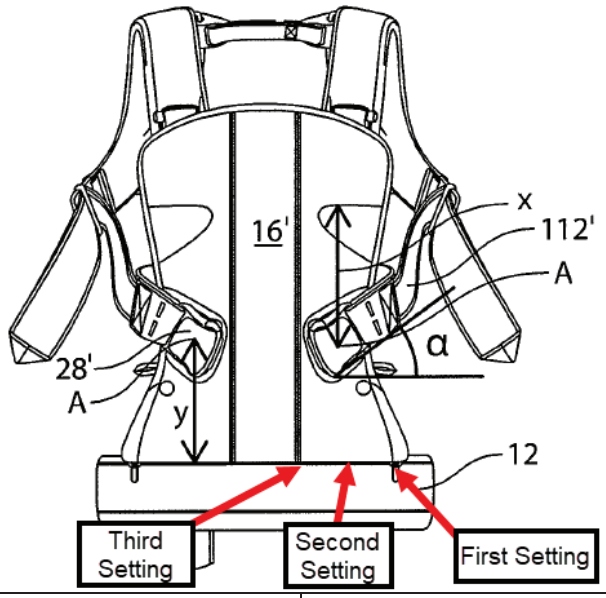
	Today, shown above, children reach a height of 28 inches around 9-10 months.

Anticipation and/or obviousness of Claim 22 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
22 pre – The adjustable child carrier of claim 10,	**Yes.** See claim 10 above.
22a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 23 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
23 pre – The adjustable child carrier of claim 14,	**Yes.** See claim 14 above.
23a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

Anticipation and/or obviousness of Claim 24 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
24 pre – The adjustable child carrier of claim 23,	**Yes.** See claim 23 above.
24a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

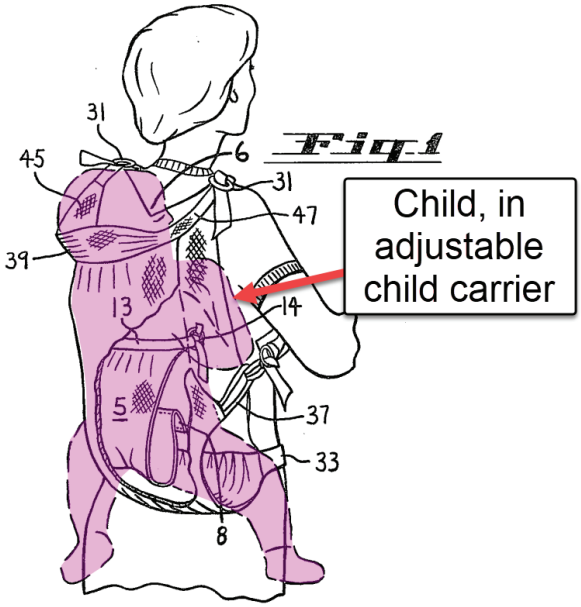
Anticipation and/or obviousness of Claim 28 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
28 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.

	
28a – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** As shown above, the first, second and third settings of the invention in the `692 are visible to the user for the selective positioning of the thigh support adjusters. As can be seen, the thigh support adjusters are on the exterior surface of the carrier and the different settings are visible to the user for the selective positioning of the adjusters.

Anticipation and/or obviousness of Claim 29 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
29 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
29a – wherein each of the first position, the second position, and the third position is visible to the user for the adjustment of the at least one thigh support adjuster.	**Yes.** See claim 28 above.

Anticipation and/or obviousness of Claim 30 of US Patent No. 11,786,055 over US Pat. App. Pub. No. 2014/0014692 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
30 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
30a – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** See claim 28 above.

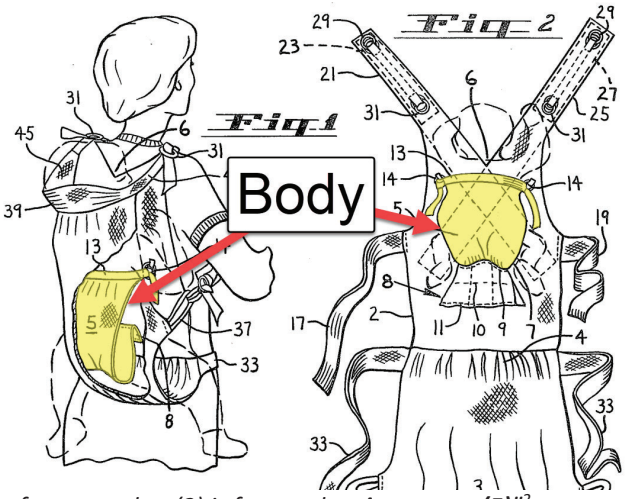
APPENDIX E

<table>
<tr><th colspan="2">Anticipation and/or obviousness of Claim 1 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art</th></tr>
<tr><th>Claim Element</th><th>Does the Prior Art have the Element?</th></tr>
<tr><td colspan="2"> 

“<u>A carrying device for transporting an infant child is disclosed.</u> The carrier may be worn on the user's back or may alternately be fitted to the user so that the infant is carried in front. <u>The carrier includes a pair of adjust able shoulder straps to be worn by the user and also has an adjustable waist band.</u>”[1]

As shown above, the `808 discloses an adjustable child carrier. As described in the abstract and as shown in Figure 1, the child carrier is supporting a child and is adjustable.</td></tr>
<tr><td>1pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising</td><td>Yes. The `808 discloses an adjustable child carrier for supporting a child by a user.</td></tr>
<tr><td colspan="2">As shown below, the `808 discloses a body (seat, 5) which is configured to support the child, notably from their buttocks up their shoulder blades.</td></tr>
</table>

[1] US 4,009,808, Abstract, emphasis added

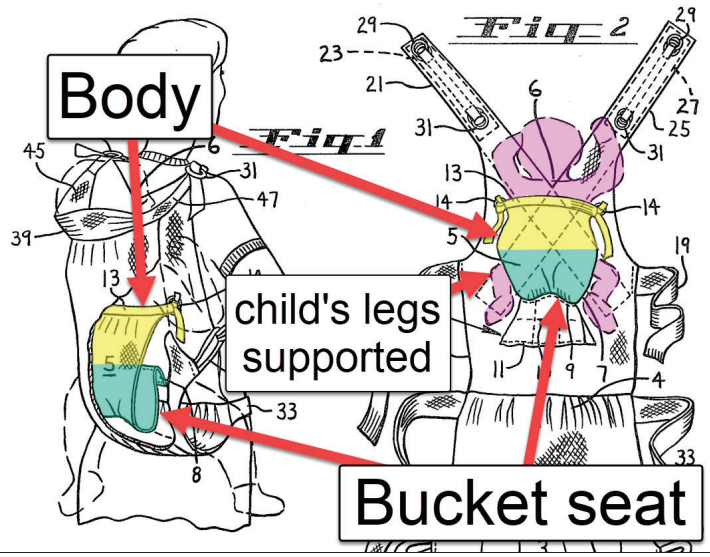


*"On the inside surface of the front member (2) is fastened an **inner seat (5)**"*[2]

*"A further object of the present invention is to provide a carrier having **an inner seat which will provide full support for an infant from its buttocks to its shoulder blades** when the child is secured in the carrier."*[3]

As shown above, the `808 discloses seat 5, which is a body configured to support the child. As described, and shown, this inner seat body support the child from their buttocks up to their shoulder blades.

1a – a body configured to support the child,	**Yes.** The `808 discloses a body configured to support the child.



[2] US 4,009,808 1:65-67, emphasis added
[3] US 4,009,808 1:37-40, emphasis added

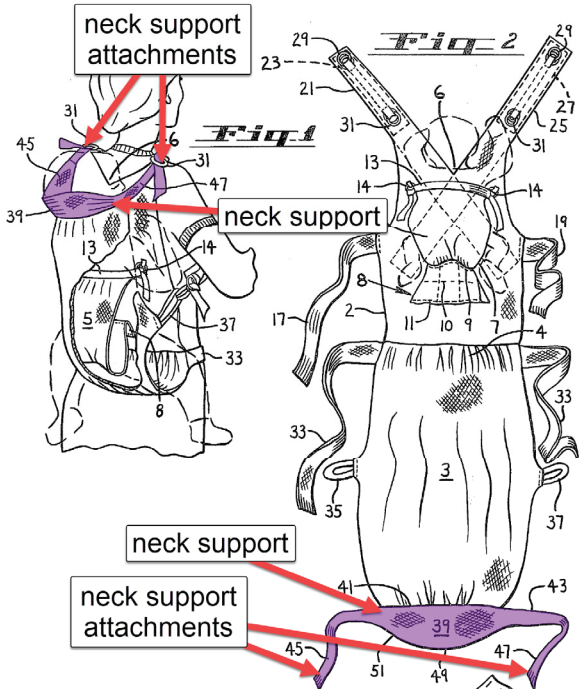
As discussed previously, the `808 discloses a baby carrier with a body. As shown above, the body forms a bucket seat which can be seen in the cupping action provided by the body that supports the child's buttocks and upper thigh portions of the legs.

"On the inside surface of the front member (2) is fastened an ***inner seat (5)****"*[4]

"A further object of the present invention is to provide a carrier having ***an inner seat which will provide full support for an infant from its buttocks to its shoulder blades*** *when the child is secured in the carrier."*[5]

As shown above, particularly in Figure 2 the bucket seat formed by the body supports not only the child's buttocks, but also the upper thigh portion of their legs.

1b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** The body forms a bucket seat, which is configured to support the legs of the child. A POSITA would understand that a bucket seat is a seat for a single user with a curved or contoured back.

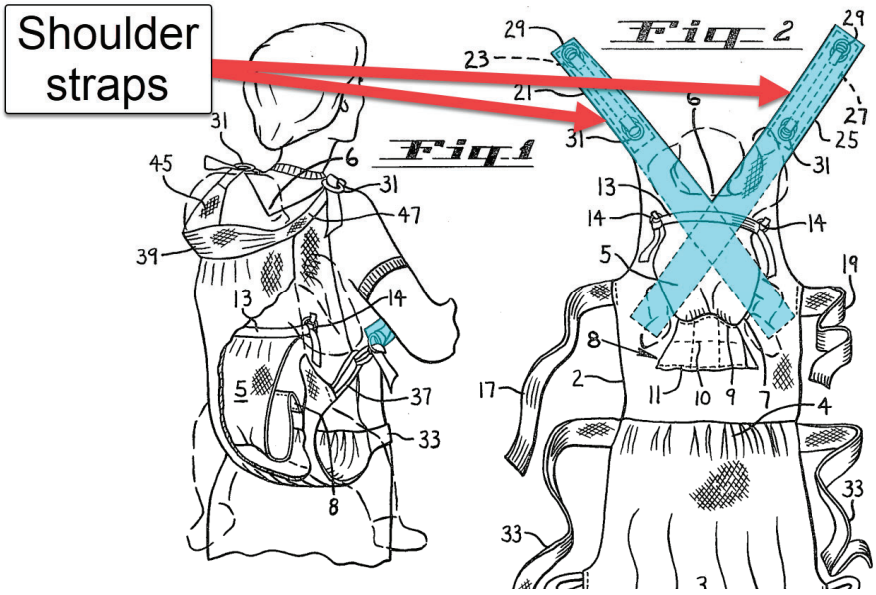


"Head support (39) is positioned about the child's shoulders so that center section (49) extends upward along the child's neck and the base of the skull."[6] The head support 39 supports the neck of the child, "[providing] a strong, pliable cup-like structure which will support the child's head from his neck up the base of the skull to the lower back of the head"[7] (i.e., a **"neck support"**).

"Support (39) is cut to form a thin left head support strap (45) and a right head support strap (47)."[8] The ends or end portions of the support straps 45, 47 define first and second attachments (i.e., a **"first**

[4] US 4,009,808 1:65-67, emphasis added
[5] US 4,009,808 1:37-40, emphasis added
[6] US 4,009,808, 3:4-7
[7] US 4,009,808, 3:15-18
[8] US 4,009,808, 2:38-40

neck support attachment" and a **"second neck support attachment"**) for connection to the retaining rings 31 of the shoulder straps.	
1c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** The `808 discloses a neck support comprising a first neck support attachment and a second neck support attachment.

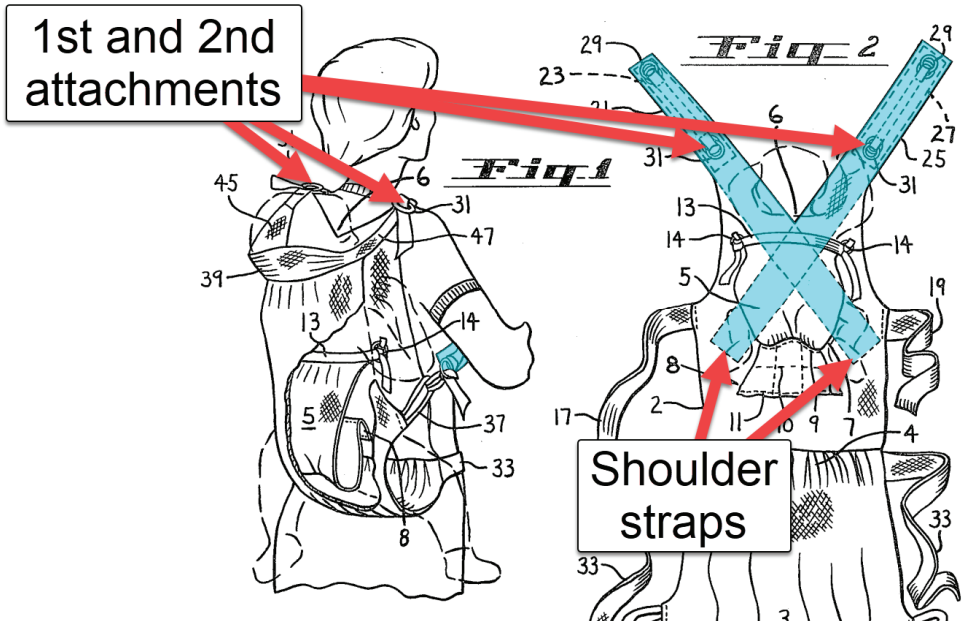


"A **left shoulder strap (21)** having a fixed shoulder pad (23) and a **right shoulder strap (25)** having a fixed shoulder pad (27) are sewn to and extend from the upper end of front member (2)."[9]

As shown above, the carrier has a first and second shoulder strap (identified as a left and right shoulder strap in the `808). As shown in figure 1 they are coupled to the body and are configured to extend over the shoulders of the user.

1d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user; **1e** – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** The `808 discloses a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user.  The `808 further discloses a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user.

[9] US 4,009,808, 2:12-15

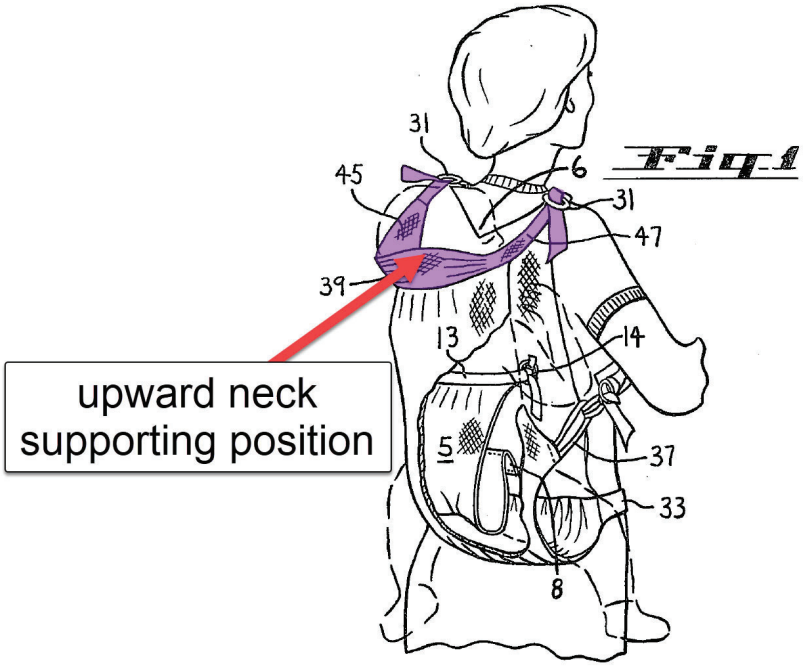


"Head strap retaining rings (31) are mounted on the shoulder straps (21) and (25) near the upper end of front member (2)"[10] (i.e., a **"first attachment"** and a **"second attachment"** disposed on the shoulder straps 21, 25).

The retaining rings 31 receive the support straps 45, 47 for securement (e.g., "Left and right head support straps (45) and (47) respectively are then **joined to head support rings (31)** and adjusted to a length suitable to provide proper support for the child's head."[11]).

1f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment; **1g** – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment	**Yes.** The `808 discloses a first attachment (loop 31) disposed on the first shoulder strap and configured to receive the first neck support attachment.  The `808 further discloses a second attachment (loop 32) disposed on the second shoulder strap and configured to receive the second neck support attachment.

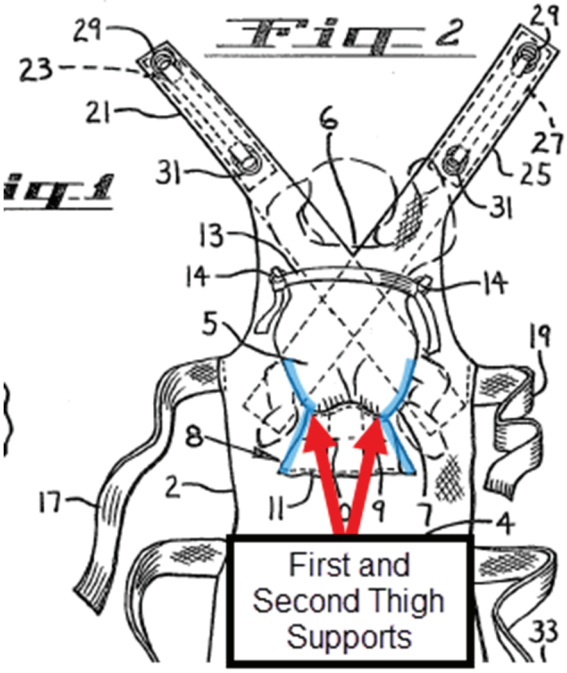
[10] US 4,009,808, 2:23-25
[11] US 4,009,808, 3:10-14



When the support straps 45, 47 are connected to retaining rings 31, the head support 39 extends upwards to support the child's neck. See Fig. 1 (showing head support 39 extending upwardly along the neck to the back of the child's head); "Head support (39) is positioned about the child's shoulders so that **center section (49) extends upward along the child's neck and the base of the skull.**"[12]

1h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** The `808 discloses that the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment.

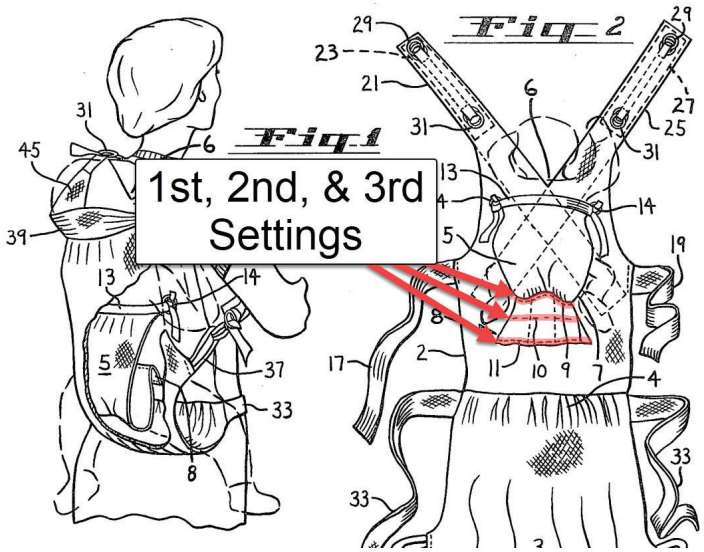
[12] US 4,009,808, 3:4-7, emphasis added



The inner seat 5 provides "full support for an infant from its buttocks to its shoulder blades,"[13] with the inner seat 5 having thigh support areas (e.g., lateral side portions or edges of inner seat 5) that wrap under and support the child's thighs when the child is secured in the carrier (a **"first thigh support"** for supporting the left thigh and a **"second thigh support"** for supporting the right thigh). *See* Fig. 2.

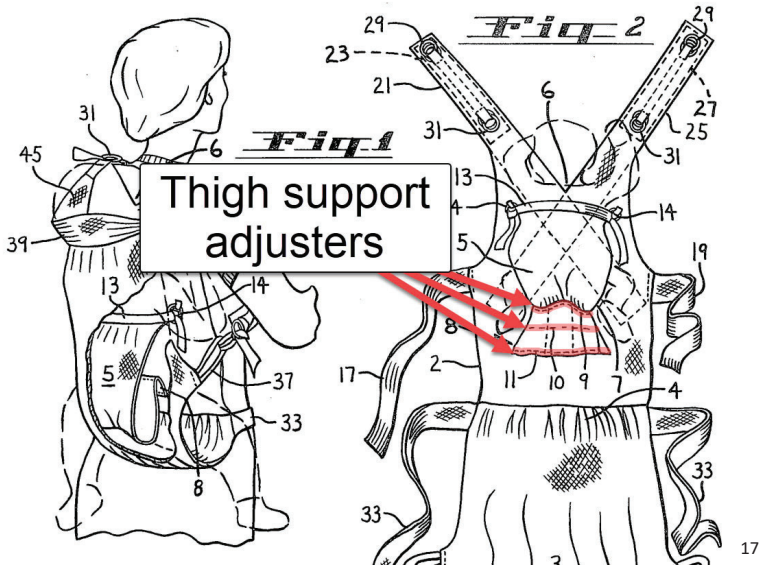
1i – the body forming a first thigh support and a second thigh support;	**Yes.** As shown below, the `808 discloses that the body forms a first thigh support and a second thigh support. As can be seen, the width of the thigh supports increases as the seams are removed to accommodate and support the child as it grows. Specifically, the patent states: "However, as the infant grows larger, seams (9), (10) and (11) may be progressively removed so that an increasingly wide portion of the bottom section (8) becomes available to support the child's buttocks and back as the child increases in size."[14] To the extent that it might be argued that the `808 does not disclose first and second thigh supports, The `730 discloses thigh supports for the child in the forward and rearward facing positions, and the benefits of providing thigh support would have been known to a person

[13] US 4,009,808, 1:38-40
[14] US 4,009,808, 2:58-65

	skilled in the art, such as improved comfort and spreading the load across a wider surface. The `730 discloses "support means 119a, 119b for the carried child's legs. The child is thus sitting in the so called frog-position also when facing forward."[15]
 "[A]s the infant grows larger, **seams (9), (10) and (11) may be progressively removed** so that an increasingly wide portion of the bottom section (8) becomes available to support the child's buttocks and back as the child increases in size."[16] The attachments of the seams 9, 10, 11 represent at least three different settings defined by the carrier (i.e., a **"first setting,"** a **"second setting,"** and a **"third setting"**).	
1j – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** The `808 discloses a first setting, a second setting, and a third setting defined by the adjustable child carrier.

[15] `730 Application [0043]

[16] US 4,009,808, 2:60-65



[17]

Seams 9, 10, 11 (i.e., **"at least one thigh support adjuster"**) stitch the thigh support areas of the inner seat 5 to the front member 2, with selective removal of the seams adjusting the thigh support areas. Selective removal of the seams 9, 10, 11 adjusts a width of the inner seat 5, adjusting the width of the seat's thigh support areas.

"The narrow section (7) and outwardly tapering wide bottom (8) of the seat (5) are secured to the inside of the front member (2) with a plurality of stitched seams (9), (10) and (11)."[18]

"[A]s the infant grows larger, seams (9), (10) and (11) may be progressively removed so that an increasingly wide portion of the bottom section (8) becomes available to support the child's buttocks and back as the child increases in size."[19]

As shown above, the `808 alone discloses at least one thigh support adjuster coupled to the first thigh support and the second thigh support. Further The `808 in view of the `730 discloses at least one thigh support adjuster coupled to the first thigh support and the second thigh support as shown below:

[17] US 4,009,808, Figure 1, 2, annotated
[18] US 4,009,808, 2:2-5
[19] US 4,009,808, 2:60-65

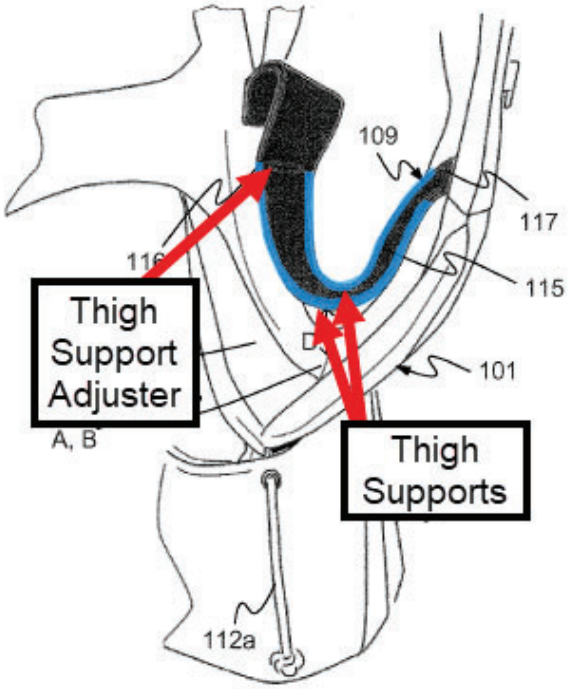


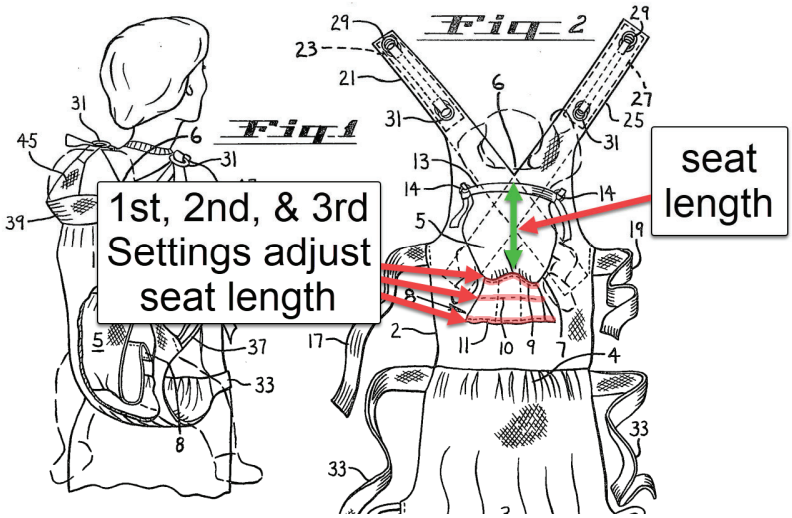
Fig. 6

The `730 discloses a child carrier having a bottom portion 109 providing a drooped seat (i.e., "bucket seat") for a baby, the bottom portion 109 having thigh support areas (e.g., lateral side portions or edges of bottom portion 109; **"thigh supports"**) that wrap under and support the baby's thighs when the baby is secured in the carrier.

Part 116 of the bottom portion 109 "is detachably attached to the stomach portion 118 by a hook-and-eye-connection" (i.e., **"at least one thigh support adjuster"**) to adjust the distance D between the bottom portion 109 and interface A, B, such as to move the thigh supports up and down, thereby "[providing] for adaption of the carrier 100 to suit both smaller children, using the higher position, as well as larger children, using the lower seat position." *See* paragraphs [0041] – [0042].

Thus, it would have been obvious to include the hook-and-eye-connection to further accommodate changes in child size and to allow adjustment in both directions. A person skilled in the art would be motivated to modify the carrier of the `808 based on the `730 because the adjuster of the `730 allows for reversible adjustment, rather than requiring seam ripping, which allows a user to re-use the carrier at different sizes for more than one child of different ages, such as for a younger sibling.

1k – at least one thigh support adjuster coupled to the first thigh support and the second thigh support,	**Yes.** The `808 alone, or in view of the `730 discloses at least one thigh support adjuster coupled to the first thigh support and the second thigh support.



Seams 9, 10, 11 are selectively removed to position the carrier in one of the first setting, the second setting, or the third setting, such as to adjust the seating position downward as the child grows. Moving the seating position downward adjusts a length of the inner seat 5 (e.g., from the seat's attachment at the top seam upward).

"[A]s the infant grows larger, **seams (9), (10) and (11) may be progressively removed** so that an increasingly wide portion of the bottom section (8) becomes available to support the child's buttocks and back as the child increases in size. As the child grows taller, **this ability to adjust the seating position downward allows the head to always be properly supported by the cup-like head support (39).**"[20]

As shown above, the `808 alone discloses element 1m. Further The `808 in view of the `730 discloses element 1m as shown below:

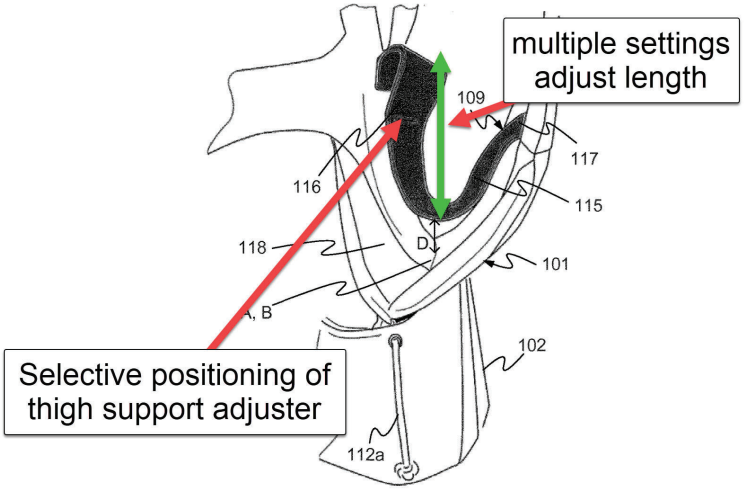
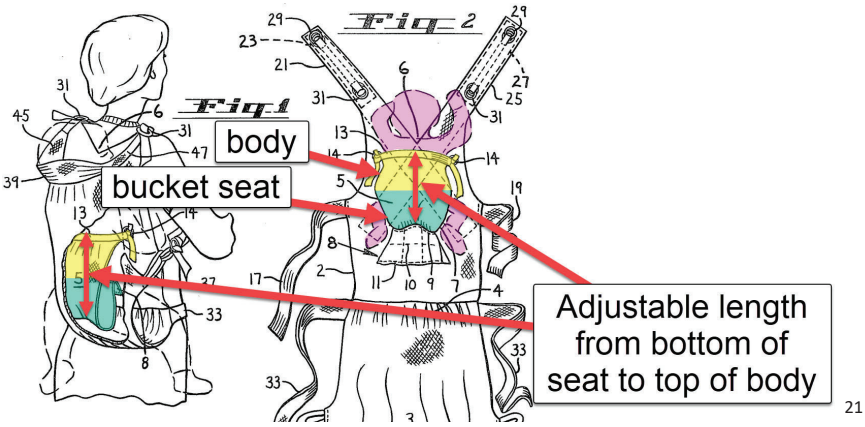


Fig. 6

The releasable second part 116 can be detachably attached to the stomach portion 118 (e.g., selectively positioned) in multiple positions to adjust a length of the bottom portion 109 for adaption

[20] US 4,009,808, 2:60-68, emphasis added

of the carrier 100, such as "to suit both smaller children … as well as larger children[.]" Paragraph [0042]. See also paragraph [0042] ("By the releasable second part 116, the height of the bottom portion 109 can be changed between two positions."). Thus, it would have been obvious to include the adjustable hook-and-eye-connection to further accommodate changes in child size and to allow adjustment in both directions.	
1m – wherein the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages,	**Yes.** The `808 alone, or in view of the `730 discloses that the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages. The `808 discloses seams as thigh support adjusters, that are removed to adjust the width of the thigh support, as well as the height of the body. These thigh support adjusters can be selectively positioned a single time to match the growth of an infant. To the extent the thigh support adjusters are interpreted as requiring adjusting in two directions, the seams of the `808 could be replaced with the hook and loop fasteners of the `730, which are positioned and function similarly to the seams of the `808. A POSITA would be motivated to replace the seams of The `808 with the hook and loop connectors of the `730 for adaptability or convenience, such as to allow adjustment in both directions. For example, it is well known that some families have more than one child, and while The `808 can be used for one child as it grows, replacing the thigh support adjuster seams with hook and loop, allows the carrier to be adjusted from the smallest setting for use, with a second smaller child. This would be nothing more than combining known elements and techniques with a reasonable expectation of success.



[21]

Selective removal of the seams 9, 10, 11 adjusts the length of the inner seat 5 from the bottom of the seat to the top of the body (e.g., from the lowermost portion of the bucket or drop of the seat 5 to the strap 13).

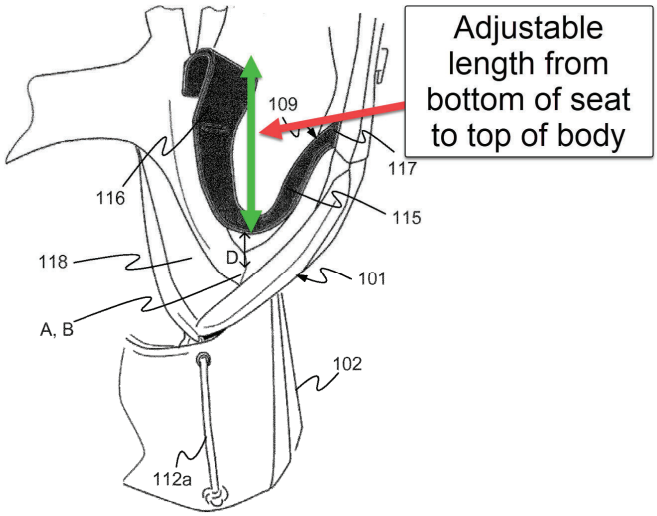


Fig. 6

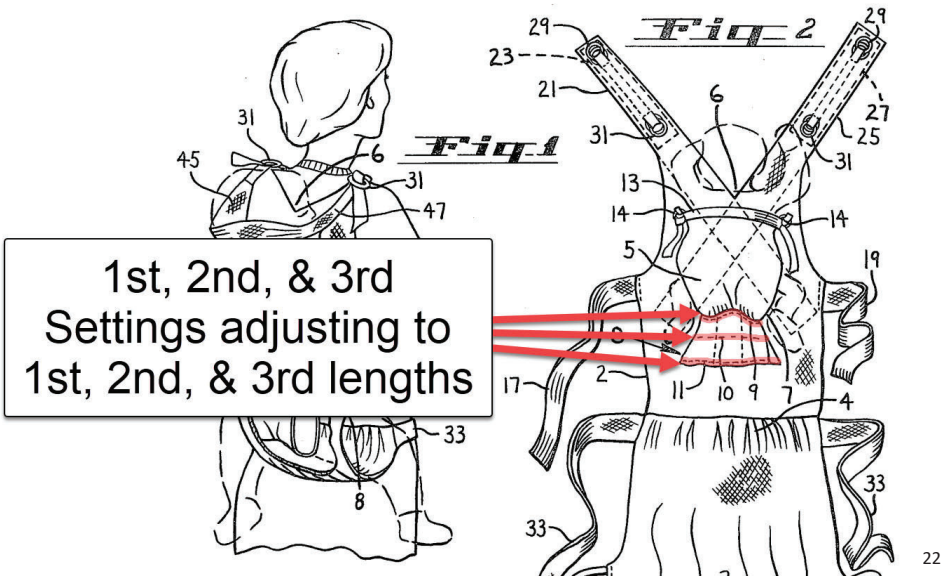
The `730 further discloses that selective attachment of the second part 116 adjusts the length of the bottom portion 109 from the bottom of the seat to the top of the body (e.g., from the lowermost portion of the bucket or droop of the bottom portion 109 to its uppermost portion, or top).

E.g., paragraph 0042: "With the hooks of the second part 116 attached in a first mode, a first, lower position is provided, as shown in FIG. 5, in which the bottom portion 109 follows the outline of a lower part of the front portion 101 and a lower part of the stomach portion 118. In a second, higher position, as shown in FIG. 6, the hooks of the second part 116 are attached in another mode, providing a distance D between the bottom portion 109 and the interface A, B between the front portion 101 and the stomach portion 118."

Thus, it would have been obvious to include the adjustable hook-and-eye-connection to further accommodate seat length adjustment. A POSITA would have been motivated to use the hook and loop fasteners of the `730 in place of the seams of the `808 to allow adjustment in both directions.

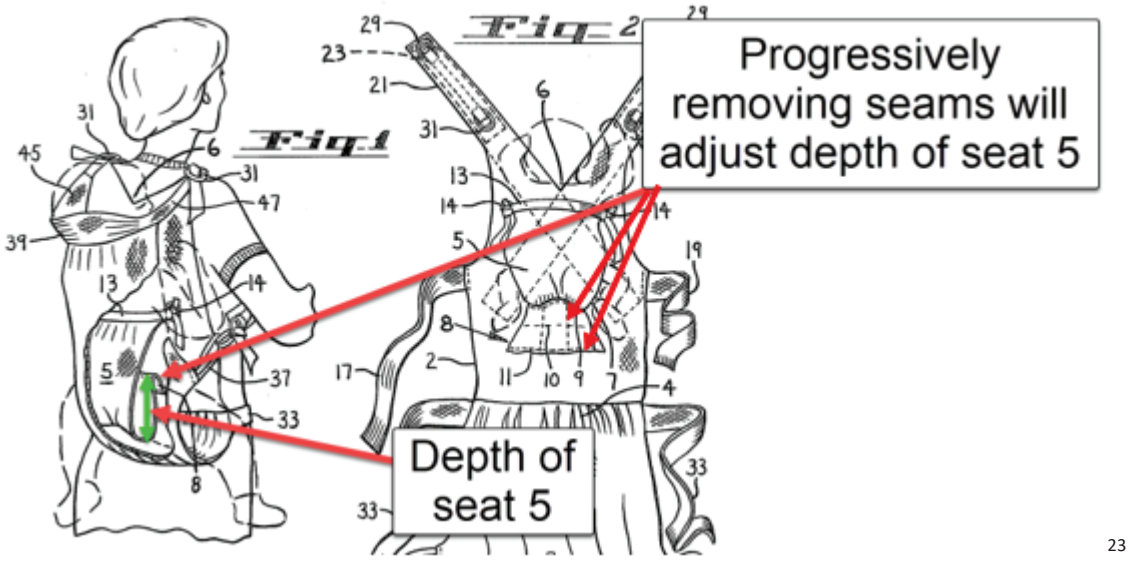
[21] US 4,009,808, Figure 1, 2, annotated

This would have been nothing more than substituting known methods and techniques with a reasonable expectation of success.	
1n – wherein the length is defined from a bottom of the bucket seat to a top of the body.	**Yes.** The `808 alone, or in view of the `730 discloses that the length is defined from a bottom of the bucket seat to a top of the body.

Anticipation and/or obviousness of Claim 2 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
2pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
 [22] As the seams 9, 10, 11 are progressively removed, the length of the inner seat 5 increases, such as to at least three different lengths. For example, a first length is defined from seam 9 to strap 13, a second length (greater than the first length) is defined from seam 10 to strap 13, and a third length (greater than the second length) is defined from seam 11 to strap 13.	
2a – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length, **2b** – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length, **2c** – wherein selectively positioning the at least one thigh support adjuster at the third setting	**Yes.** The `808 alone, or in view of the `730 discloses selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length. Further, the `808 discloses selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length.

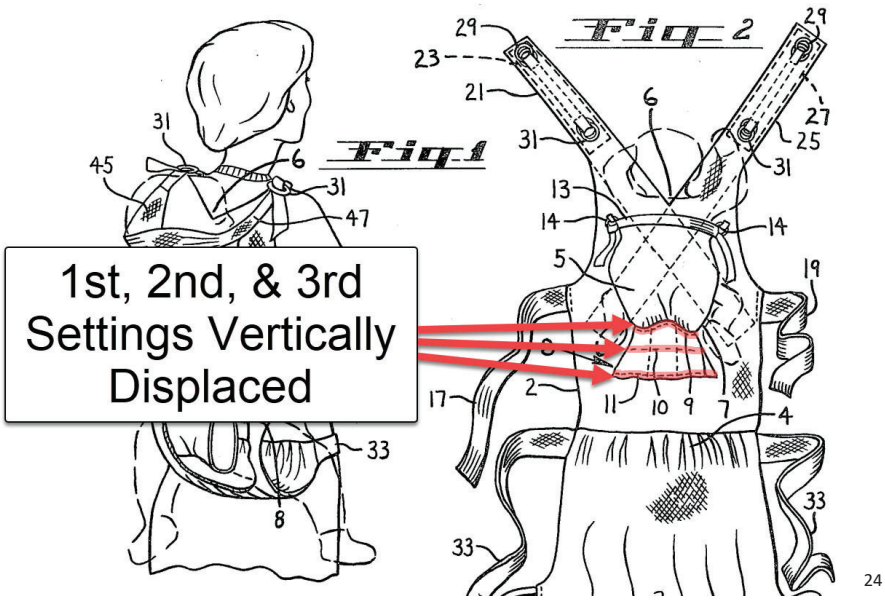
[22] US 4,009,808, Figure 1, 2, annotated

adjusts the length of the body to a third length greater than the second length.	Further, the `808 discloses selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.

Anticipation and/or obviousness of Claim 3 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
3 pre – The child carrier of claim 1,	**Yes.** See claim 1 above.
 [23] Selective removal of the seams 9, 10, 11 adjusts a depth of the inner seat 5, such as the dimension from the seam attachment to the bottom of the seat (e.g., the depth of droop below the seam attachment). See Fig. 1. The additional material available once a seam has been removed allows additional height and depth of the bucket seat.	
3a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** The `808 alone, or in view of the `730 discloses that adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.

Anticipation and/or obviousness of Claim 4 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730

[23] US 4,009,808, Figure 1, 2, annotated

Claim Element	Does the Prior Art have the Element?
4 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
 [24] The first setting (at seam 9) is vertically displaced above the second setting (at seam 10) (e.g., seam 9 is vertically positioned above seam 10). Similarly, the second setting (at seam 10) is vertically displaced above the third setting (at seam 11) (e.g., seam 10 is vertically positioned above seam 11). The second setting (at seam 10) is between the first setting (at seam 9) and the third setting (at seam 11), such as positioned vertically between the first and third settings.	
4a – wherein the first setting is at least partially vertically displaced from the second setting,	**Yes.** The `808 discloses that the first setting is at least partially vertically displaced from the second setting.
4b – the second setting is at least partially vertically displaced from the third setting,	Further, the `808 discloses that the second setting is at least partially vertically displaced from the third setting.
4c – and the third setting is at least partially vertically displaced from the first setting,	Further, the `808 discloses that the third setting is at least partially vertically displaced from the first setting.
4d – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	Further, the `808 discloses that the third setting is at least partially vertically displaced from the first setting.

Anticipation and/or obviousness of Claim 5 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**

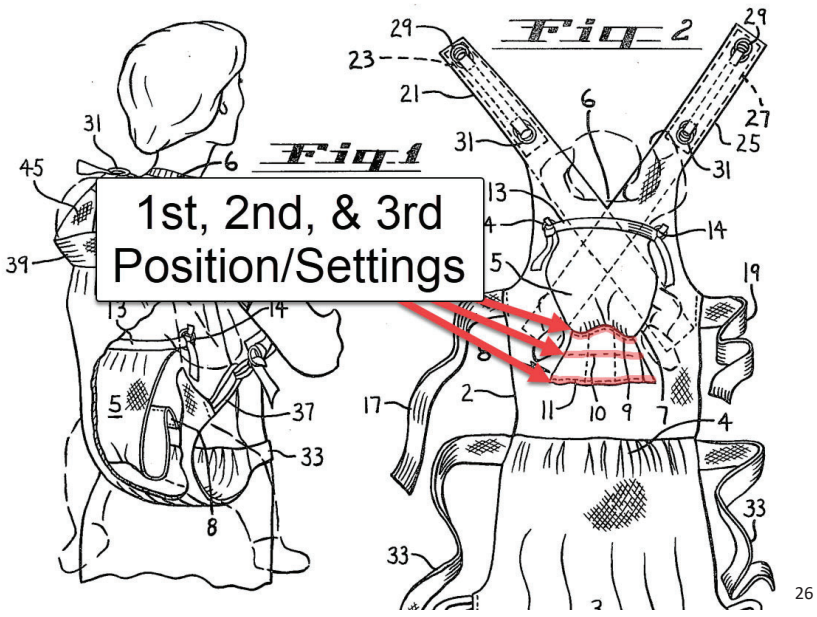
[24] US 4,009,808, Figure 1, 2, annotated

5 pre – The adjustable child carrier of claim 2,	**Yes.** See claim 2 above.
The first setting (seam 9) and associated length defines the smallest length of the inner seat 5, such as for an infant. "It is contemplated that the back and buttocks **<u>of a small infant</u>** will be supported by the narrow section (7)."[25] A height range of 20-24 inches is average/standard for a 0-3 month infant. *See, e.g., What is the average length for a baby?*, MedicalNewsToday, updated March 31, 2023 (last viewed August 5, 2024), available at https://www.medicalnewstoday.com/articles/324728 (Ex. 1010).	
5a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, **5b** – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** The `808 discloses adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode.  Further, the `808 discloses an infant mode. It is well known to a POSITA that an infant in the 0-3 month range has a height of approximately 20-24 inches as shown in the "what is the average length for a baby" article in MedicalNewsToday cited below. Thus, the carrier of the `808 is configured to carry the child when the child has a height within a range of 20-24 inches.

Anticipation and/or obviousness of Claim 6 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
6 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** See claim 1 pre above.
6a – a body configured to support the child between the body and a torso of the user,	**Yes.** See element 1a above.
6b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See element 1b above.
6c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See element 1c above.
6d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See element 1d above.
6e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See element 1e above.

[25] US 4,009,808, 2:58-60

6f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See element 1f above.
6g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See element 1g above.
6h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** See element 1h above.
6i – the body forming a first thigh support and a second thigh support;	**Yes.** See element 1i above.
6j – at least one thigh support adjuster coupled to the first thigh support and the second thigh support; and	**Yes.** See element 1k above.



[26]

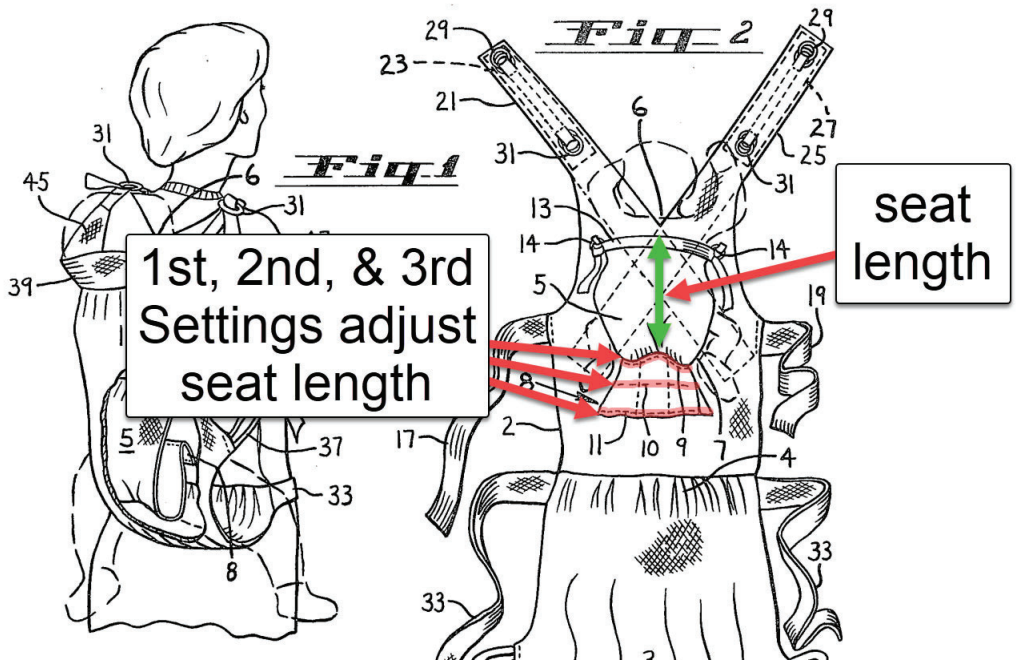
"[A]s the infant grows larger, **seams (9), (10) and (11) may be progressively removed** so that an increasingly wide portion of the bottom section (8) becomes available to support the child's buttocks and back as the child increases in size." [27]

The attachments of the seams 9, 10, 11 represent at least three different positions/settings defined by the carrier (i.e., a "first position corresponding to a first setting," a "second position corresponding to a second setting," and a "third position corresponding to a third setting").

6k – a first position, a second position, and a third position defined by the adjustable child carrier,	**Yes.** The `808 discloses a first position, a second position, and a third position defined by the adjustable child carrier.

[26] US 4,009,808, Figure 1, 2, annotated
[27] US 4,009,808, 2:60-65

6l – wherein the first position corresponds to a first setting, the second position corresponds to a second setting, and the third position corresponds to a third setting,	The `808 further discloses that the first position corresponds to a first setting, the second position corresponds to a second setting, and the third position corresponds to a third setting.



Seams 9, 10, 11 are selectively removed to position the carrier in one of the first setting, the second setting, or the third setting, such as to adjust the seating position downward as the child grows. Moving the seating position downward adjusts a length of the inner seat 5 (e.g., from the seat's attachment at the top seam upward).

"[A]s the infant grows larger, **seams (9), (10) and (11) may be progressively removed** so that an increasingly wide portion of the bottom section (8) becomes available to support the child's buttocks and back as the child increases in size. As the child grows taller, this ability to adjust the seating position downward allows the head to always be properly supported by the cup-like head support (39)."[28]

As shown above, the `808 alone discloses element 6m. Further The `808 in view of the `730 discloses element 6m as shown below:

[28] US 4,009,808, 2:60-68

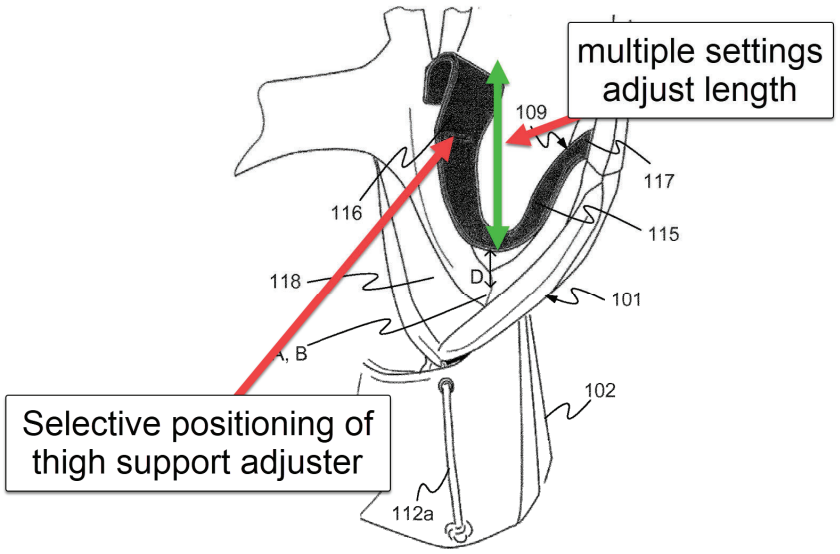


Fig. 6

The releasable second part 116 can be detachably attached to the stomach portion 118 (e.g., selectively positioned) in multiple positions to adjust a length of the bottom portion 109 for adaption of the carrier 100, such as "to suit both smaller children … as well as larger children[.]" Paragraph [0042]. See also paragraph [0042] ("By the releasable second part 116, the height of the bottom portion 109 can be changed between two positions.").

Thus, it would have been obvious to include the adjustable hook-and-eye-connection to further accommodate changes in child size and allow adjustment in both directions.

6m – wherein adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure the adjustable child carrier to one of the first setting, the second setting, or the third setting,	**Yes.** The `808 discloses adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure the adjustable child carrier to one of the first setting, the second setting, or the third setting.
6n – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See element 1n.

Anticipation and/or obviousness of Claim 7 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**

7 pre – "The adjustable child carrier of claim 6, **7a** – "wherein adjustment of the at least one thigh support adjuster from the first position to the second position adjusts the length of the body from a first length to a second length, **7b** – "the second length being greater than the first length, **7c** – "wherein adjustment of the at least one thigh support adjuster from the second position to the third position adjusts the length of the body from the second length to a third length, **7d** – "the third length being greater than the first length and the second length.	**Yes.** See claim 2 above.

Anticipation and/or obviousness of Claim 8 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
8 pre – The adjustable child carrier of claim 6, **8a** – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 3 above.

Anticipation and/or obviousness of Claim 9 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
9 pre – The adjustable child carrier of claim 6, **9a** – wherein the first position is at least partially vertically displaced from the second position, **9b** – the second position is at least partially vertically displaced from the third position, **9c** – and the third position is at least partially vertically displaced from the first position, **9d** – wherein the adjustable child carrier defines the second position between the first position and the third position.	**Yes.** See claim 4 above.

Anticipation and/or obviousness of Claim 10 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**

10 pre – The adjustable child carrier of claim 7, **10a** – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, **10b** – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

Anticipation and/or obviousness of Claim 11 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
11 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** See claim 1 pre above.
11a – a body configured to support the child,	**Yes.** See element 1a above.
11b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See element 1b above.
11c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See element 1c above.
11d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See element 1d above.
11e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See element 1e above.
11f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See element 1f above.
11g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See element 1g above.
11h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** See element 1h above.
A POSITA would understand that folding the head support 39 down and away from the user will configure the head support 39 in an outside folded down position, thereby reducing a body length compared to the upward neck supporting position. Element 11i is also made obvious by the `808 in view of The `730.	

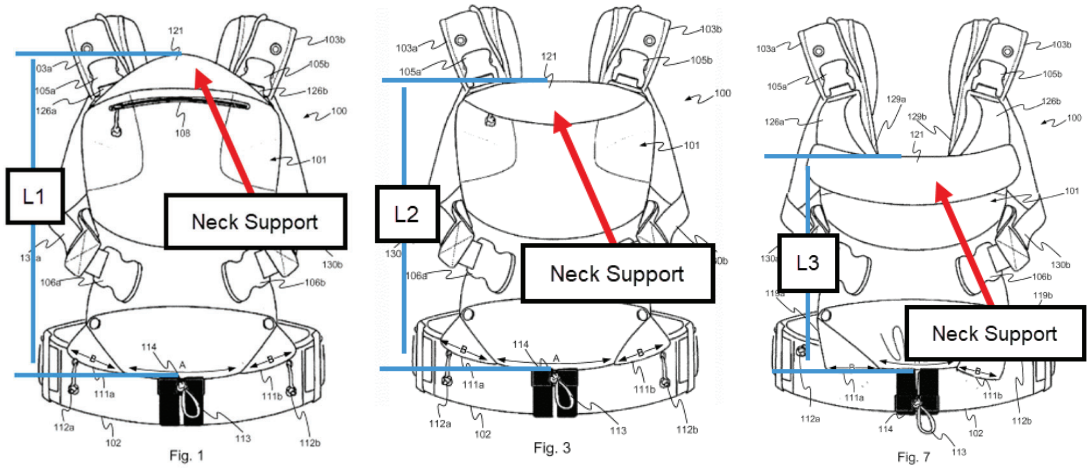
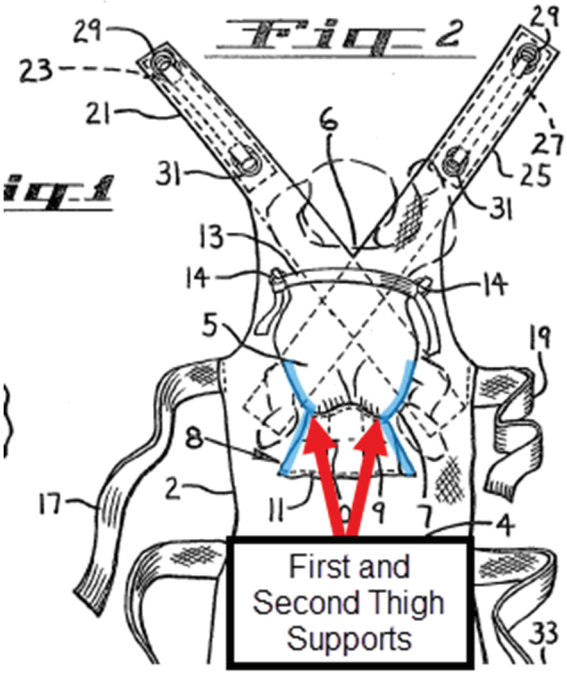


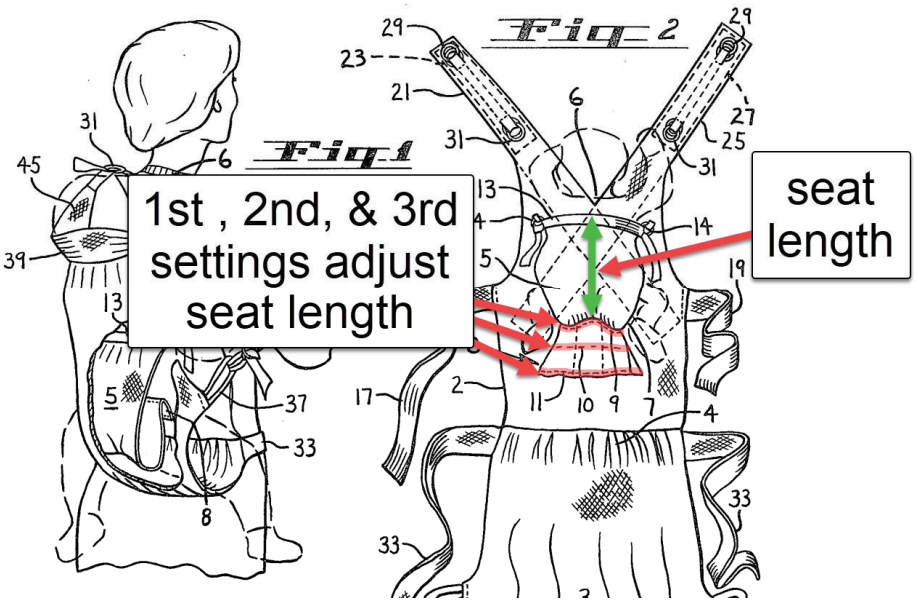
Fig. 1 Fig. 3 Fig. 7

The `730 discloses an upper part 121 that "provides support for the child's head (a **"neck support"**), the upper part 121 foldable or lowered, "such that the child's head becomes more free." Paragraph [0039]. *See also* paragraph [0039] "An upper part 121 of the front portion 101 is foldable into at least two positions … A third position of the upper part 121 is shown in FIG. 7, in which it is completely **folded down**[.]")

11i – wherein folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position;	**Yes.** The `808 alone, or the `808 in view of the `730 discloses that folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position.
11j – the body forming a first thigh support and a second thigh support;	**Yes.** See element 1i.



The inner seat 5 provides "full support for an infant from its buttocks to its shoulder blades,"[29] with the inner seat 5 having thigh support areas (e.g., lateral side portions or edges of inner seat 5) that wrap under and support the child's thighs when the child is secured in the carrier (a **"seat"** formed by the body and thigh support areas of inner seat 5 in combination). *See* Fig. 2.	
11k – wherein the body, the first thigh support, and the second thigh support in combination form a seat for the child;	**Yes.** The `808 discloses that the body, the first thigh support, and the second thigh support in combination form a seat for the child;
11l – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** See element 1j above.
11m – at least one thigh support adjuster coupled to the first thigh support and the second thigh support,	**Yes.** See element 1k above.



Seams 9, 10, 11 are selectively removed to position the carrier in one of the first setting, the second setting, or the third setting, such as to adjust the seating position downward as the child grows. Moving the seating position downward adjusts a length of the inner seat 5 (e.g., from the seat's attachment at the top seam upward).

"[A]s the infant grows larger, **seams (9), (10) and (11) may be progressively removed** so that an increasingly wide portion of the bottom section (8) becomes available to support the child's buttocks and back as the child increases in size. As the child grows taller, **this ability to adjust the seating position downward allows the head to always be properly supported by the cup-like head support (39)**."[30]

As shown above, the `808 discloses element 11n. Further, the `808 in view of The `730 renders element 11n obvious as shown below:

[29] US 4,009,808, 1:38-40

[30] US 4,009,808, 2:60-68, emphasis added

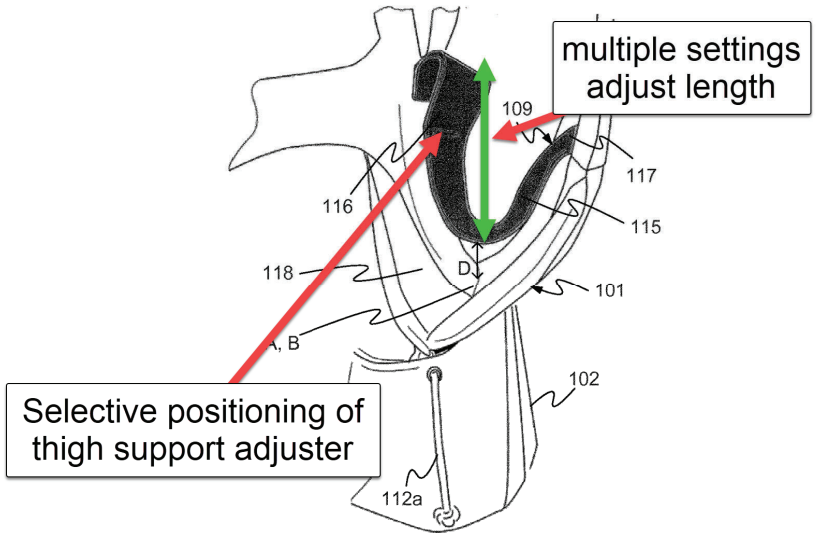


Fig. 6

The releasable second part 116 can be detachably attached to the stomach portion 118 (e.g., selectively positioned) in multiple positions to adjust a length of the bottom portion 109 for adaption of the carrier 100, such as "to suit both smaller children … as well as larger children[.]" Paragraph [0042]. *See also* paragraph [0042] ("By the releasable second part 116, the height of the bottom portion 109 can be changed between two positions.").

Thus, it would have been obvious to include the adjustable hook-and-eye-connection to further accommodate changes in child size. This would be nothing more than substituting one known element for another with a reasonable expectation of success. Using hook and loop would allow the carrier to be used for a second child, allowing adjustment of length in both directions.

11n – wherein selective positioning of the at least one thigh support adjuster at the first setting, the second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages,	**Yes.** The `808 and the `730 disclose that selective positioning of the at least one thigh support adjuster at the first setting, the second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages.
11o – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See element 1n above.

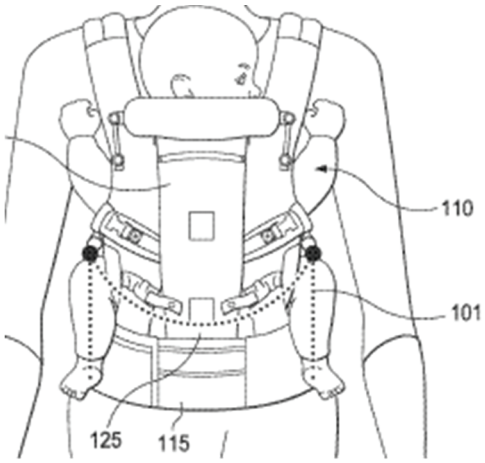
Anticipation and/or obviousness of Claim 12 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
12 pre – "The adjustable child carrier of claim 11, **12a** – "wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 3 above.

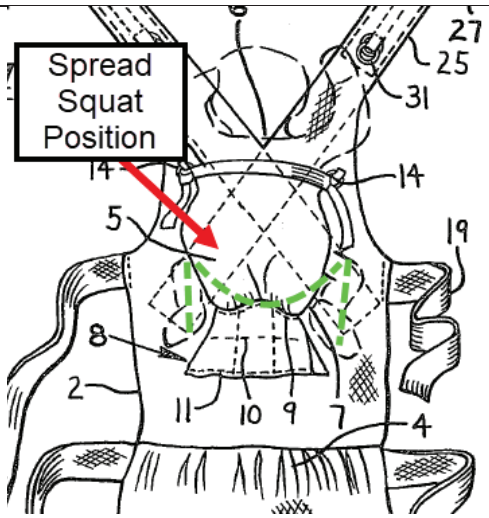
Anticipation and/or obviousness of Claim 13 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**

13 pre – The adjustable child carrier of claim 11, **13a** – wherein the first setting is at least partially vertically displaced from the second setting, **13b** – the second setting is at least partially vertically displaced from the third setting, **13c** – and the third setting is at least partially vertically displaced from the first setting, **13d** – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** See claim 4 above.

Anticipation and/or obviousness of Claim 14 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
14 pre – The adjustable child carrier of claim 11, **14a** – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length, **14b** – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length, **14c** – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** See claim 2 above.

Anticipation and/or obviousness of Claim 15 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730 and Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
15 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
The `808 discloses that the seat supports the child in the spread squat or M position described in the `055 patent. The position with line 101 from the `055 patent is shown below, a similar line showing the spread squat or M position is shown on Figure 2 of the `808 on the right below.	



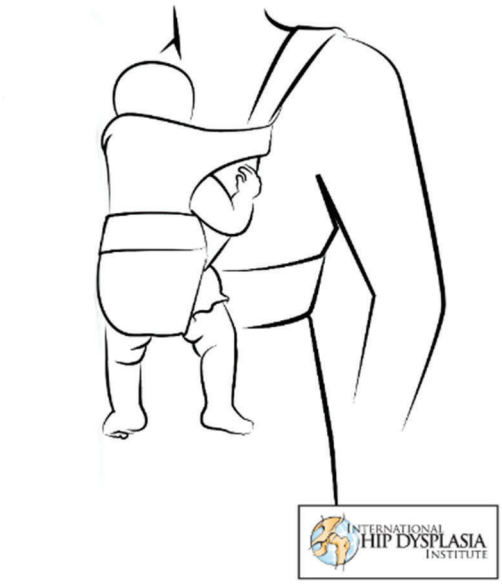


Further, The `808 in view of the knowledge of a person of ordinary skill in the art and the `730 renders element 15a obvious. The `730 discloses the carrier configured to carry children in a frog position, with legs spread or splayed outward (i.e., **"a spread squat position"**).

E.g., `730 application, paragraph 0016: "Since it is recommended by pediatrics that carried children sit **in the so-called frog-position**, in which their upper legs are substantially parallel with the ground, and their knees at substantially the same level as their hips, it is advantageous for a baby carrier to provide this seating option" (emphasis added).

E.g., `730 application, paragraph 0044: "Support for the child's legs is provided by the disengaged parts B, meaning that the child is sitting **in the so-called frog position** also when facing forward" (emphasis added).

Not Recommended:



Better:



15a – wherein the seat is configured to support the child in a spread squat position.	**Yes.** The `808 discloses that the seat is configured to support the child in a spread squat position. Further, it was well known to a POSITA to support a child in a spread squat position to promote natural hip development. As early as 2014, the Internation Hip Dysplasia Institute taught that "The healthiest position for the hips is for the hips to fall or spread (naturally) apart to the side, with the thighs supported and the hips and knees bent. This position has been called the jockey position, straddle position, frog position, spread-squat position or human position."[31]

Anticipation and/or obviousness of Claim 19 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
19 pre – The adjustable child carrier of claim 1, **19a** – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

Anticipation and/or obviousness of Claim 20 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
20 pre – The adjustable child carrier of claim 6, **20a** – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

Anticipation and/or obviousness of Claim 21 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
21 pre – The adjustable child carrier of claim 5,	**Yes.** See claim 5 above.
"A further object of the present invention is to provide a carrier having an inner seat which is adjustable and removable **to compensate for changes in a child's body size as it grows**."[32] "[A]s the infant grows larger, seams (9), (10) and (11) may be progressively removed so that an increasingly wide portion of the bottom section (8) becomes available to support the child's buttocks and back **as the child increases in size**."[33]	

[31] https://web.archive.org/web/20140208144252/http:/hipdysplasia.org/developmental-dysplasia-of-the-hip/prevention/baby-carriers-seats-and-other-equipment/ (Ex. 1012)
[32] US 4,009,808, 1:33-36
[33] US 4,009,808, 2:60-65

"**As the child grows taller, this ability to adjust the seating position** downward allows the head to always be properly supported by the cup-like head support (39)."[34] The term infant refers to a baby until they are about 1 year old.[35] "Most experts suggest toddlerhood starts at 1 year of age. This is the time when many babies are ready to "toddle" – to take those first shaky steps."[36] A height range of at least 28 inches is average/standard for toddlers 1 year and older. *See, e.g., What is the average length for a baby?*, MedicalNewsToday, updated March 31, 2023 (last viewed August 5, 2024), available at https://www.medicalnewstoday.com/articles/324728 (Ex. 1010). The `808 states it is for an infant, and can be used as the child grows. A POSITA would recognize that an infant grows into a toddler. For example, the `692 discloses that being able to rotate the carrier allows it to be able to be used for a longer period of time, from an infant to 24 or 36 months old. Specifically, the `692 states: "To be able to use a baby carrier during a longer period of time, i.e. for carrying an infant until it is about 24 months, alternatively about 36 months, it would be desirable if the baby carrier can be carried both on the chest side and the back side of a wearer, since, when a child gets heavier, it is advantageously carried on the back side of the wearer."[37] A POSITA would recognize that a child 24-36 months old is at least 28 inches in height.	
21a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** The `808 alone, or with the ordinary skill of a POSITA discloses that adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.

Anticipation and/or obviousness of Claim 22 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
22 pre – The adjustable child carrier of claim 10, **22a** – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 23 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**

[34] US 4,009,808, 2:65-68
[35] https://www.pampers.com/en-us/baby/development/article/newborn-baby-toddler-age (Ex. 1018)
[36] https://www.pampers.com/en-us/baby/development/article/newborn-baby-toddler-age (Ex. 1018)
[37] `692 Application [0002]

23 pre – The adjustable child carrier of claim 14, **23a** – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

Anticipation and/or obviousness of Claim 24 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
24 pre – The adjustable child carrier of claim 23, **24a** – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 28 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
28 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.

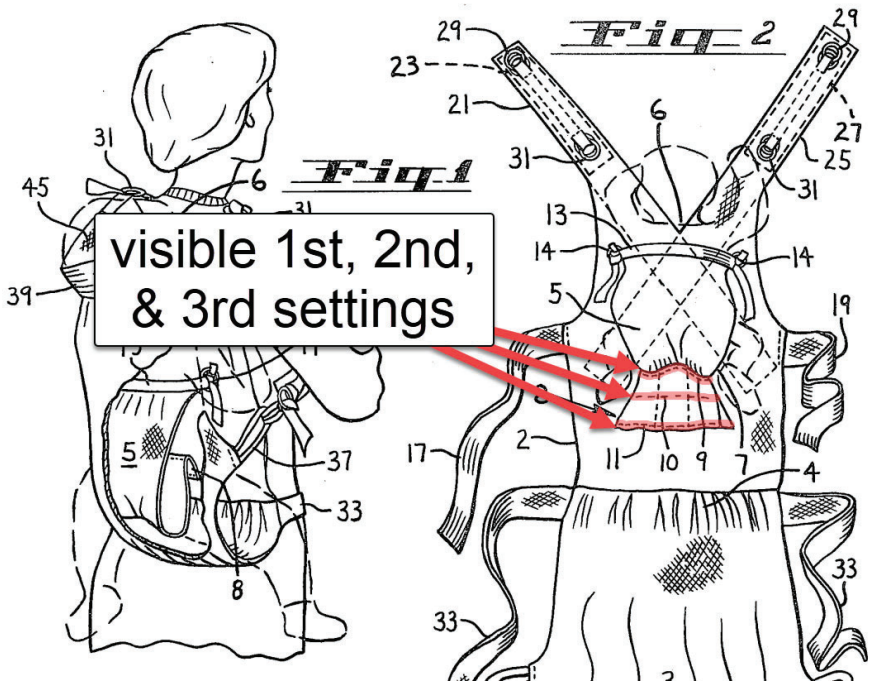


Fig. 2 illustrates seams 9, 10, 11 being visible to the user, such as to allow the user to visibly identify the current setting or adjust the inner seat 5 to a different setting.

28a – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** The `808 discloses that each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.

Anticipation and/or obviousness of Claim 29 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
29 pre – The adjustable child carrier of claim 6, **29a** – wherein each of the first position, the second position, and the third position is visible to the user for the adjustment of the at least one thigh support adjuster.	**Yes.** See claim 28 above.

Anticipation and/or obviousness of Claim 30 of the US Patent No. 11,786,055 by US Pat. No. 4,009,808 in view of US Pat. App. Pub. No. 2018/0199730	
Claim Element	**Does the Prior Art have the Element?**
30 pre – The adjustable child carrier of claim 11, **30a** – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** See claim 28 above.

APPENDIX F

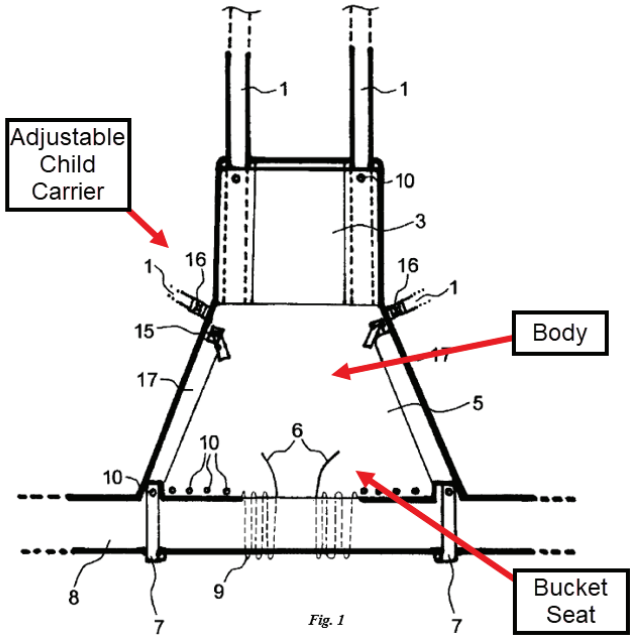
<table>
<tr><th colspan="2">Anticipation and/or obviousness of Claim 1 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of US Pat. App. Pub. No. 2018/0199730 to Lundh and Ordinary Skill in the Art</th></tr>
<tr><th>Claim Element</th><th>Does the Prior Art have the Element?</th></tr>
<tr><td colspan="2">


Fig. 1

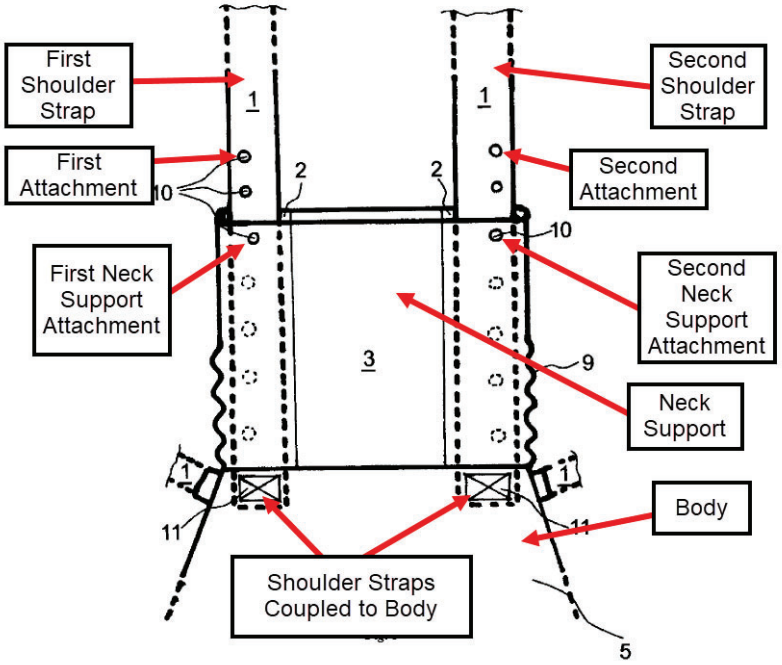
“The adjustment of required width of the bottom end of the back support 5 is performed by moving the eyelets 7 along the hip belt 8 and they are secured using safety components 10, in this case press buttons.”[1]

“In the narrowest position, the extra fabric on the bottom parts of the seat section of the back support 5 is pulled together with a lace 14 and attachment 14.” [2]

“The eyelets 7 are connected with a fastening lace 4, which is fastened in the fastening clip 15, sewn to the bottom part of the head rest 3. By pulling the fastening lace 4, clip 15 pulls the back rest 5 at the loop 17; thus, the height of the back rest is decreased by compression 9.”[3]
</td></tr>
<tr><td>1pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising</td><td>Yes. As shown above, the `531 discloses an adjustable child carrier for supporting a child by a user.</td></tr>
</table>

[1] `531 Patent Pg. 3
[2] `531 Patent Pg. 3
[3] `531 Patent Pg. 3

	The `531 states: "This invention relates to a child carrier for carrying babies and children on the body of the carrying person" and that "the aim of the invention is to execute a child carrier that would allow problem-free regulation of the carrier size, thus developing a carrier that can be regulated based on the child's growth."
1a – a body configured to support the child,	**Yes.** As shown above, the `531 discloses a body configured to support the child. The body is shown as back support 5.  The `531 states that "The fastening clip 15 can be used to adjust the compression of the sides of the back support 5 to allow the fabric to provide an optimal support for the child's legs in all positions of the back support width."
1b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** As shown above, the `531 discloses a body that forms a bucket seat configured to support the legs of the child.  The back support 5 forms a bucket seat, a seat for a single child with a back that conforms to and curves around the back of the child.  The `531 further teaches that the bucket seat is configured to support the legs of the child. It states that "the sides of the back support… provide an optimal support for the child's legs in all positions of the back support width."

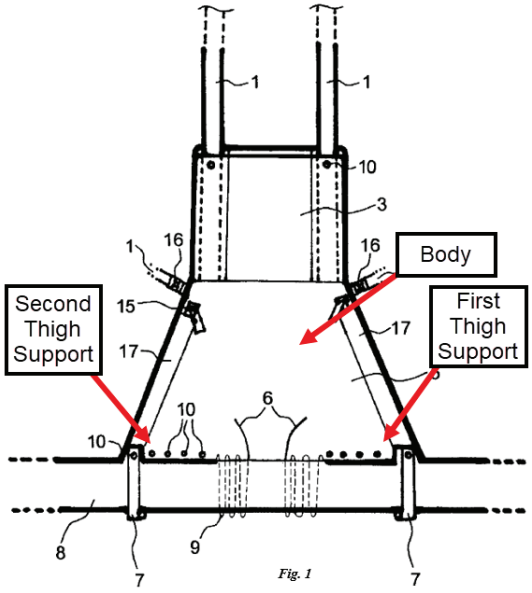


The `531 patent discloses head rest 3 which supports the head and neck of the child. Shoulder straps 1 pass through sleeves 2 of the headrest 3 and are stitched to the back support 5. The headrest 3 is adjustably attached to the shoulder straps by safety components 10, which are described as press buttons. Press buttons have two parts (top and bottom). An example of the two parts of a press button is shown below:



Multiple instances of the bottom part of the press button safety device are positioned along the length of the shoulder straps 1. The top part of a press button is attached at the top of sleeve 2 (one on each side).

1c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** As shown above, the `531 discloses a neck support comprising a first neck support attachment and a second neck support attachment

1d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** As shown above, the `531 discloses a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user.
1e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** As shown above, the `531 discloses a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user.
1f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** As shown above, the `531 discloses a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment.
1g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment;	**Yes.** As shown above, the `531 discloses a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment.
1h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** As shown above, the `531 discloses the neck support configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment (bottom part of the press button positioned highest on the shoulders straps).
 *Fig. 1*	
1i – the body forming a first thigh support and a second thigh support;	**Yes.** As shown above, the `531 discloses a first thigh support and a second thigh support formed by the body. A person skilled in the art would appreciate that the indicated portions of the carrier of the `531 can be positioned to provide support for a child's thighs in a similar manner to the other prior art references discussed in my analysis, such as the `692 discussed in Appendix A.

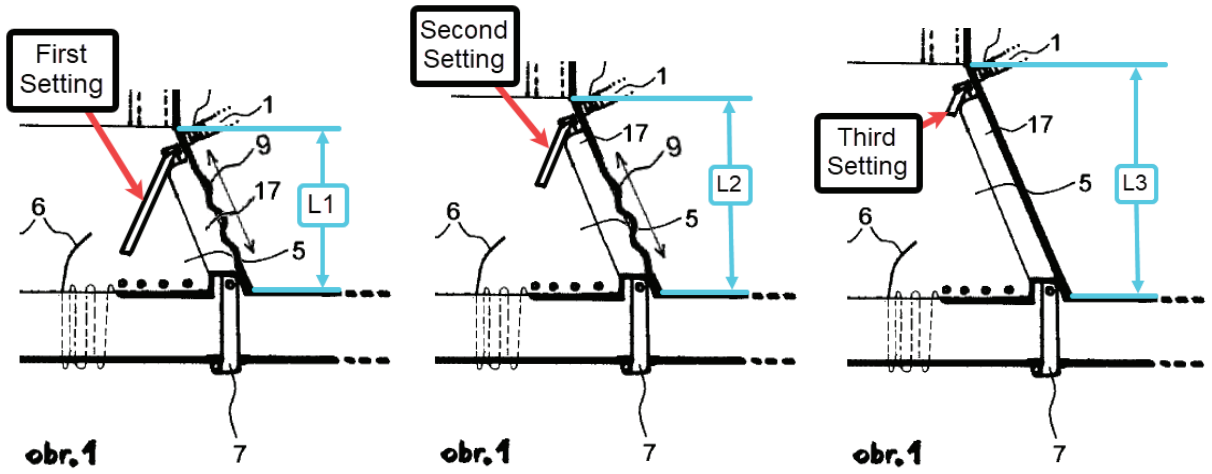


Fig 1 is modified above (left and center, right is original) to illustrate the three settings pulling the drawstring 4 through the fastening clip 15 to shorten the drawstring 4. The drawstring 4 is attached to the waistbelt at 7. "By pulling the fastening lace 4, clip 15 pulls the back rest 5 at the loop [7]; thus, the height of the back rest is decreased by compression."[4]

1j – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** The `531 discloses a first setting, a second setting and a third setting defined by the adjustable child carrier. The drawstring 4 is attached to the waistbelt at 7. "By pulling the fastening lace 4, clip 15 pulls the back rest 5 at the loop [7]; thus, the height of the back rest is decreased by compression."[5] To the extent that first, second and third settings are not explicitly disclosed, they would have been obvious to a POSITA as both continuous and discrete positioning systems were known, as evidenced by adjustment systems for the back support and the neck support.

[4] The `531 Patent pg 3 para 2
[5] The `531 Patent pg 3 para 2

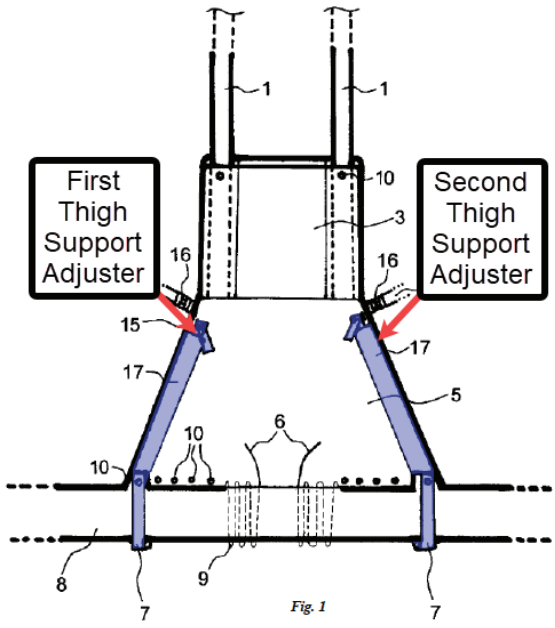


Fig. 1

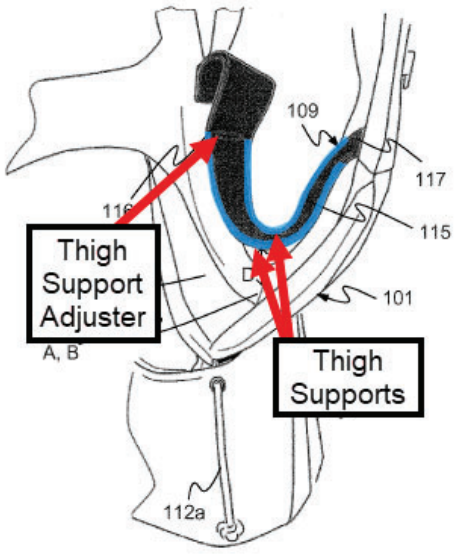


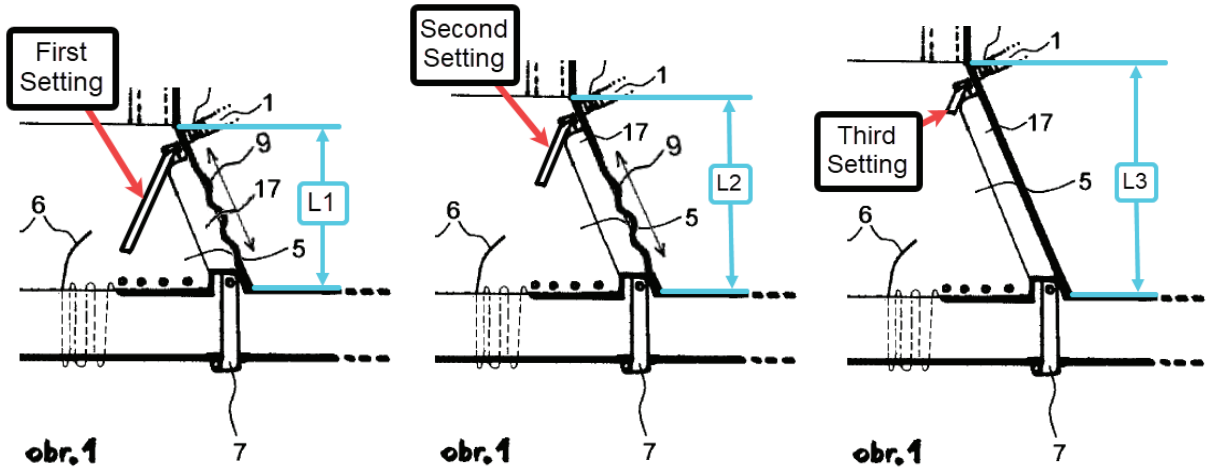
Fig. 6

The `531 patent discloses "eyelets 7 [that] are attached to the sides of back support 5 and loops 17 through which the fastening laces 4 pass are placed along the length of this back support 5; the fastening laces are at one end also connected with the eyelets 7 and their other end is placed in the fastening clips 15."

1k – at least one thigh support adjuster coupled to the first thigh support and the second thigh support, Applies either the First Construction or the Third Construction for the term thigh support adjuster.	**Yes.** The `531, similar to the thigh support adjuster in the `055 patent, does not disclose a thigh support adjuster coupled to both the first thigh support and the second thigh support. However, the `531 does disclose a thigh support adjuster (loops 17 and fastening laces 4, fastening clip 15) coupled to the first thigh support and a second thigh support adjuster coupled to the second thigh support. Lundh, on the other hand, does discloses at least one thigh support adjuster coupled to the first thigh support and the second thigh support. Specifically, Lundh discloses a child carrier having a bottom portion 109 providing a drooped seat (i.e., "bucket seat") for a baby, the bottom portion 109 having thigh support areas (e.g., lateral side portions or edges of bottom portion 109; **"thigh supports"**) that wrap under and support the baby's thighs when the baby is secured in the carrier.

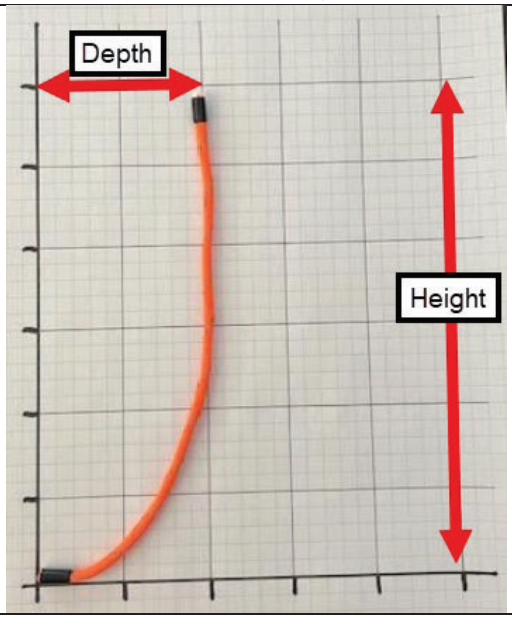
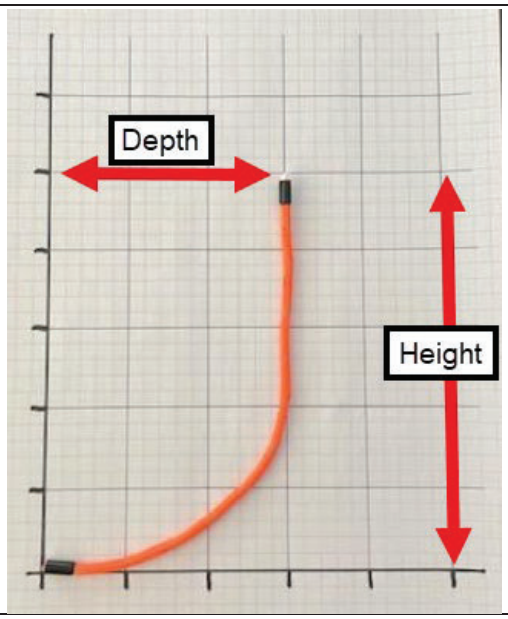
	In Lundh, part 116 of the bottom portion 109 "is detachably attached to the stomach portion 118 by a hook-and-eye-connection" (i.e., "**at least one thigh support adjuster"**) to adjust the distance D between the bottom portion 109 and interface A, B, such as to move the thigh supports up and down, thereby "[providing] for adaption of the carrier 100 to suit both smaller children, using the higher position, as well as larger children, using the lower seat position." See paragraphs [0041] – [0042]. Thus, it would have been obvious design choice, to replace one known element with another, for example replacing the lace and fastening clip with the hook-and-eye-connection to accommodate changes in child size, and to increase the comfort of the child.
1m – wherein the at least one thigh support adjuster is configured to be selectively positioned to one of the first setting, the second setting, or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages,	**Yes.** As shown above, the `531 discloses at least one thigh support adjuster configured to be selectively positioned to one of the first setting, the second setting or the third setting to thereby adjust a length of the body to accommodate various sizes of the child as the child ages.  The `531 discloses: "By pulling the fastening lace 4, clip 15 pulls the back rest 5 at the loop 17; thus, the height of the back rest is decreased by compression 9." While the invention of the `531 patent has a continuously adjustable thigh support adjuster, it can be positioned in a first setting, a second setting and a third setting. The third setting has the backrest at its maximum length, the second setting has the backrest compressed and the first setting has the backrest compressed further still. To the extent that first, second and third settings are not explicitly disclosed, they would have been obvious to a POSITA. Both discrete and continuously variable adjustments were known as shown by the discrete adjustments for the neck support and the thigh width support. Further, both discrete and continuous adjustments were commonly known in the art as discussed in the body of the report.

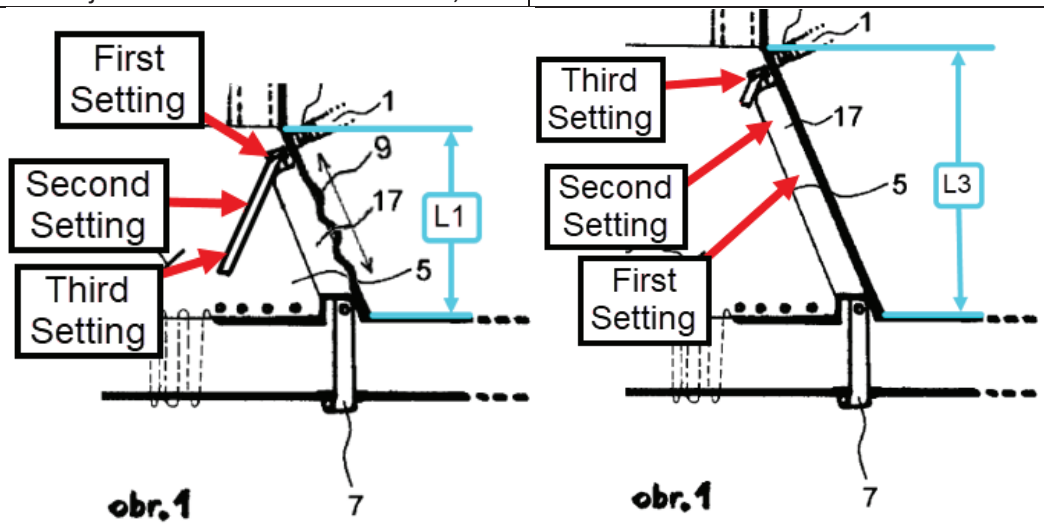
1n – wherein the length is defined from a bottom of the bucket seat to a top of the body.	**Yes.** As shown above, the length of the `531 invention is from the bottom of the bucket seat to the top of the body. As the lace 4 is drawn through clip 15, it pulls the waistbelt 8 towards the top of the main body, thus shortening the distance between the bottom of the bucket seat 5 and the top of the body.

Anticipation and/or obviousness of Claim 2 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
2pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
 Fig 1 is modified above (left and center, right is original) to illustrate "By pulling the fastening lace 4, clip 15 pulls the back rest 5 at the loop 17; thus, the height of the back rest is decreased by compression."[6] As the lace 4 is drawn through clip 15, it pulls the waistbelt 8 towards the top of the main body [toward the neck support 3], thus shortening the distance between the bottom of the bucket seat 5 and the top of the body.	
2a – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length,	**Yes.** As shown above, the `531 discloses a thigh support adjuster with a first setting, which adjusts the length of the body to a first length.
2b – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length,	**Yes.** As discussed above, the `531 discloses a second setting for the thigh support adjuster which adjusts the length of the body to a second length L2 shown above. As the free end of lace 4 of the thigh support adjuster is moved toward fastening clip 15, the depth of the bucket seat and the overall length of the body is increased.

[6] The `531 Patent pg 3 para 2

2c – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** As discussed above, the `531 discloses a third setting for the thigh support adjuster which adjusts the length of the body to a third length L3 shown above. As the free end of lace 4 of the thigh support adjuster is moved toward fastening clip 15, compression 9 is decreased and the depth of the bucket seat and the overall length of the body is increased.

Anticipation and/or obviousness of Claim 3 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
3 pre – The child carrier of claim 1,	**Yes.** See claim 1 above.
	
3a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** As shown above in claim 2, the `531's thigh support adjusters adjust the depth of the bucket seat for the child. As the lace 4 is tightened, shortening the distance between the backrest and the waist strap, the bucket seat depth increases. As shown above, with the material for the back rest 5 remaining constant, decreasing the height with the thigh support adjuster, increases the depth of the child carrier.

Anticipation and/or obviousness of Claim 4 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
4 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
	
4a – wherein the first setting is at least partially vertically displaced from the second setting,	**Yes.** As shown above, the `531 discloses a first setting at least partially vertically displaced from the second setting. A POSITA would understand that the second setting is in between the first and third settings as is at least partially vertically displaced from the first setting.
4b – the second setting is at least partially vertically displaced from the third setting,	**Yes.** As shown above, the `531 discloses a second setting at least partially vertically displaced from the third setting.
4c – and the third setting is at least partially vertically displaced from the first setting,	**Yes.** As shown above, the `531 discloses a third setting at least partially vertically displaced from the first setting.
4d – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** As shown above, the `531 discloses a second setting of the carrier in between the first and third settings.

Anticipation and/or obviousness of Claim 5 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
5 pre – The adjustable child carrier of claim 2,	**Yes.** See claim 2 above.
5a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode,	**Yes.** The `531 discloses a child carrier wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode. While describing "[t]he current state of technology" and highlighting the deficiencies of

	existing designs, the `531 states: "At present, a range of fabric child carriers is available from birth to approximately three years of age … To enable the carrying of the smallest babies up to three months, inserts to decrease the size are inserted into these carriers…"[7] It is at least implied that these are the challenges that the `531 seeks to overcome with its invention, a child carrier designed carry infants "…from birth to approximately three years of age…," and a person skilled in the art would understand that the first setting illustrated in the above figures would correspond to an infant mode.
5b – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** As shown above, the `531 discloses that the carrier is able to be used for an infant. It would be well known to a POSITA (for example, as described in "What is the length for a baby") that a child in the height range of 20-24 inches would be approximately 0-3 months of age, an infant.

Age	Male baby	Female baby
Birth	19.69 in (50 cm)	19.29 in (49 cm)
1 month	21.65 in (55 cm)	21.26 in (54 cm)
2 months	23.03 in (58.5 cm)	22.44 in (57 cm)
3 months	24.21 in (61.5 cm)	23.62 in (60 cm)

[8]

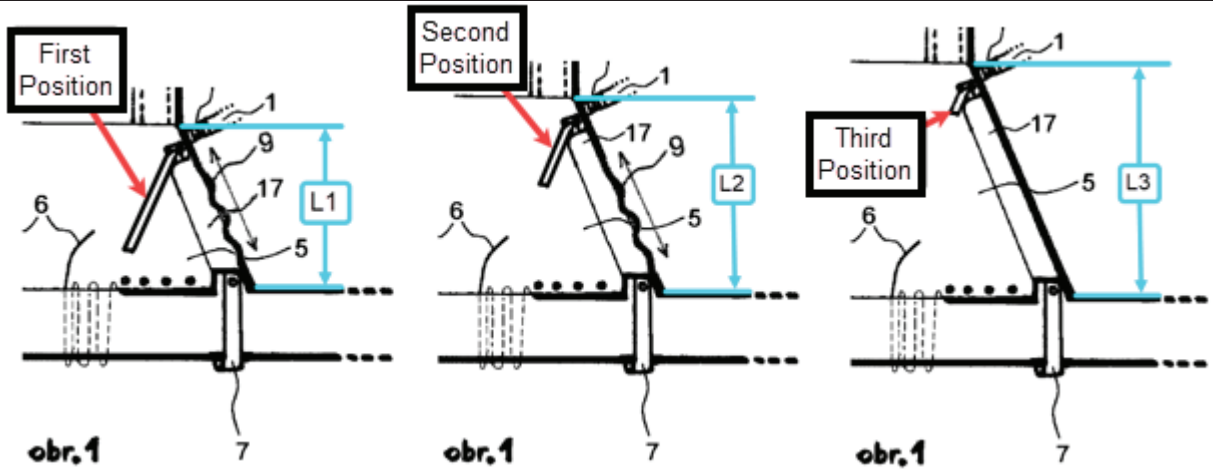
Anticipation and/or obviousness of Independent Claim 6 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
6 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** As shown above in claim 1 pre, the `531 discloses an adjustable child carrier for supporting a child by a user.
6a – a body configured to support the child between the body and a torso of the user,	**Yes.** See claim 1a above. Additionally, the `531 teaches that a substantial portion of the body of the carrier is back support 5, disclosing that at least some of the body of the carrier is intended to support the back of the child. It would be clear to a POSITA that the common way to safely

[7] The `531 Patent pg 1 para 2
[8] "What is the length for a baby?" Medical News Today - https://www.medicalnewstoday.com/articles/324728 (Ex. 1010)

	support and retain the child in the carrier is to place the child in between the body of the child carrier and the torso of the user. Further, the `531 states: "The child carrier is made up of the fixing element, which includes the hip belt 8…"[9] The hip belt is disclosed in Fig 1 to be located at the bottom of the carrier. The portion of the user's body immediately above the hips is the torso. Thus, when placing the child in the carrier, the user would be placing and carrying the child in between the body of the carrier and the torso of the user.
6b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See claim 1b above.
6c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See claim 1c above.
6d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See claim 1d above.
6e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See claim 1e above.
6f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See claim 1f above.
6g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See claim 1g above.
6h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** See claim 1h above.
6i – the body forming a first thigh support and a second thigh support;	**Yes.** See claim 1i above.
6j – at least one thigh support adjuster coupled to the first thigh support and the second thigh support; and	**Yes.** See claim 1k above.
6k – a first position, a second position, and a third position defined by the adjustable child carrier,	**Yes.** See claim 1j above. The first, second and third positions are identified by the first, second and third settings, to which they respectively correspond.
6l – wherein the first position corresponds to a first setting, the second position corresponds to a	**Yes.** See claim 1m above. The first, second and third positions are identified by the first, second

[9] `531Patent pg 2 para 8

second setting, and the third position corresponds to a third setting,	and third settings, to which they respectively correspond.
6m – wherein adjustment of the at least one thigh support adjuster among the first position, the second position, and the third position adjusts a length of the body to configure the adjustable child carrier to one of the first setting, the second setting, or the third setting,	**Yes.** See claim 1m above. The first, second and third positions are identified by the first, second and third settings, to which they respectively correspond.
6n – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See claim 1n above.

Anticipation and/or obviousness of Claim 7 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
7 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
 Fig 1 is modified above (left and center, right is original) to illustrate "By pulling the fastening lace 4, clip 15 pulls the back rest 5 at the loop 17; thus, the height of the back rest is decreased by compression."[10] As the lace 4 is drawn through clip 15, it pulls the waistbelt 8 towards the top of the main body [toward the neck support 3], thus shortening the distance between the bottom of the bucket seat 5 and the top of the body.	
7a – wherein adjustment of the at least one thigh support adjuster from the first position to the second position adjusts the length of the body from a first length to a second length,	**Yes.** As shown above, adjusting the thigh support adjuster from the first position to the second position adjusts the length of the body from L1 to L2.
7b – the second length being greater than the first length,	**Yes.** As shown above, the second length (L2) is greater than the first length (L1).
7c – wherein adjustment of the at least one thigh support adjuster from the second position to the	**Yes.** As shown above, adjusting the thigh support adjuster from the second position to the third position adjusts the length of the body

[10] The `531 Patent pg 3 para 2

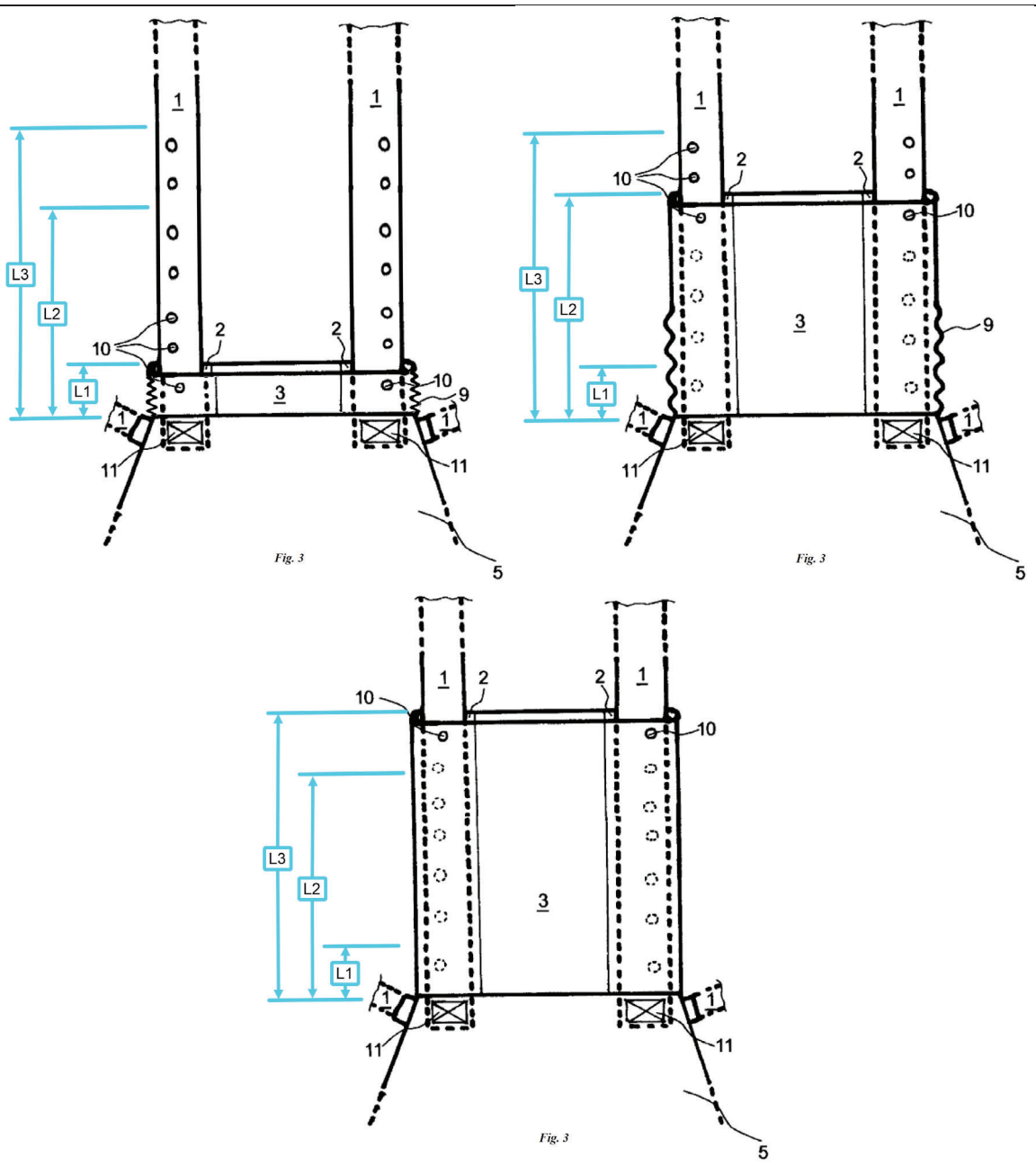
third position adjusts the length of the body from the second length to a third length,	from the second length (L2) to the third length (L3).
7d – the third length being greater than the first length and the second length.	**Yes.** As shown above the third length (L3) is greater than the second length (L2).

Anticipation and/or obviousness of Claim 8 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
8 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
8a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 3 above.

Anticipation and/or obviousness of Claim 9 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
9 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
9a – wherein the first position is at least partially vertically displaced from the second position,	**Yes.** See claim 4 above. The first and second positions are identified by the first and second settings.
9b – the second position is at least partially vertically displaced from the third position,	**Yes.** See claim 4 above. The second position and third position are identified by the second and third settings
9c – and the third position is at least partially vertically displaced from the first position,	**Yes.** See claim 4 above. The third position and first positions are identified by the third and first settings.
9d – wherein the adjustable child carrier defines the second position between the first position and the third position.	**Yes.** See claim 4 above. The first, second and third positions are identified by the first, second and third settings respectively.

Anticipation and/or obviousness of Claim 10 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
10 pre – The adjustable child carrier of claim 7,	**Yes.** See claim 7 above.
10a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode,	**Yes.** See claim 5 above.
10b – wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

Anticipation and/or obviousness of Independent Claim 11 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art and if necessary, further in view of the US patent Application No. 2018/0199730 to Lundh	
Claim Element	**Does the Prior Art have the Element?**
11 pre – An adjustable child carrier for supporting a child by a user, the adjustable child carrier comprising:	**Yes.** See claim 1 above.
11a – a body configured to support the child,	**Yes.** See claim 1a above.
11b – wherein the body forms a bucket seat configured to support legs of the child;	**Yes.** See claim 1b above.
11c – a neck support comprising a first neck support attachment and a second neck support attachment;	**Yes.** See claim 1c above.
11d – a first shoulder strap coupled to the body and configured to extend over a first shoulder of the user;	**Yes.** See claim 1d above.
11e – a second shoulder strap coupled to the body and configured to extend over a second shoulder of the user;	**Yes.** See claim 1e above.
11f – a first attachment disposed on the first shoulder strap and configured to receive the first neck support attachment;	**Yes.** See claim 1f above.
11g – a second attachment disposed on the second shoulder strap and configured to receive the second neck support attachment,	**Yes.** See claim 1g above.
11h – wherein the neck support is configured in an upward neck supporting position when the first neck support attachment is coupled to the first attachment and the second neck support attachment is coupled to the second attachment;	**Yes.** See claim 1h above.



Modified Fig 3's showing the head rest throughout its range of adjustment

11i – wherein folding the neck support down and away from the user configures the neck support in an outside folded down position, the outside folded down position reducing a length of the body in relation to the upward neck supporting position;	**Yes.** Folding neck supports and particularly a neck support in an outside folded down position are common in the prior art as described in the body of the report. The `531 states: "[T]he head rest [3] can be moved along the shoulder straps and be fixed in the required position with the safety components [10]. The lower part of the head rest is compressed, and this compression [9] ensures

	the relevant height of the back support with the head rest."[11] "The lowering of the height of the back support 5 can also be performed in the part of the head rest 3, where compression 9 also occurs."[12] A POSITA would understand that the head rest set to its most compressed state would serve the same function as folding the neck support of `055. Additionally, a POSITA would readily understand that it is nothing more than a design choice as to whether a neck support folds, as in the `055 (and many other prior art references as described in the body of the report), or a head rest compresses, as in the `531. Both accomplish the same function of reducing the length of the body and allowing the head to be supported when the infant is at different lengths, or to allow the child to see outside of the carrier if positioned face outward, and could be implemented with a high expectation of success.
11j – the body forming a first thigh support and a second thigh support;	**Yes.** See claim 1i above.
11k – wherein the body, the first thigh support, and the second thigh support in combination form a seat for the child;	**Yes.** See claim 1b, 1i above.
11l – a first setting, a second setting, and a third setting defined by the adjustable child carrier; and	**Yes.** See claim 1j above.
11m – at least one thigh support adjuster coupled to the first thigh support and the second thigh support,	**Yes.** See claim 1k above.
11n – wherein selective positioning of the at least one thigh support adjuster at the first setting, the second setting, or the third setting adjusts the length of the body to accommodate various sizes of the child as the child ages,	**Yes.** See claim 1m above.
11o – the length defined from a bottom of the bucket seat to a top of the body.	**Yes.** See claim 1n above.

Anticipation and/or obviousness of Claim 12 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art and if necessary, further in view of the US patent Application No. 2018/0199730 to Lundh	
Claim Element	**Does the Prior Art have the Element?**

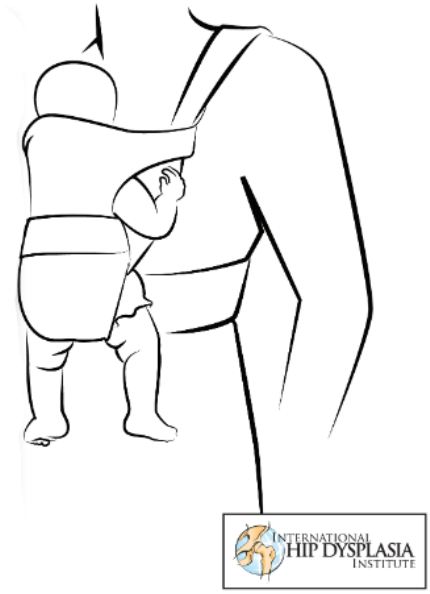
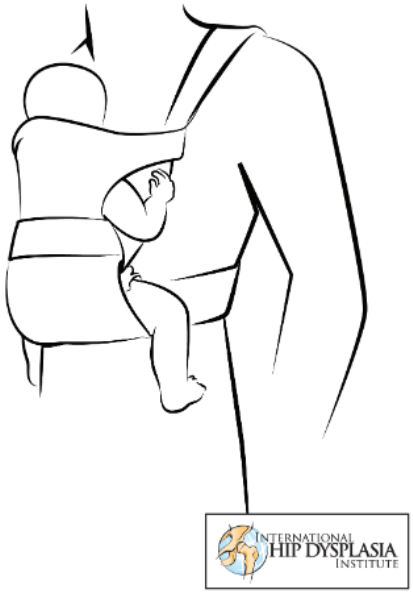
[11] The `531 Patent pg 2 para 2
[12] The `531 Patent pg 3 para 2

12 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
12a – wherein adjustment of the at least one thigh support adjuster adjusts a depth of the bucket seat for the child.	**Yes.** See claim 3 above.

Anticipation and/or obviousness of Claim 13 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art and if necessary, further in view of the US patent Application No. 2018/0199730 to Lundh	
Claim Element	**Does the Prior Art have the Element?**
13 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
13a – wherein the first setting is at least partially vertically displaced from the second setting,	**Yes.** See claim 4a above.
13b – the second setting is at least partially vertically displaced from the third setting,	**Yes.** See claim 4b above.
13c – and the third setting is at least partially vertically displaced from the first setting,	**Yes.** See claim 4c above.
13d – wherein the adjustable child carrier defines the second setting between the first setting and the third setting.	**Yes.** See claim 4d above.

Anticipation and/or obviousness of Claim 14 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art and if necessary, further in view of the US patent Application No. 2018/0199730 to Lundh	
Claim Element	**Does the Prior Art have the Element?**
14 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
14a – wherein selectively positioning the at least one thigh support adjuster at the first setting adjusts the length of the body to a first length,	**Yes.** See claim 2a above.
14b – wherein selectively positioning the at least one thigh support adjuster at the second setting adjusts the length of the body to a second length greater than the first length,	**Yes.** See claim 2b above.
14c – wherein selectively positioning the at least one thigh support adjuster at the third setting adjusts the length of the body to a third length greater than the second length.	**Yes.** See claim 2c above.

Anticipation and/or obviousness of Claim 15 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art and if necessary, further in view of the US patent Application No. 2018/0199730 to Lundh	
Claim Element	**Does the Prior Art have the Element?**
15 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.

Not Recommended:  	**Better:** 
15a – wherein the seat is configured to support the child in a spread squat position.	**Yes.** The `531 discloses a child carrier wherein the seat is configured to support the child in a spread squat position. While describing the current state of the art in the section titled "The current state of technology", the `531 states: "Child care specialists emphasize correct positioning of small children when carried in carriers. They emphasize the need to support the entire length of the back and head and sufficient support of the legs, which should be bent and the fabric should reach from one knee to the other."[13] A POSITA would readily understand that the `531 is describing the well-known ergonomic position known as 'spread squat', or 'frog', position with "…sufficient support of the legs, which should be bent..." Further, it was well known to a POSITA to support a child in a spread squat position to promote natural hip development. As early as 2014, the Internation Hip Dysplasia Institute taught that "The healthiest position for the hips is for the hips to fall or spread (naturally) apart to the side, with the thighs supported and the hips and knees bent. This position has been called the jockey

[13] The `531 Patent pg 1 para 2

	position, straddle position, frog position, spread-squat position or human position."[14]

Anticipation and/or obviousness of Claim 19 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
19 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
19a – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

Anticipation and/or obviousness of Claim 20 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
20 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
20a – wherein the bucket seat is configured to support the child in a spread squat position.	**Yes.** See claim 15 above.

Anticipation and/or obviousness of Claim 21 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
21 pre – The adjustable child carrier of claim 5,	**Yes.** See claim 5 above.

[14] https://web.archive.org/web/20140208144252/http:/hipdysplasia.org/developmental-dysplasia-of-the-hip/prevention/baby-carriers-seats-and-other-equipment/ (Ex. 1012)

Age	Male baby	Female baby
Birth	19.69 in (50 cm)	19.29 in (49 cm)
1 month	21.65 in (55 cm)	21.26 in (54 cm)
2 months	23.03 in (58.5 cm)	22.44 in (57 cm)
3 months	24.21 in (61.5 cm)	23.62 in (60 cm)
4 months	25.20 in (64 cm)	24.41 in (62 cm)
5 months	25.98 in (66 cm)	25.20 in (64 cm)
6 months	26.77 in (68 cm)	25.48 in (66 cm)
7 months	27.17 in (69 cm)	26.38 in (67 cm)
8 months	27.95 in (71 cm)	27.17 in (69 cm)
9 months	28.35 in (72 cm)	27.56 in (70 cm)
10 months	28.74 in (73 cm)	28.15 in (71.5 cm)
11 months	29.33 in (74.5 cm)	28.74 in (73 cm)
12 months	29.92 in (76 cm)	29.13 in (74 cm)

[15]

21a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** The `531 discloses that carriers for children from birth to about 3 years of age are available and known, however they do not take into account the child's growth or consider it only in a limited manner. The aim of the invention is to execute a child carrier that would allow problem-free regulation of the carrier size, thus developing a carrier that can be regulated based on the child's growth. A POSITA would have understood a toddler to be a child that is just learning to walk, typically approximately starting at or around the 1 year of age mark. As reported in the Medical News Today, shown above, children reach a height of 28 inches around 9-10 months. This is with the birth to three years of age range specified by the `531 patent.

Anticipation and/or obviousness of Claim of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**

[15] *What is the average length for a baby?*, MedicalNewsToday, updated March 31, 2023 (last viewed August 5, 2024) https://www.medicalnewstoday.com/articles/324728#average-lengths (Ex. 1010)

22 pre – The adjustable child carrier of claim 10,	**Yes.** See claim 10 above.
22a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 23 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art and if necessary, further in view of the US patent Application No. 2018/0199730 to Lundh	
Claim Element	**Does the Prior Art have the Element?**
23 pre – The adjustable child carrier of claim 14,	**Yes.** See claim 14 above.
23a – wherein adjusting the length of the body to the first length configures the adjustable child carrier in an infant mode, wherein, in the infant mode, the adjustable child carrier is configured to carry the child when the child has a height within a range of 20-24 inches.	**Yes.** See claim 5 above.

Anticipation and/or obviousness of Claim 24 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art and if necessary, further in view of the US patent Application No. 2018/0199730 to Lundh	
Claim Element	**Does the Prior Art have the Element?**
24 pre – The adjustable child carrier of claim 23,	**Yes.** See claim 23 above.
24a – wherein adjusting the length of the body to the third length configures the adjustable child carrier in a toddler mode, wherein, in the toddler mode, the adjustable child carrier is configured to carry the child when the child has a height of at least 28 inches.	**Yes.** See claim 21 above.

Anticipation and/or obviousness of Claim 28 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
28 pre – The adjustable child carrier of claim 1,	**Yes.** See claim 1 above.
28a – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** As shown above in claims 1m and 4, the first, second and third settings if the invention in the `531 are visible to the user for the selective positioning of the thigh support adjusters based on the length of the lace 4 that is extended from the clip 15. Alternatively, a POSITA would readily

	understand the advantage of marking fastening lace 4 with a visual scale, or graduation marks to the extent necessary, so that the user is able to identify a known configuration or adjust between three or more known configurations of the child carrier.

Anticipation and/or obviousness of Claim 29 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art	
Claim Element	**Does the Prior Art have the Element?**
29 pre – The adjustable child carrier of claim 6,	**Yes.** See claim 6 above.
29a – wherein each of the first position, the second position, and the third position is visible to the user for the adjustment of the at least one thigh support adjuster.	**Yes.** See claim 28 above.

Anticipation and/or obviousness of Claim 30 of US Pat No. 11,786,055 over Czech Republic Patent No. CZ2010531A in view of Ordinary Skill in the Art and if necessary, further in view of the US patent Application No. 2018/0199730 to Lundh	
Claim Element	**Does the Prior Art have the Element?**
30 pre – The adjustable child carrier of claim 11,	**Yes.** See claim 11 above.
30a – wherein each of the first setting, the second setting, and the third setting is visible to the user for the selective positioning of the at least one thigh support adjuster.	**Yes.** See claim 28 above.