

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BABY GENERATION, INC., d/b/a MOCKINGBIRD;
EVENFLO COMPANY, INC.; and
MONAHAN PRODUCTS, LLC, d/b/a UPPABABY,
Petitioner,

v.

BABY JOGGER, LLC
Patent Owner.

U.S. Patent No. 11,192,568

Case No.: IPR2025-01100

**PETITION FOR *INTER PARTES* REVIEW
UNDER 35 U.S.C. §311 *ET SEQ.* AND 37 C.F.R. § 42.100 *ET SEQ.*
(U.S. PATENT NO. 11,192,568)**

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g. [1.8]/[1.9] - <i>a [first/second] seat attachment adapter coupled to the [first/second] front wheel support frame at a [second/third] vertical position of the stroller frame that is below the first vertical position;</i>	39
h. [1.10] - <i>wherein a second seat is removably coupled to the first seat attachment adapter and the second seat attachment adapter to position the second seat at a fourth vertical position that is below the first vertical position and wherein the</i>	

- second vertical position and the third vertical position are at a same vertical height. 41*
2. *Claim 2 - The stroller of claim 1, further comprising: a first seat attachment housing disposed adjacent the first front wheel support frame at the second vertical position; a second seat attachment housing disposed adjacent the second front wheel support frame at the third vertical position; wherein the first seat attachment adapter is coupled to the first seat attachment housing and the second seat attachment adapter is coupled to the second seat attachment housing. 43*
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8. *Claim 8 - The stroller of claim 1, further comprising: a third seat attachment adapter coupled to the stroller frame at the first vertical position; and a fourth seat attachment adapter coupled to the stroller frame at the first vertical position; wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter. 49*

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Manual of Patent Examining Procedure , §2159.04 (9th ed. Rev. 10.2019, June 2020)	xii, 23
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Rules

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List of Exhibits

Exhibit	Description
EX1001	Declaration of Douglas Prairie
EX1002	U.S. Provisional Patent Application No. 61/119,920
EX1003	U.S. Publication No. 2010/0140902
EX1004	U.S. Pat. No. 8,955,869
EX1005	U.S. Pat. No. 9,403,550
EX1006	U.S. Provisional Patent Application No. 62/311,224
EX1007	U.S. Patent No. 9,944,305
EX1008	U.S. Patent No. 10,730,543
EX1009	U.S. Patent No. 11,192,568
EX1010	U.S. Patent No. 11,731,682
EX1011	U.S. Patent No. 11,577,771
EX1012	U.S. Patent No. 11,505,231
EX1013	U.S. Patent No. 11,878,729
EX1014	Non-certified File History of U.S. Patent Pub. No. 2010/0140902
EX1015	Non-certified File History of U.S. Patent No. 8,955,869
EX1016	Non-certified File History of U.S. Patent No. 9,403,550
EX1017	Non-certified File History of U.S. Patent No. 9,944,305
EX1018	Non-certified File History of U.S. Patent 10,730,543

EX1019	Certified File History of U.S. Patent No. 11,192,568
EX1020	Certified File History of U.S. Patent No. 11,731,682
EX1021	Certified File History of U.S. Patent No. 11,577,771
EX1022	Non-certified File History of U.S. Patent No. 11,505,231
EX1023	Non-certified File History of U.S. Patent No. 11,878,729
EX1024	Certified File History of U.S. Patent Application No. 18/448,417
EX1025	Sewell, Samuel J. “The History of Children’s and Invalids’ Carriages.” <i>Journal of the Royal Society of Arts</i> , vol. 71, no. 3694, 1923, pp. 716–728
EX1026	U.S. Patent No. 405,600
EX1027	U.S. Patent No. 510,355
EX1028	<i>Intentionally left blank</i>
EX1029	U.S. Patent No. 4,191,397
EX1030	U.S. Patent No. 6,513,827
EX1031	Declaration of Hollie Schultz
EX1032	Declaration of Greg Allen
EX1033	U.S. Patent No. 7,641,216
EX1034	U.S. Patent No. 4,398,748
EX1035	U.S. Patent Pub. No. 2008/0238042
EX1036	<i>Intentionally left blank</i>
EX1037	U.S. Patent No. 6,086,087
EX1038	Kolcraft Contours Options Tandem Stroller Instruction Sheet, EXA to Affidavit of Christopher Butler

EX1039	French Patent 2,615,155 and Non-certified English Translation
EX1040	U.S. Patent No. 6,209,892
EX1041	EP 0980810 and Certified Translation
EX1042	U.S. Design Patent No. D514,036
EX1043	Evenflo Take Me Too Manual – Double Stroller/Double Travel System (Oct. 2004)
EX1044	U.S. Patent No. 6,045,145
EX1045	U.S. Patent No. 5,794,951
EX1046	Comparison of First Non-Provisional Specification and '305 CIP Specification
EX1047	U.S. Patent No. 8,882,134
EX1048	U.S. Design Patent No. D593,459
EX1049	U.S. Patent Pub. No. 2006/0071451
EX1050	U.S. Patent No. 6,702,316
EX1051	<i>Intentionally left blank</i>
EX1052	Non-certified File History of U.S. Pat. App. No. 29/324,044
EX1053	CN2778636Y and Certified English Translation
EX1054	U.S. Patent Pub. No. 2003/0075902
EX1055	Baby Jogger, LLC's Opening Claim Construction Brief in Civil Action No. 1:24-cv-11582-ADB
EX1056	Baby Jogger, LLC's Responsive Claim Construction Brief in Civil Action No. 1:24-cv-11582-ADB
EX1057	EXC to Baby Jogger, LLC's Infringement Contentions in Civil Action No. 1:24-cv-11582-ADB

EX1058	Merriam-Webster, Parallel, https://www.merriam-webster.com/dictionary/parallel (last visited Feb. 21, 2025)
EX1059	<i>McGraw-Hill Dictionary of Scientific and Technical Terms</i> (6th ed. 2003), Definition of “parallel”
EX1060	<i>Barron’s Dictionary of Mathematics Terms</i> (3d ed. 2009), Definition of “parallel”

Mandatory Notices under 37 C.F.R. § 42.8

Real Party-In-Interest - 37 C.F.R. § 42.8(b)(1)

Baby Generation, Inc. d/b/a Mockingbird; Evenflo Company, Inc.; and Monahan Products, LLC d/b/a UPPAbaby (“Petitioner”) are the real parties-in-interest.

Related Matters - 37 C.F.R. § 42.8(b)(2)

Petitioner identifies the following related district court matters:

1. *Baby Jogger, LLC v. Evenflo Company, Inc.* 1-24-cv-00723 (DDE),
2. *Baby Jogger, LLC v. Baby Generation, Inc. d/b/a Mockingbird* 1-24-cv-00725 (DDE);
3. *Baby Jogger, LLC v. Monahan Products LLC d/b/a UPPAbaby* 1-24-cv-11582 (DMA).

In each of the above identified matters, Baby Jogger LLC (“Patent Owner” or “PO”) has asserted U.S.P.N. 11,192,568 (“the ’568 Patent”) and the following related patents: U.S.P.N. 11,505,231; 11,878,729.

In the *Evenflo* litigation alone, Patent Owner has additionally asserted the following related patents: U.S.P.N. 11,577,771; 11,731,682. In the *Baby Generation/Monahan Products* litigations, Patent Owner has additionally asserted the following additional related patents: U.S.P.N. 8,955,869; 9,403,550.

Additional IPR petitions pertaining to patents related to the ’568 Patent will

be filed by one or more of the above identified Parties. Petitioner will supplement their mandatory notices pursuant to 37 §42.8(a)(3) once filed.

Petitioner identifies the following pending U.S. Patent Application:

- 18/534,146, titled “Removable Seat Attachments for a Stroller,” and filed 2023-12-08.

Lead and Back-Up Counsel - 37 C.F.R. § 42.8(b)(3)

Petitioner identifies the following lead and back-up counsel:

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Pursuant to 37 C.F.R. § 42.10(b), appropriate Powers of Attorney are filed concurrently herewith.

Service Information - 37 C.F.R. § 42.8(b)(4)

Service information for lead and back-up counsel is provided in the designations above. Petitioner consents to service by email at the following email

addresses:

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- mockingbirdlitigation@pkhip.com
- emailservice@lalaw.com

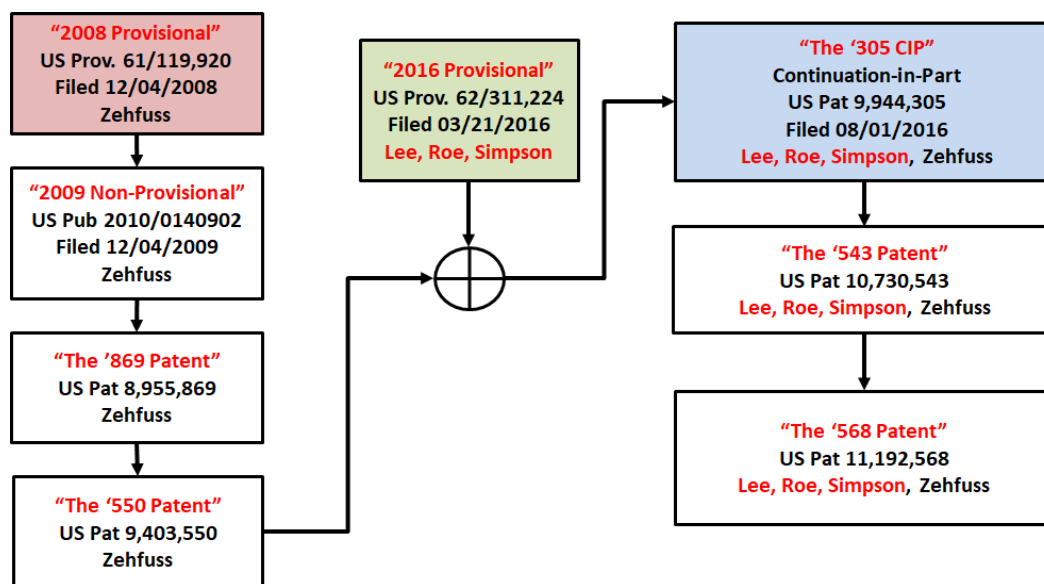
Fees - 37 C.F.R. § 42.15(a)

Filing fees associated with this Petition are being charged to Deposit Account 02-3978. The Board is authorized to charge any additional fees or credit any refunds pertaining to this Petition to Deposit Account 02-3978.

I. INTRODUCTION

Petitioner respectfully challenges claims 1-9 and 17-20 (“Challenged Claims”) of U.S. Patent No. 11,192,568 (EX1009), purportedly assigned to Baby Jogger, LLC (“PO”). Petitioner asserts the Challenged Claims are unpatentable on two independent grounds.

First, the ’568 Patent¹ claims priority to both a 2008 Provisional Application and a 2016 Provisional Application. (EX1009.)



'568 Patent Family

The 2008 Provisional lists only one inventor, Mark Zehfuss, while the 2016 Provisional lists three different inventors: Jon Lee, Megan Roe, and Noel Simpson. (EX1002, 1; EX1006, 1.) When PO filed the '305 CIP, it rewrote what is

¹ Petitioner uses the nomenclature provided in red quotes shown by the chart.

essentially a new specification bearing little resemblance to the original 2009 Non-Provisional specification. (*See* EX1046.)² The most significant revisions included new disclosure which was added from the 2016 Provisional.

Given the substantial matter added, and the fact that the '568 Patent identifies the three new inventors named from the 2016 Provisional, a dispute exists whether the '568 Patent is entitled to a priority date earlier than March 2016. As discussed below, Petitioner contends independent claims 1 and 17 (and their dependent claims) are not entitled to a priority date earlier than March 2016. Accordingly, Ground 1 relies on intervening prior art demonstrating the Challenged Claims are unpatentable.

Second, if the Board concludes the Challenged Claims are entitled to a pre-2016 priority date, Petitioner disputes patentability within Grounds 2 and 3 relying on prior art pre-dating PO's 2008 priority claim.

II. STANDING REQUIREMENTS UNDER 37 C.F.R. §42.104

A. Standing – 37 C.F.R. §42.104(a)

Petitioner certifies the '568 Patent is available for IPR and Petitioner is not

² EX1046 is a redline comparison between the '305 CIP specification (EX1007) and the 2009 Non-Provisional specification (EX1003). Red underlined material indicates disclosure added to the '305 CIP specification.

barred or estopped from requesting IPR of the Challenged Claims.

B. Challenged Claims – 37 C.F.R. §42.104(b)(1)

Petitioner requests *inter partes* review for claims 1-9 and 17-20 of the '568 Patent and requests the P.T.A.B. cancel those claims as being unpatentable.

C. Prior Art

This Petition relies on the following prior art:

Exhibit	Reference	Date	Section³
EX1047	U.S.P.N. 8,882,134 ("Rolicki")	Filed: 03/14/2013 Issued: 11/11/2014	§102 (a)(1)/(2)
EX1048	U.S.P.N. D593,459 S ("Liao")	Filed: 09/05/2008 Issued: 6/2/2009	§102 (a)(2)
EX1049	U.S. Pub. No. 2006/0071451 ("Cheng")	Pub.: 04/06/2006	§§102 (a)(1)/(2)
EX1050	U.S.P.N. 6,702,316 ("Hsia")	Issued: 03/09/2004	§§102 (a)(1)/(2)
EX1054	U.S. Pub. No. US 2003/0075902 ("Hsia '902")	Pub.: 04/24/2003	§§102 (a)(1)/(2)

Rolicki was cited but never relied upon during examination as the PO

³ The Leahy-Smith America Invents Act ("AIA") should apply. *See* §VIII.B. If the Board concludes otherwise, pre-AIA provisions apply.

indicated to the Patent Office all claims had priority back to 2008⁴. While Hsia was not cited, related U.S.P.N. 6,923,467 was cited but never relied upon during examination. Cheng and Hsia '902 were neither cited nor relied upon during examination. Liao is cited and was relied on as a secondary reference during prosecution of the '568 Patent. As explained in Sections IX.B. and X.B. the Examiner appears to have erred in not finding the Challenged Claims unpatentable in view of Liao as a primary reference.

D. Grounds of Challenge – 37 C.F.R. §42.104(b)(2)

This Petition, supported by the declaration of Douglas Prairie (EX1001), requests cancellation of the Challenged Claims pursuant to the following grounds:

Ground	Basis	Reference	Challenged Claims
1	§103	Rolicki	1–9, 17–20
2	§103	Liao and Cheng	1–9, 17–20
3	§103	Hsia and Hsia '902	1–9, 17–20

Ground 1 depends on finding that the '568 Patent is not entitled priority to its earliest effective filing date (“EFD”)—December 4, 2008. *See* §VIII.A. The prior art relied on for Grounds 2–3 pre-date the EFD and do not rely on a priority challenge. These grounds provide a reasonable likelihood that at least one

⁴ *See* § VIII.A.1

Challenged Claim is unpatentable.

III. LEVEL OF ORDINARY SKILL

The '568 Patent is directed to children's strollers. A person of ordinary skill in the art ("POSITA") would have had a bachelor's degree in a relevant field (*e.g.*, mechanical engineering or industrial design) and at least two years of product design experience and/or industry experience with juvenile products. (EX1001, ¶¶35-37.) More education can replace product design experience, and vice versa. *Id.*

IV. STATE OF THE ART

By December 2008, a POSITA understood strollers included well-known features like folding mechanisms, rotatable seats, and/or detachable seats. (EX1001, ¶¶41-61.) A POSITA also understood common stroller configurations included single-seat or double-seat designs. (EX1001, ¶¶62-91.) Numerous commercial strollers were available on the market featuring these features in both removable single-seat and double-seat configurations. (EX1001, ¶¶90-95; EX1031, ¶¶11-74; EX1032, ¶¶7-36.)



EX1038, 15



EX1032, ¶¶22-25, p34; EX1032, ¶¶26-29, pp39-40



EX1032, ¶¶14-17, p19



EX1031, ¶¶14-18

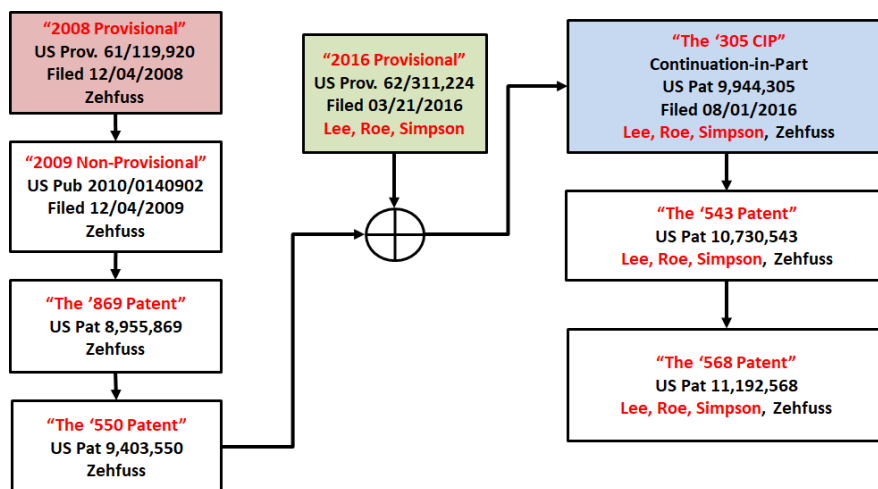


EX1031, ¶¶24-29

V. THE '568 PATENT

A. Overview

The '568 Patent claims priority to a 2008 Provisional (red). The 2008 Provisional identified only Mark Zehfuss (EX1002, 1) and disclosed two embodiments relating to a single seat stroller convertible to a double-seat stroller (EX1002, 36-38, 42-43; EX1001, ¶¶96-102.)



'568 Patent Family

The 2016 Provisional lists three new inventors—Lee, Roe, and Simpson. (EX1006, 1.) The 2016 Provisional discloses the new inventors' novel embodiments related to the usage of "seat attachment adapters" and " housings." (EX1006, 8-12, 15-16; EX1001, ¶¶118-121.) The 2016 Provisional included "claims" reciting the "seat attachment adapters" being coupled to "seat attachment housing" as new subject matter. (EX1001, ¶125.)

1. A stroller, comprising:
a stroller frame;
a plurality of wheels;
a first seat coupled to the stroller frame;
a first seat attachment housing disposed along a first portion of the stroller frame;
a second seat attachment housing disposed along a second portion of the stroller frame;
a first removable seat attachment adapter configured to be removably coupled to the first seat attachment housing; and
a second removable seat attachment adapter configured to be removably coupled to the second seat attachment housing.

EX1006, 20

On August 1, 2016, the '305 CIP (blue) application was filed. (EX1007; EX1001, ¶129.) When filed, PO essentially rewrote the specification to incorporate (1) material disclosed by the 2016 Provisional, and (2) new material not previously disclosed in either the 2008 or 2016 Provisional. (EX1001, ¶¶129-139.) A redline comparison between the specification of the 2009 Non-Provisional and '305 CIP illustrates the dramatic modifications and alterations. (EX1046; EX1001, ¶¶131-139.)

B. The '568 Patent Claims

Petitioner asserts claims 1 and 17 (as explained using Figures 8A and 13C below) are directed to the subject matter disclosed only within the 2016 Provisional. (EX1001, ¶¶188-250.)

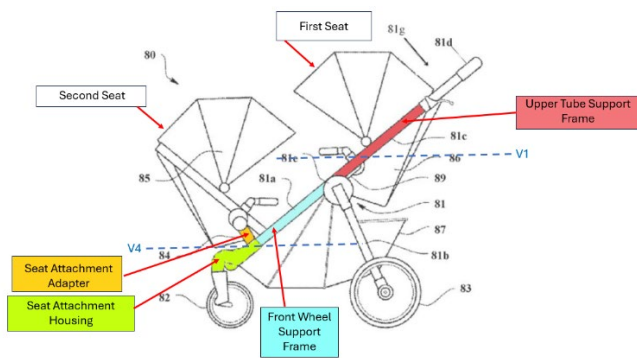


FIGURE 8A

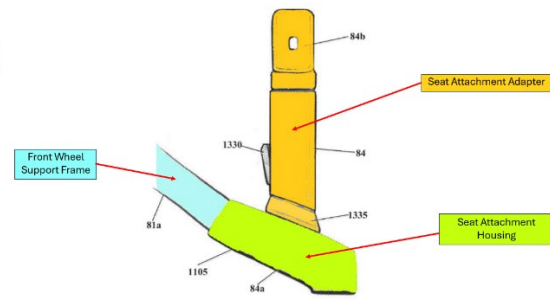


FIGURE 13C

EX1009, FIGS. 8A and 13C

Claims 1 and 17 recite a stroller having two “upper tube support frames” and two “front wheel support frames.” (EX1009, 17:24-34, 19:27-33.) Both claims require the front wheel support frames be “substantially parallel” to the “upper tube support frames” when the frame is in the unfolded configuration.⁵ *Id.*

Claim 1 also requires two “seat attachment adapters” coupled to the “front wheel support frames.” (EX1009, 17:44-50.) Claim 17 requires the “seat attachment adapters” be coupled to “seat attachment housings” that are “disposed along” the “front wheel support frames.” (EX1009, 19:38-20:15.) Dependent claim 2 likewise recites the “adapters” being coupled to “seat attachment housings.” (EX1009, 17:58-67.) Lastly, Claim 1 requires a “fourth vertical position” (where the second seat *is positioned* when coupled to the adapters) being

⁵ This limitation was added by amendment during prosecution and is not illustrated nor supported by Figure 8A. *See* §VIII.A.

below the “first vertical position” (where the first seat couples to the “upper tube support frames”). (EX1009, 17:41-43, 17:51-56.)

C. Prosecution History

The '568 Patent issued from U.S. Application No. 16/832,429 (“the '429 Application”) and lists four inventors: Lee, Roe, Simpson, and Zehfuss. (EX1009.)

As filed, the '429 Application included independent claims 1 and 17. (EX1019, 26, 29-30.) *Three* times during prosecution, the Examiner rejected independent claims 1 & 17. (EX1019, 555-567, 719-735, 853-855.) *Three* times the PO amended claims 1 and 17. (EX1019, 687-692, 842-847, 963-968.) And *three* times the PO asserted “[s]upport for the amendments can be found in the Applicant’s originally filed application at p. 13, line 18 to p.14, line 8⁶[.]” (EX1019, 694–695, 838-839, 970-971; EX1001, ¶¶150-151.) After the final amendment, the Examiner allowed claims 1 and 17 to issue. (EX1019, 981-982; EX1001¶153.)

The pages and lines identified by PO as “support” are drawn from subject matter incorporated from the 2016 Provisional. (EX1001, ¶¶146-147; *compare* EX1019, p.15, l.18 to p.16, l.8 *with* EX1006, p.9, l.30 to p.10, l.23.) The cited “support[ing]” disclosure was not included in the disclosures prior to the filing of

⁶ Emphasis added unless otherwise noted.

the '305 CIP. The redline comparison between the pre-CIP and post-CIP specifications confirm the cited “support” was added by PO in 2016. (EX1046, 17, 1.11 to 18, 1.2.)

PO's admissions during prosecution confirm the limitations “seat attachment adapters,” “seat attachment housings,” “first vertical position,” “fourth vertical position,” and “substantially parallel” are *not* supported by the 2008 Provisional and instead are supported only by the 2016 Provisional invented by Lee, Roe, and Simpson. (EX1001, ¶¶144-153.)

VI. CLAIM CONSTRUCTION

Although there are several Section 112 issues with the Challenged Claims, none preclude the Board from evaluating validity based on the grounds asserted herein. *See Intel Corp. v. Qualcomm Inc.*, 21 F.4th 801, 813 (Fed. Cir. 2021).

This Petition applies constructions that PO has implicitly or explicitly applied in litigation and, in certain instances, alternative constructions. *See* EX1055, EX1056. Petitioner reserves the right to argue different constructions in other actions. *See Western Digital Corp. v. Spex Techs., Inc.*, IPR2018-00082, Paper 11, at *11-12 (PTAB Apr. 25, 2018). Except for the term below, no formal construction currently appears necessary.

A. “substantially parallel” (claims 1 and 17)

The '568 Patent states: “As used herein, the term ‘substantially parallel’

indicates that the parallel relationship is not a strict relationship and does not exclude functionally similar variations therefrom.” (EX1009, 3:67-43; EX1001, ¶161.) The term “substantially parallel” and this definition are absent from all Priority Applications filed before 2016. This definition was instead added from the 2016 Provisional. (EX1006, 7-8.)

In district court litigation, PO argues that “substantially parallel” means “the parallel relationship is not a strict relationship” and that “‘substantially parallel’ permits some deviation from exactly parallel.” (EX1055, 24-27.) This Petition applies PO’s assertions and construes “substantially parallel” as meaning “the parallel relationship is not a strict relationship, such that some deviation from exactly parallel is permitted.” Alternative interpretations based on PO’s assertion of this term are also applied in Ground 2 below.

VII. PRIORITY AND AIA STATUS

A. The Challenged Claims are not entitled to an EFD prior to March 21, 2016

As explained in § V.A. *supra*, the ’568 Patent is a continuation application claiming priority to the ’305 CIP. (EX1009.) The ’305 CIP specification was rewritten to incorporate the disclosure of the 2016 Provisional and bears little resemblance to the originally filed 2009 Non-Provisional specification. (*see*

EX1046.)⁷ The 2016 Provisional lists a new inventive entity (Lee, Roe, Simpson) that is different from the inventive entity of the 2008 Provisional (listing only Zehfuss). No challenge of priority was made by the Examiner during prosecution of the '568 Patent because the “PTO does not make such findings as a matter of course in prosecution” unless there is “an interference or rejection which would require the PTO to make a determination of priority.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F. 3d 1299, 1305 (Fed. Cir. 2008).

Because Ground 1 introduces intervening prior art *and* the Examiner never addressed priority during prosecution, the “burden of production” shifts to PO who now “must ... show ... how the written description in the earlier application(s) support(s) the claim in order to rely on that earlier filing date.” *Google LLC v. AGIS Software Development, LLC*, IPR2018-01082, Paper 10, 19 (PTAB, Nov. 20, 2018) (citation omitted). But Petitioner doubts PO can satisfy its burden and disputes the claims of the '568 Patent are entitled to the claimed priority date of December 4, 2008 for reasons stated below.

1. Failure to Disclose

When filed, the '568 Patent identified four inventors: Lee, Roe, Simpson,

⁷ EX1046 is a redline comparison between the specification of the 2009 Non-Provisional (EX1003) and the specification of the '305 CIP (EX1007).

and Zehfuss. (EX1019, 33–34.) But Lee, Roe, and Simpson are the inventive entity to the subject matter disclosed in the 2016 Provisional—*not the 2008 Provisional*. (EX1006, 1.) Because these individuals were identified as inventors, PO necessarily understood the '568 Patent had claims supported by the 2016 Provisional with a priority date after March 16, 2013.

Despite this, PO failed to inform the Examiner in its statement under 37 C.F.R. §§1.55/1.78 that the '429 Application (*i.e.*, the pending '568 Patent) included claims with a post-March 16, 2013 effective filing date. (EX1019, 37.) As a result, the application was improperly examined under pre-AIA law, the Examiner never challenged the 2008 priority claim, nor issued a rejection based on intervening prior art. (*See e.g.*, EX1019, 78.)

2. PO confirmed claims 1 and 17 recite subject matter from the 2016 Provisional

To overcome three rejections, PO repeatedly amended claims 1 and 17. (EX1019, 687-691, 842-846, 963-968; EX1001, ¶¶147-152.) After all three amendments, PO stated: “Support for the amendments can be found in the Applicant's originally filed application at p.13, line 18 to p.14, line 8.” (EX1019, pp. 694-695, 838-839, 970-971; EX1001, 147, 151-152.) But the exact page and lines PO identifies as “support” for the amendments are *found only within the 2016 Provisional*. (EX1001, ¶¶146-147; *Compare* EX1019, p.15, l.18 to p.16, l.8 with

EX1006, p.9, l.30 to p.10, l.23.) A redline comparison between the specification of the 2009 Non-Provisional and the '305 CIP confirms PO's "support" was added in 2016. (EX1046, p.17, l.11 to p.18, l.2.) The cited "support" was not disclosed nor contemplated by Mr. Zehfuss, the sole inventor named on the 2008 Provisional. (EX1001, ¶¶144-153.)

3. Multiple limitations recited in claims 1 and 17 are not supported before 2016

Petitioner's expert further opines a POSITA would not have understood claims 1 and 17 of the '568 Patent are supported by the 2008 Provisional. (EX1001, ¶¶170-187.) Rather, a POSITA would have concluded the PO lacked possession of the recited "adapters" and " housings" limitations, as nothing prior to the '305 CIP informs a POSITA the PO had possession of this claimed subject matter. (EX1001, ¶¶190-206.) A POSITA would understand "adapters"/" housings" were added by PO to the '305 CIP based on material found only in the 2016 Provisional. (EX1001, ¶191.) A POSITA would understand "claims" included in the 2016 Provisional confirm this subject matter was not in the possession of Mr. Zehfuss—the *sole* inventor of the 2008 Provisional. (EX1001, ¶¶196-198.)

A POSITA would have concluded PO lacked possession of the recited first–fourth "vertical positioning" limitations (EX1001, ¶¶188-189.) A POSITA would have understood the disclosure regarding the vertical positioning was first

disclosed in the 2016 Provisional (EX1006, 10-11), which was then added to the disclosure of the '305 CIP (*see* EX1007, 10:39-59.)

A POSITA would further understand PO lacked possession of the recited “front wheel support frame” and “upper tube support frame” being “rotatably adjusted to be *substantially parallel*.” (EX1001, ¶¶214-243.) A POSITA would understand the definition of “substantially parallel” first appeared in the 2016 Provisional and later included into the '305 CIP. (EX1006, 7-8; EX1001, ¶¶127-126, 235.) A POSITA would not understand this definition supports the relationship being claimed by the '568 Patent and the PO was not in possession of this claimed subject matter before the filing of the '568 Patent. (EX1001, ¶¶235-244.)

4. The claimed relationship between stroller parts being “substantially parallel” is not supported

Petitioner challenges whether any Priority Application provides written description for the first/second “front wheel support frames” being “substantially parallel” to the first/second “upper tube support frames.” (EX1009, 17:27-34 and 20:1-15; 35 U.S.C. § 100 (i).) This limitation first appeared by amendment during prosecution (EX1019, 842, 846), and it does not have support in the '568 Patent nor any Priority Application.

As discussed in §V.C. *supra*, PO directed the Examiner to a portion of the

application it claimed “support[ed]” the claim amendment. (EX1019, 838-839.) The “support,” however, was from subject matter first disclosed within the 2016 Provisional. (EX1019, p.15, l.18 to p.16, l.8; *see also* EX1006, p.9, l.30 to p.10, l.23.) PO’s own admission confirms it is not entitled to a priority date prior to 2016.⁸

PO also referenced Figure 8A for support. *Id.* Petitioner disagrees this figure provides support for “substantially parallel.”

⁸ The definition of “substantially parallel” found in the ’568 Patent originated from the 2016 Provisional. (EX1007, p.7, l.31 to p.8, l.2.) But, this definition does not refer to the relationship between the “front wheel support frames” and “upper tube support frames.”

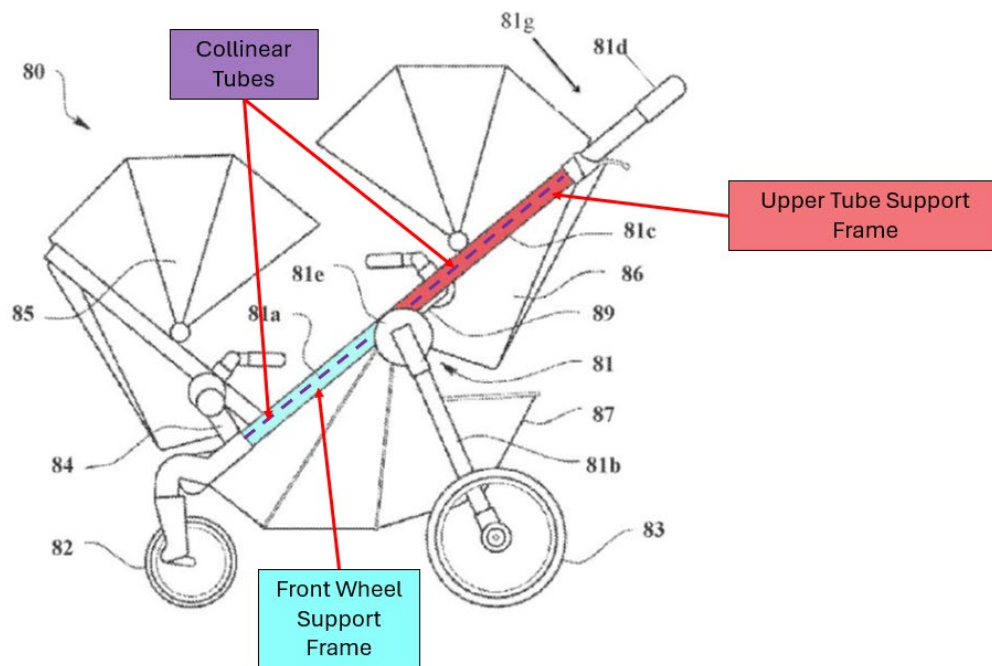


FIGURE 8A

EX1009, Fig. 8A

In Figure 8A, the “front wheel support frame” and “upper tube support frame” are not “substantially parallel.” Instead, they are colinear (when viewed from the side), which is the opposite of parallel. (EX1001, ¶¶227-229.)

In general, for things to be parallel, they must (1) maintain a constant distance apart and (2) never intersect. (EX1001, ¶¶164-168.) To illustrate, the lines and planes below are parallel because they maintain a constant distance apart and never intersect. (EX1001, ¶¶165-168.)



EX1001, ¶165, ¶167

Thus, for things to be considered “substantially parallel,” there must be at least (1) *some* degree of separation and (2) *some* lack of intersection between them. (EX1001, ¶169). By contrast, because the “front wheel support frame” and “upper tube support frame” in Figure 8A both are colinear, there is (1) *no* degree of separation and (2) *infinite* intersection at *infinite* points. (EX1001, ¶229). Because the two frame portions are the opposite of parallel, they are *not* “substantially parallel.” *Id.*

B. The ’568 Patent Is Subject to the AIA

The ’568 Patent is a “transition application” because it was filed after March 16, 2013 and claims priority to pre-AIA applications. (Manual of Patent Examining Procedure (“MPEP”), §2159.04 (9th ed. Rev. 10.2019, June 2020).) Transitional applications are subject to AIA law if it or any application to which it claims priority has, or ever had, at least one claim with an EFD on or after March 16, 2013. *Id.*, §2159.02.

As discussed §VIII.A. *supra*, the EFD of the Challenged Claims is after March 16, 2013. Additionally, the ’568 Patent lists inventors Lee, Roe, and

Simpson first added in the '305 CIP (EX1007) and the 2016 Provisional. (EX1017, 47-49; *see* EX1006, 1.; EX1009.) By adding new inventors, PO admits post-2013 matter is claimed. Therefore, the '568 Patent should be subject to AIA law. Regardless, claim 1 of the '305 CIP is directed to an “adapter receiving cavity” and a “door.” (EX1007, Claim 1.) The earliest potential support for these claim limitations is the 2016 Provisional. (*See* EX1006, 14-15.)

VIII. Prior Art Overview

A. Rolicki

Rolicki was filed on March 14, 2013, published on July 10, 2014, and issued on November 11, 2014. (EX1047, Cover.) Rolicki is prior art under §102(a)(1)-(a)(2) if the '568 Patent is not awarded the December 4, 2008 priority date.

Rolicki's stroller includes upper/lower frame members “204/206” that can be rotated between a folded and unfolded configuration. (EX1047, 5:35-6:28.) The stroller includes “seat mounts 108” for removably coupling an upper “seat 106” and lower “seat 106.” (EX1047, 3:49-64.) The “seat mounts” can be permanently or removably coupled to either “ housings 230/902” or the “stroller frame 102.” (EX1047, 3:53-58, 13:1-9.)

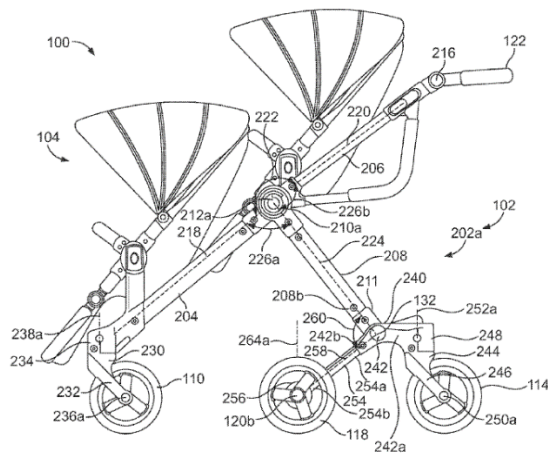


FIG. 2

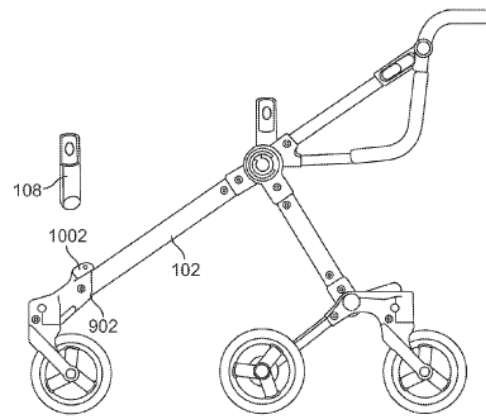


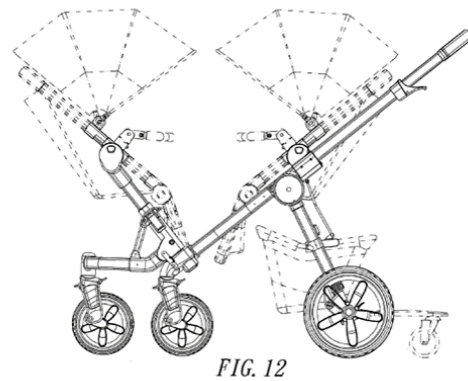
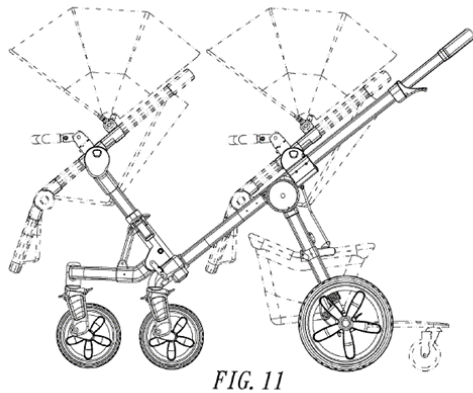
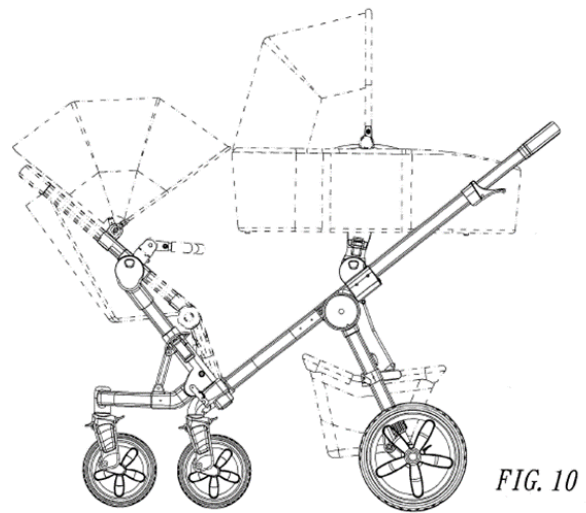
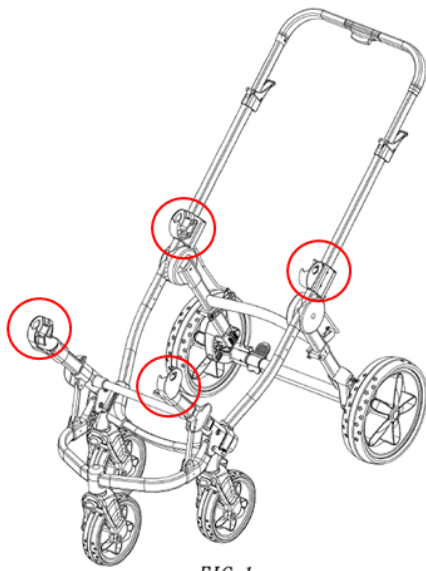
FIG. 10

EX1047, Fig. 2, Fig. 10

B. Liao

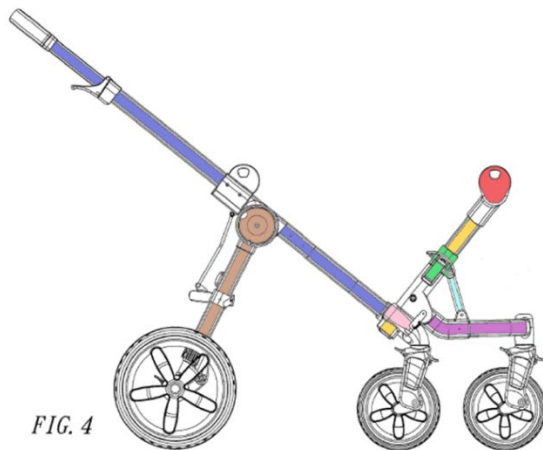
Liao was filed on September 5, 2008 and issued June 2, 2009. (EX1048, Cover.) Liao qualifies as prior art under §102(a)(2) if the claims are entitled to the December 4, 2008 priority date and §102(a)(1)-(2) if not.

Liao teaches a stroller (pushchair) that includes connectors (circled in red) for removably coupling two seats. Liao illustrates various embodiments with different style seats and varying orientations of the seats.



EX1048, Fig. 1, Figs. 10-12

While applied during prosecution of the '568 Patent, Liao was not the primary reference in any rejection. But as shown below, Liao's design illustrates similar features as those shown by the '568 Patent.



Liao Fig. 4

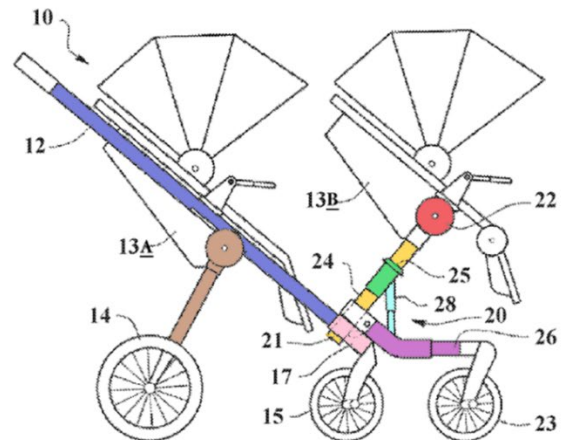
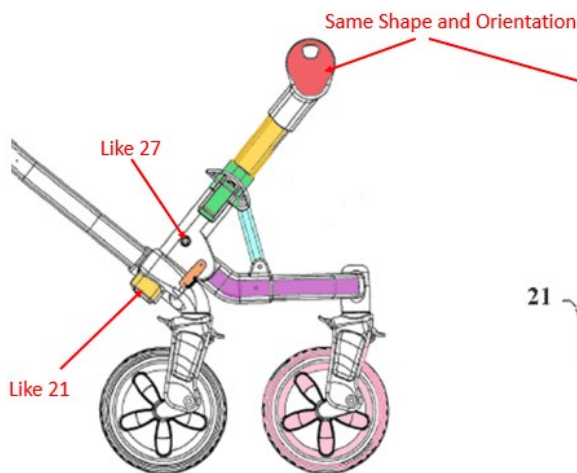


Fig. 3 of '568 Patent



Liao Fig. 4

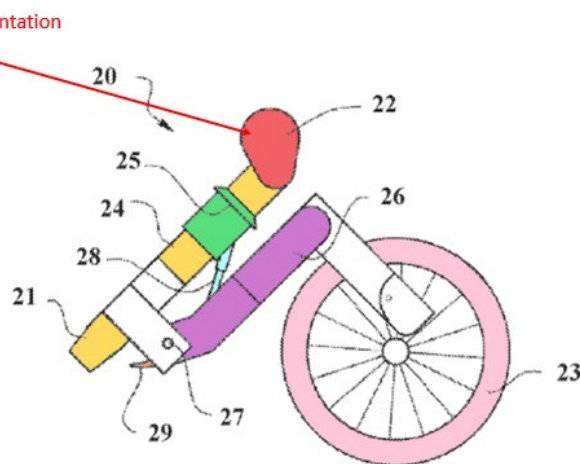


Fig. 2 of '568 Patent

While the Examiner may not have appreciated these similarities during prosecution of the '568 Patent, the Examiner did recognize its significance in a related application filed several years after the '568 Patent. Specifically, during prosecution of U.S. Application No. 18/448,417 ("the '417 Application"), the Examiner rejected claims similar in scope to those of the '568 Patent as

anticipated by Liao alone. (See EX1024, 1203.) The Examiner's July 2024 rejection in the '417 Application, and the opinion from Petitioner's expert, indicates an error occurred during prosecution of the '568 Patent in not fully considering and appreciating Liao's disclosed design.

C. Cheng

Cheng published on April 6, 2006 (EX1049, Cover) and is prior art under 102(a)(1)-(2). Cheng discloses a stroller with a common frame structure having upper "12," lower "20," and rear-wheel "30" frame members joined at a folding assembly "22" that allows the frame to collapse for storage. (EX1049, ¶¶0039, 0042, 0045, 0049-0050.)

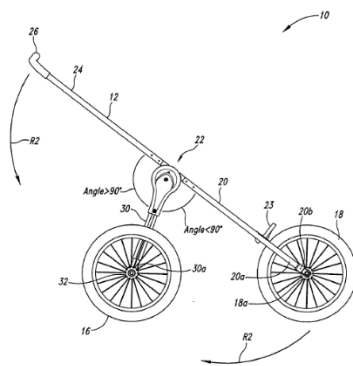


Fig. 4

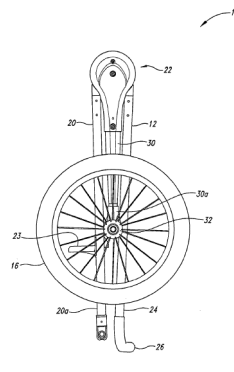


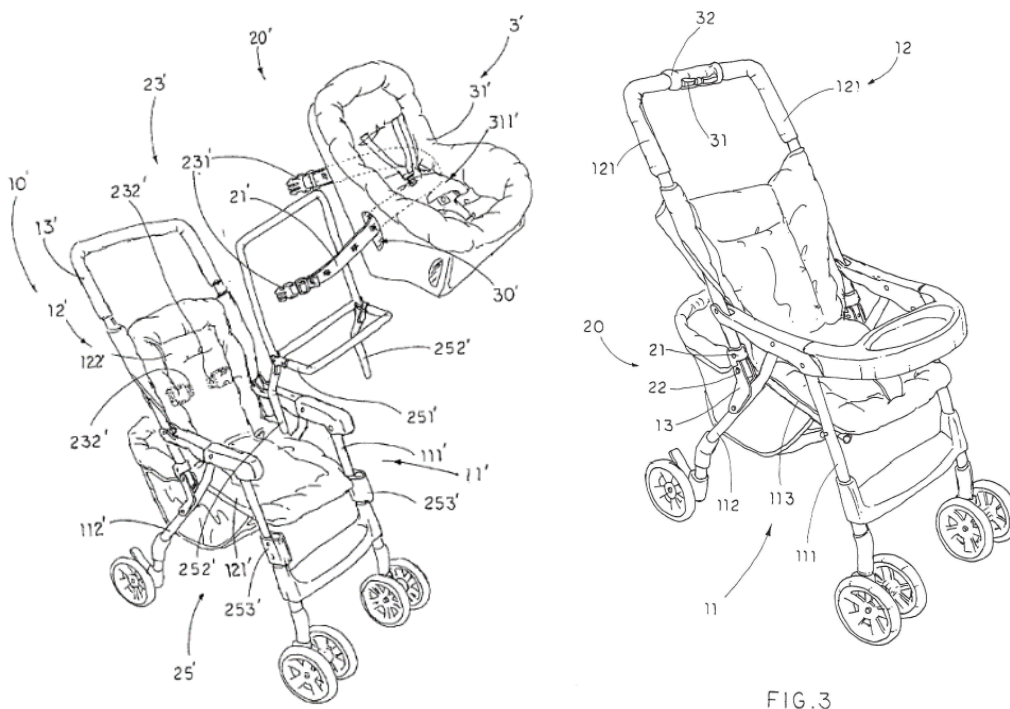
Fig. 6

EX1049, Figs. 4, 6

D. Hsia and Hsia '902

Hsia issued March 9, 2004 and Hsia '902 published April 24, 2003. (EX1050, Cover; EX1054, Cover.) Both are prior art under 102(a)(1)-(2). Hsia discloses a stroller having an upper/handle "13," lower "11/111," and rear-wheel

“12/112” frame members. (EX1050, 4:32-5:11.) Hsia’s second embodiment discloses a first seat can be used in conjunction with a second seat “3” that is removably coupled to the stroller frame using an “adaptor 25”. (EX1050, 4:44-49.) As shown below, Hsia ’902 discloses a very similar stroller structure as Hsia (minus the removable second seat). Instead, Hsia ’902 details how the “folding joint 13” operates to fold/unfold the stroller frame “11.” (EX1054, ¶0029.)



EX1050, Fig. 4; EX1054, Fig. 3

IX. Unpatentability Grounds

The references below render the claimed subject matter unpatentable and Petitioner has a reasonable likelihood of prevailing as to each of the following

grounds. 35 U.S.C. § 314(a); 37 C.F.R. § 42.104(b)(4).

A. Ground 1 – Claims 1-9 and 17-20 are unpatentable as being obvious in view of Rolicki

1. Claim 1⁹

a. [1.0] - A stroller, comprising:

Rolicki discloses a stroller. (EX1047, 1:13-14, 1:21-61, 3:49-64, Fig. 1; EX1001, ¶¶281-282.)

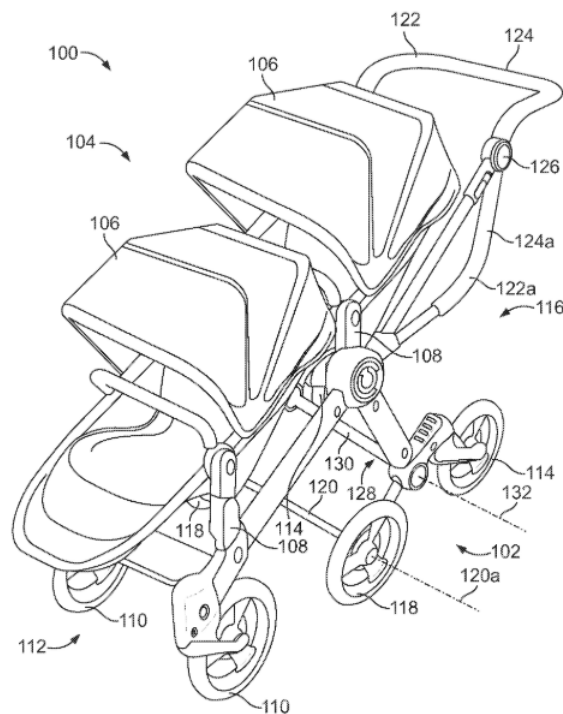


FIG. 1

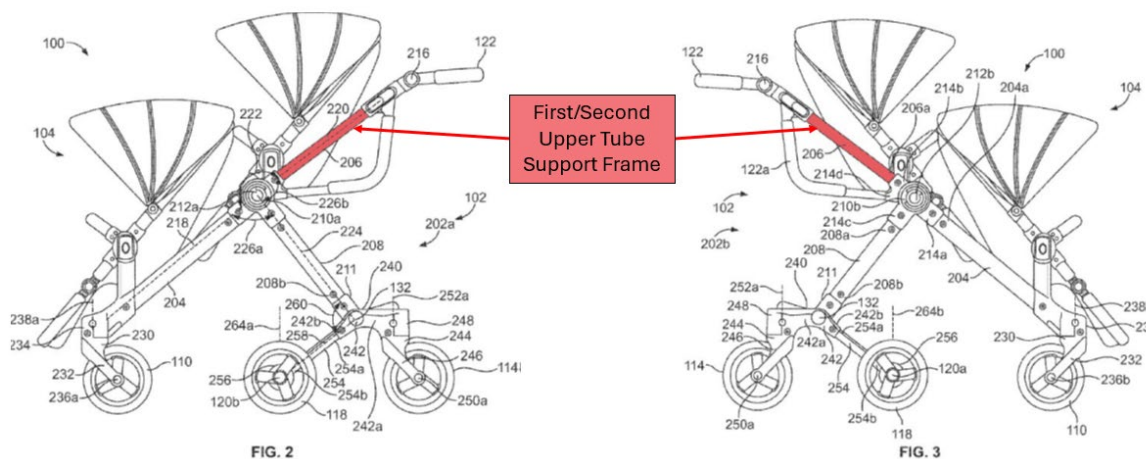
EX1047, Fig. 1

b. [1.1] - a stroller frame comprising: a first upper

⁹ See Appendix A for list of the Challenged Claims as referenced in Grounds 1–3.

tube support frame; a second upper tube support frame;

Rolicki discloses a stroller frame (“102”) comprising a left/right (red) “upper frame supports 206” satisfying limitation [1.1]. (EX1047 5:35-55, 5:56-6:28, Figs. 2-3; EX1001, ¶¶284-287.)



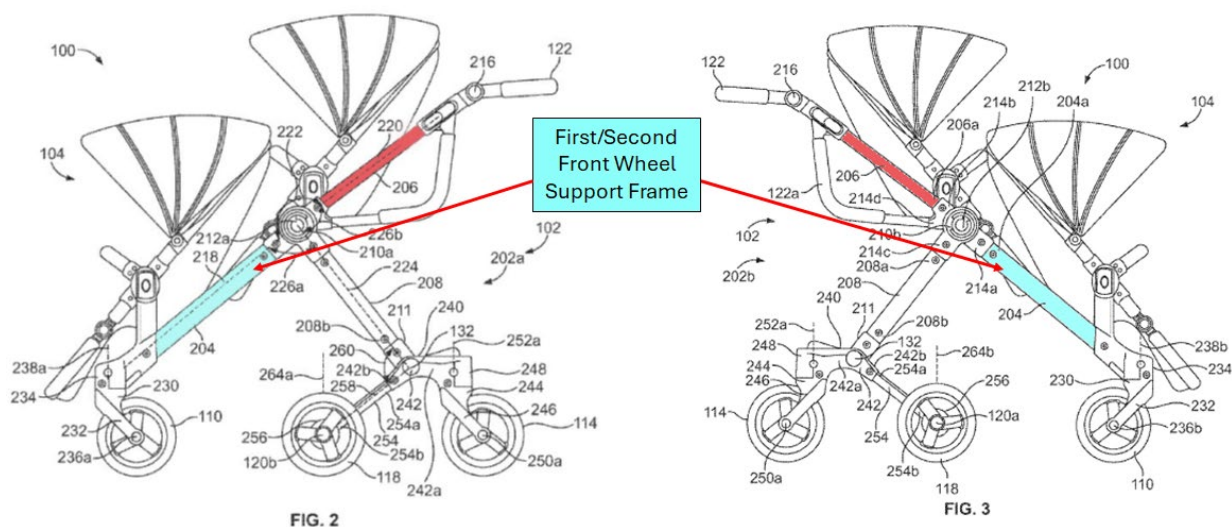
EX1047, Figs. 2 and 3¹⁰

- c. [1.2]/[1.3] - a [first/second] front wheel support frame rotatably adjusted to be substantially parallel with respect to the [first/second] upper tube support frame when the stroller frame is unfolded from a folded configuration;

Rolicki discloses a stroller frame (“102”) comprising left/right “lower frame supports 204” (blue), which a POSITA would understand as being “first/second front wheel support frames.” (EX1047, 5:35-55, 5:56-6:28, 7:4-16, Figs. 2-3;

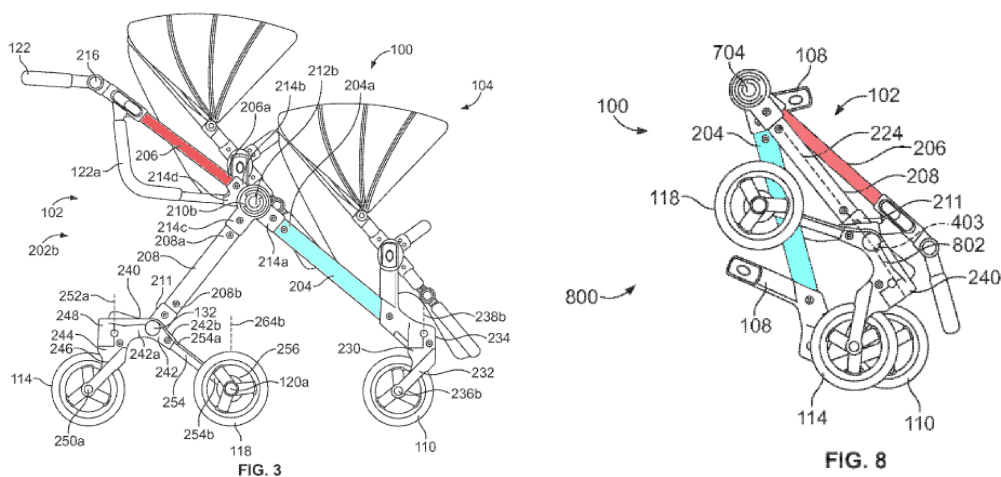
¹⁰ All annotations added unless otherwise noted.

EX1001, ¶¶288-290.)



EX1047, Figs. 2 and 3

Rolicki's “pivot joints 210” connect the lower (“204” in blue) and upper (“206” in red) support frames allowing the stroller frame to operate in an “unfolded” and “folded” configuration as shown below. (EX1047, 5:56-6:28, 12:22-33, Figs. 2-3, 7-8; EX1001, ¶291.)



EX1047, Figs. 7-8

Rolicki teaches when the stroller “frame 102 is erected, the lower frame support 204 and the upper frame support 206 of the first side frame assembly 202a are substantially aligned or parallel relative to each other[.]” (EX1047, 6:29-40, Claim 17; EX1001, ¶¶292-293.) A POSITA would understand (red dashed line) the axis “218” of the lower frame is offset from the axis “220” of the upper frame. A POSITA would understand these frames to be parallel or “substantially parallel” in the unfolded configuration. *Id.*

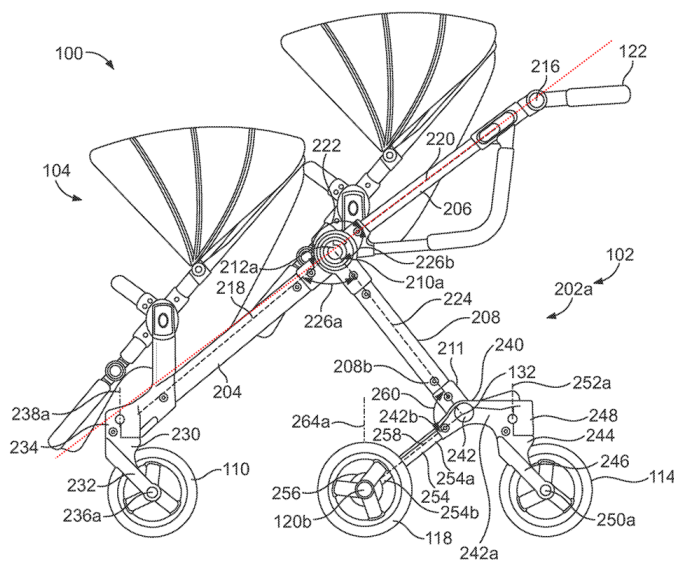


FIG. 2

EX1047, Fig. 2

Additionally, a POSITA would recognize the upper support “206” and lower support “204” are sized differently. A POSITA would understand this creates an offset between the lower support “204” and the upper support “208” (red dashed line). A POSITA would understand this to further illustrate the upper support is

“substantially parallel” to the lower support. (EX1001, ¶294.)

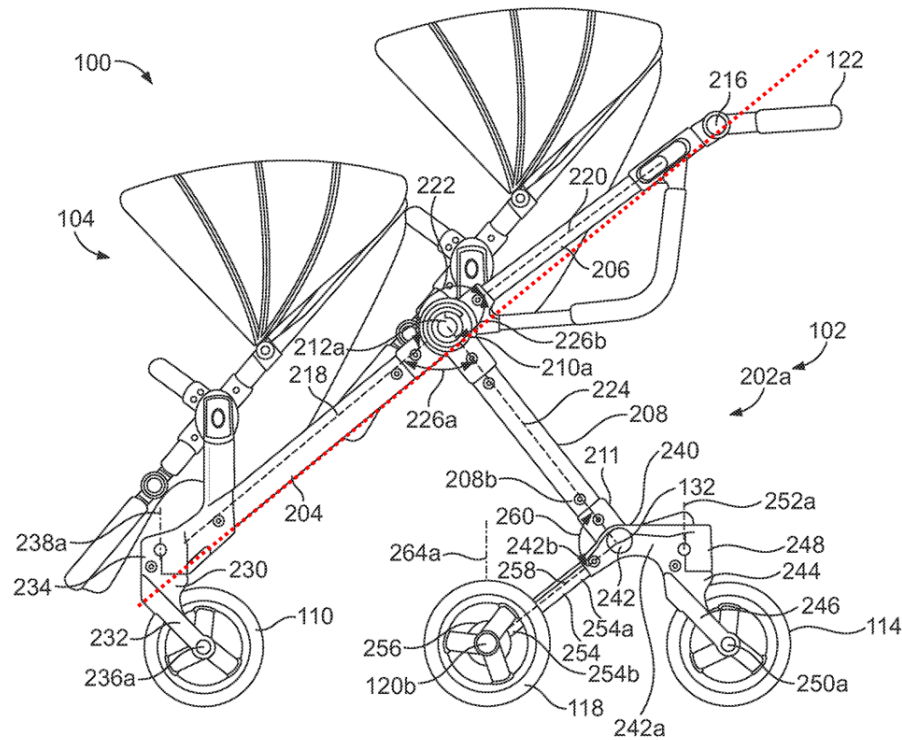


FIG. 2

EX1047, Fig. 2

A POSITA would understand Figure 18 further illustrates the upper support “206” (red) is offset from the lower support “204” (blue). (EX1047, 15:23-37.) The top view illustrates how the upper/lower supports are designed to be offset from each other. A POSITA would understand the upper support is “substantially parallel” to the lower support. (EX1001, ¶¶295-298.)

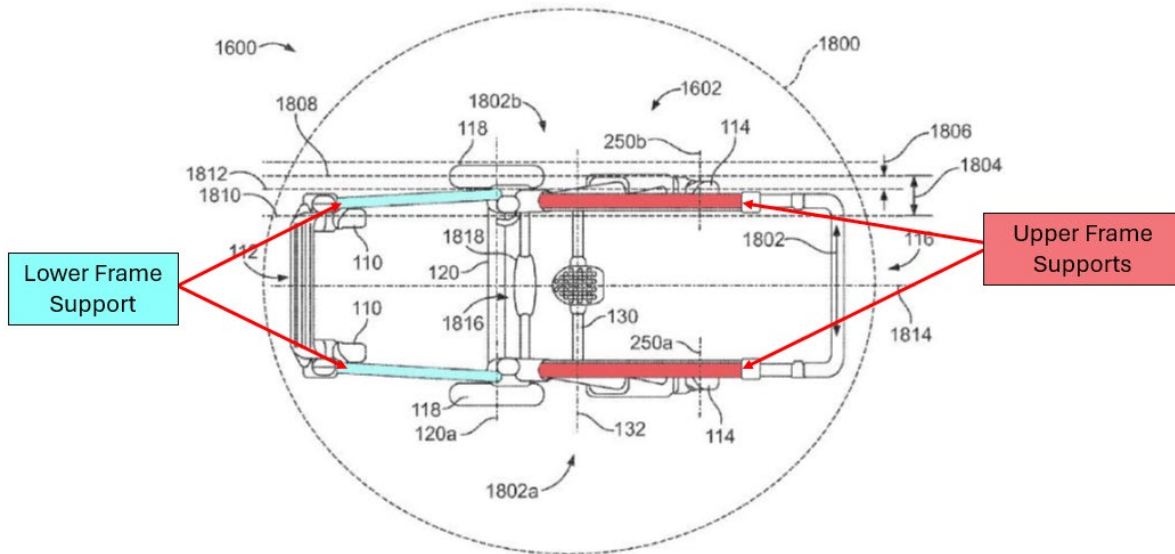
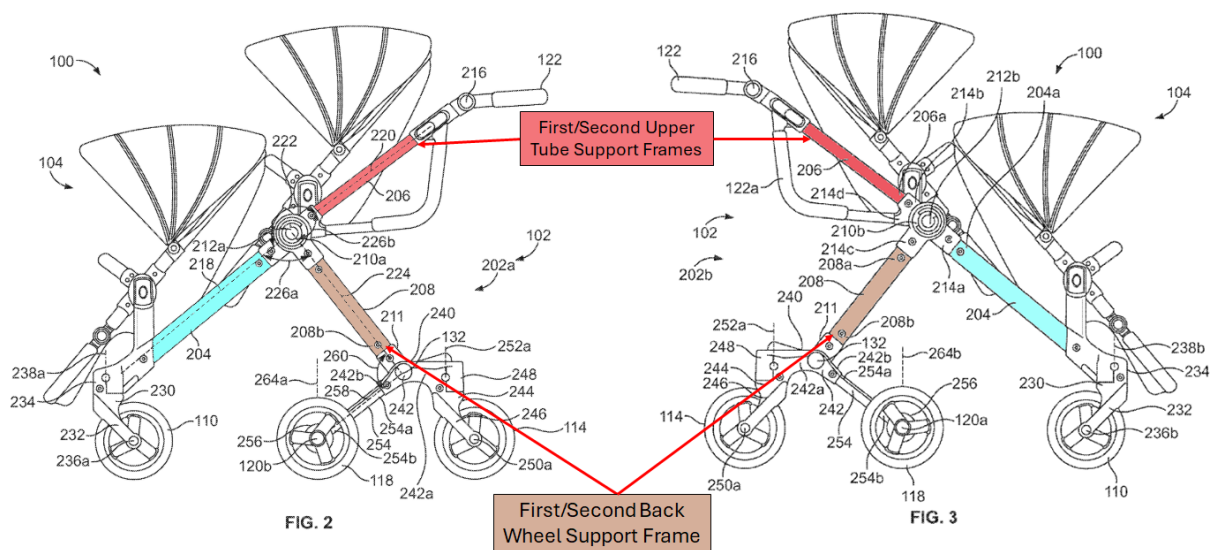


FIG. 18

EX1047, Fig. 18

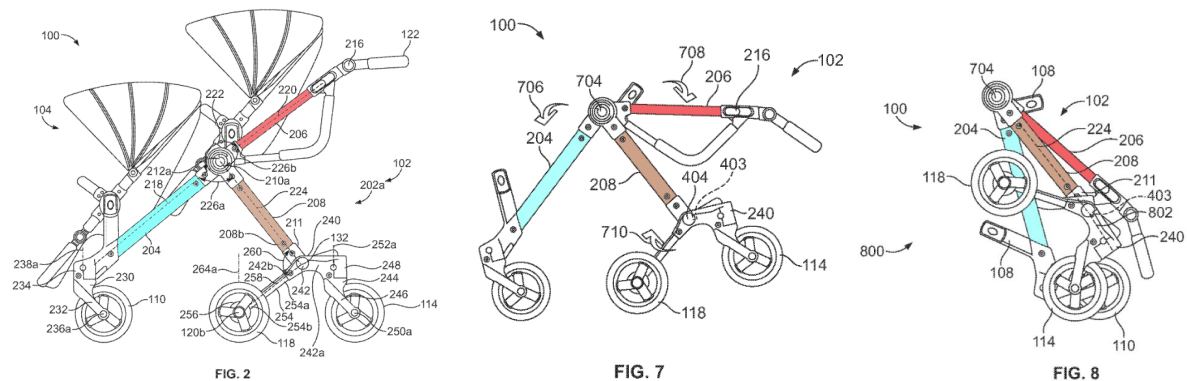
- d. [1.4]/[1.5] - a *[first/second] back wheel support frame rotated with respect to the [first/second] upper tube support frame; and*

Rolicki discloses “intermediate frame supports 208” (brown), which a POSITA would understand as the first/second “rear wheel support frame.” (EX1047, 5:35-55, Figs. 2-3; EX1001, ¶300.)



EX1047, Figs. 2 and 3

As shown, a POSITA would understand the “intermediate frame supports 208” (brown) is connected to “pivot joint 210” allowing for rotation of the intermediate frame supports 208 (brown) relative to the upper frame supports 206 (red). (EX1047, 6:41-53, 5:56-6:28, 12:22-33, Figs. 2, 7-8; EX1001, ¶¶301-304.)



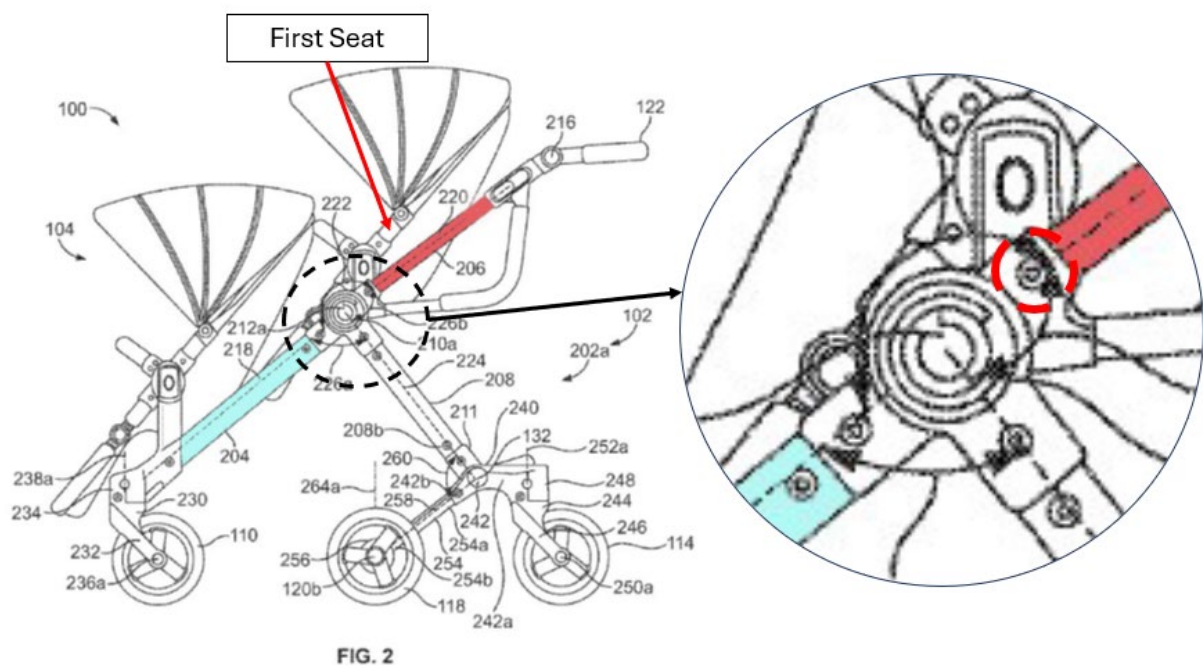
EX1047, Figs. 1, 7-8

- e. [1.6] - a plurality of wheels comprising at least one front wheel and a plurality of back wheels;

EX1047, Fig. 18

- f. [1.7] - a first seat coupled along the first upper tube support frame and the second upper tube support frame at a first vertical position of the stroller frame;**

Rolicki discloses a seating area 104 accommodating one or more infant seats 106. (EX1047, 3:51-61, Figs. 1-3; EX1001, ¶308.) The upper “infant seat 106” (*i.e.*, “first seat”) is removably “coupled” to left/right “seat mounts 108.” (EX1047, 3:51-55.) A POSITA would understand the “seat mounts” and upper frame (red) are coupled at a common connection point (enlarged below). (EX1047, 12:50-52, 13:1-9; EX1001, ¶¶309.)



EX1047, Fig. 2

A POSITA would understand the upper seat 106 (“first seat”) is “coupled along” the “first/second upper tube support frames” (red) at a “first vertical position” (V1). (EX1047, 3:51-64, 13:1-9; EX1001, ¶¶308-311.) Alternatively, a POSITA would have further understood Rolicki discloses the “seat mounts” can be adjusted upward along the “frame 102”—*i.e.*, “frame support 204, 206” (red). (EX1047, 3:61-64, 5:47-55; EX1001, ¶312.) If the seat mount is adjusted upward, the coupling would be along the “frame 206” (red) and the vertical position “V1” would be further adjusted upward. *Id.*

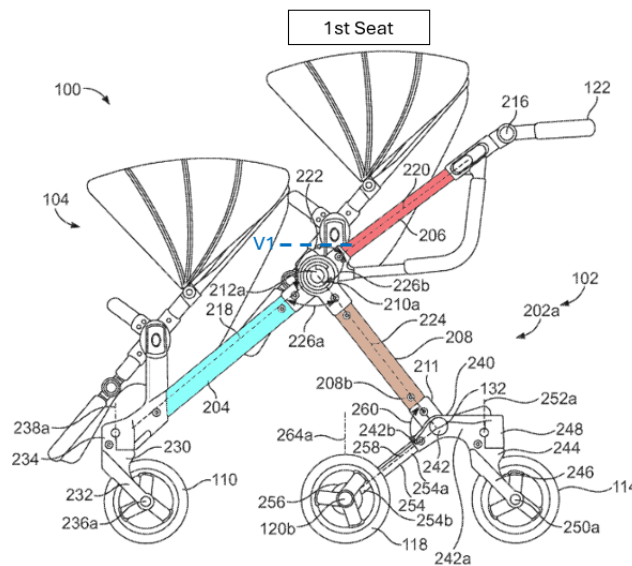
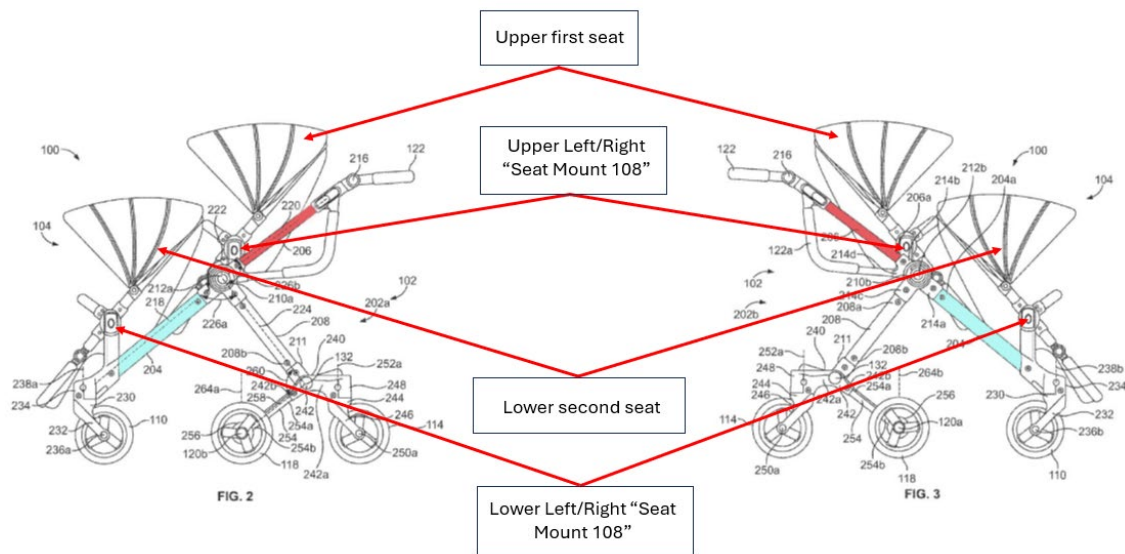


FIG. 2

EX1047, Fig. 2

- g. [1.8]/[1.9] - a [first/second] seat attachment adapter coupled to the [first/second] front wheel support frame at a [second/third] vertical position of the stroller frame that is below the first vertical position;

Rolicki discloses lower seat mounts 108, which a POSITA understands as the first/second “seat attachment adapters.” (EX1047, 3:49-64, Figs. 2-3; EX1001, ¶¶314-315.)



EX1047, Figs. 2-3

Rolicki discloses an embodiment where the first/second “seat attachment adapters” are removably coupled “from an opening or pocket 1002 of the connector 902 or the frame 202.”¹¹ (EX1047, 13:1-9; EX1001, ¶¶316-318.)

¹¹ Rolicki incorrectly calls the frame “202,” instead of the correct “102,” in some paragraphs of the specification.

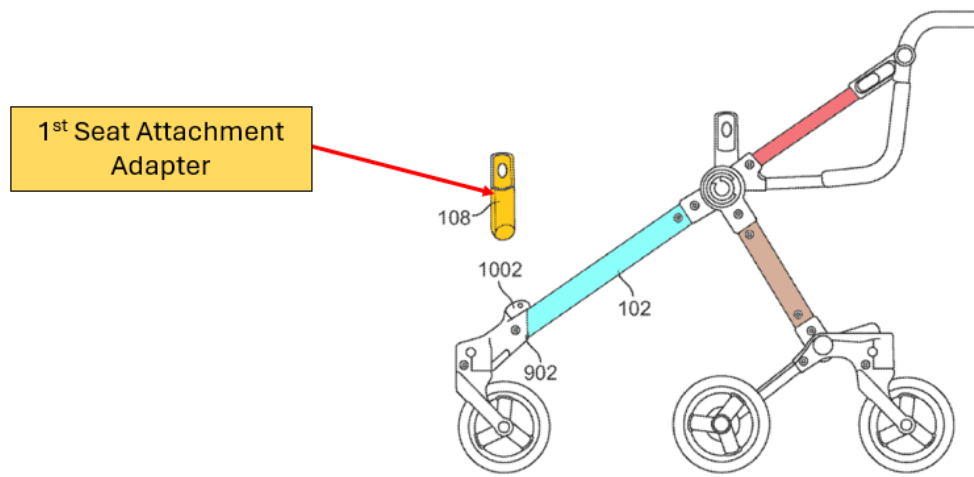


FIG. 10

EX1047, Fig. 10

As annotated below, a POSITA would understand the first/second lower “seat mounts 108” (gold) are “coupled to first/second front wheel support frame” at a second/third “vertical position” (V2/V3) below the “first vertical position” (V1). (EX1001, ¶¶319-322.)

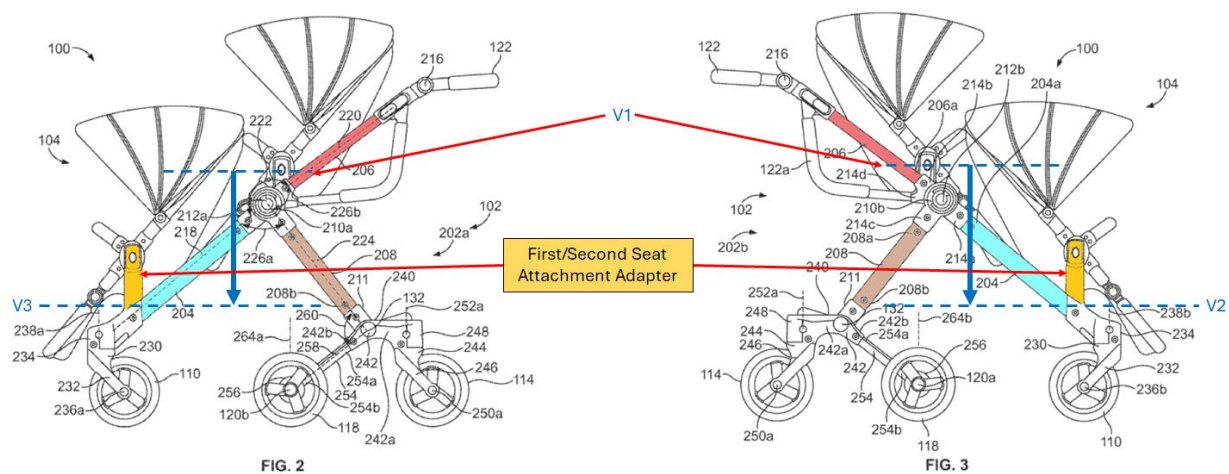


FIG. 2

FIG. 3

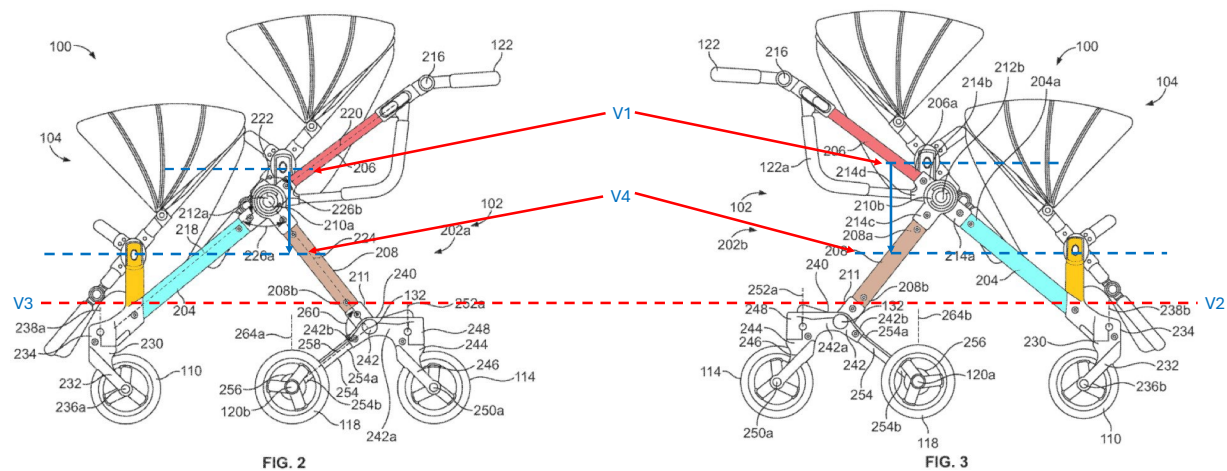
EX1047, Figs. 2 and 3

h. [1.10] - wherein a second seat is removably

coupled to the first seat attachment adapter and the second seat attachment adapter to position the second seat at a fourth vertical position that is below the first vertical position and wherein the second vertical position and the third vertical position are at a same vertical height.

Rolicki discloses the lower “second” seat can be “removably couple[d] to the seat mounts 108” (gold). (EX1047, 3:51-61; EX1001, ¶¶324-325.)

As shown below, a POSITA would understand Rolicki discloses the second lower seat 106 is removably coupled to the first/second attachment adapters (gold) “to position the second seat at a fourth vertical position (V4) that is below the first vertical position (V1).” (EX 1001, ¶326-328.) Rolicki also teaches the second/third “vertical positions” (V2/V3) are at the “same vertical height.” (*Id*; see also EX1047, Fig. 9A.)



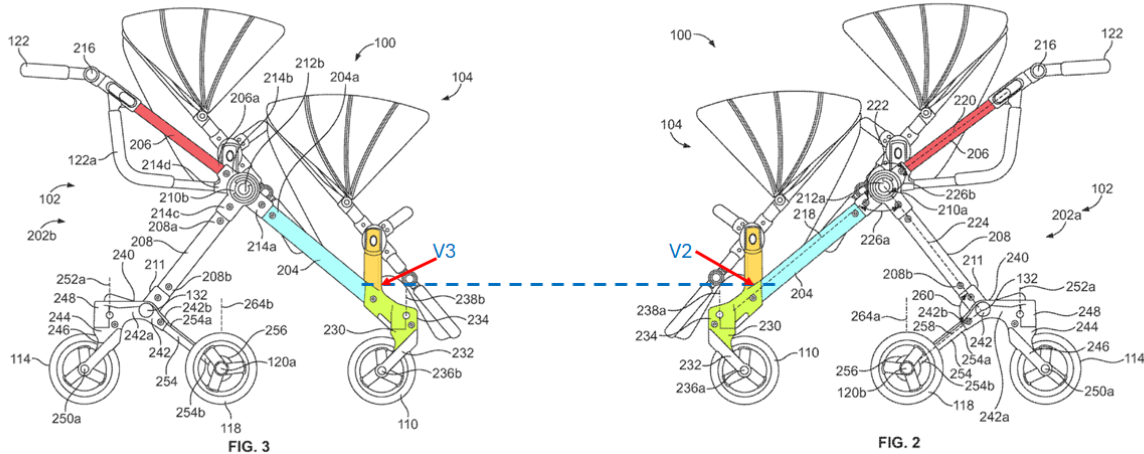
EX1047, Figs. 2 and 3¹²

2. **Claim 2 - The stroller of claim 1, further comprising: a first seat attachment housing disposed adjacent the first front wheel support frame at the second vertical position; a second seat attachment housing disposed adjacent the second front wheel support frame at the third vertical position; wherein the first seat attachment adapter is coupled to the first seat attachment housing and the second seat attachment adapter is coupled to the second seat attachment housing.**

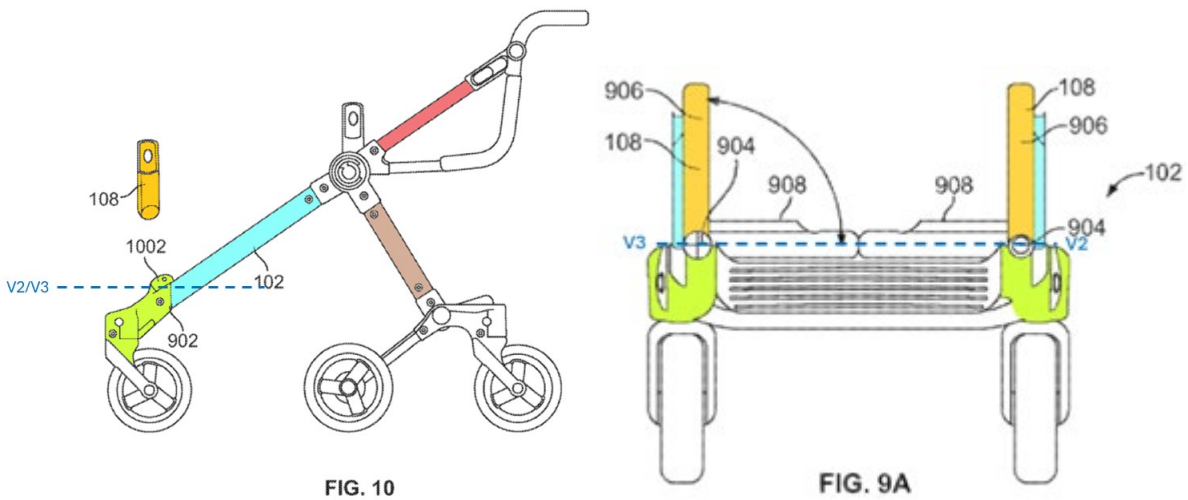
A POSITA would understand Rolicki teaches first/second “seat attachment housings” (green). (EX1001, ¶331.) A POSITA would understand the first/second “housings” are coupled to the frame and “disposed adjacent” the first/second “front wheel support frame” (blue) at the second/third “vertical positions” (V2/V3). (EX1047, 7:4-9, 13:1-9, Figs. 2-3; EX1001, ¶331-333.) Rolicki’s “adapters” (gold)

¹² In this example, V1 and V4 were placed at the connectors to provide a common point of comparison. The claim is not so limited as discussed *supra*.

are coupled or removably coupled to the “housing” (green). (EX1047, 3:49-64, 12:50-52, 13:1-9, Fig. 1, Figs. 9-10; EX1001, ¶¶331-332.)



EX1047, Figs. 3, 2



EX1047, Figs. 10, 9A

3. **Claim 3** - *The stroller of claim 2, wherein the first seat attachment housing extends into the first front wheel support frame and the second seat attachment housing extends into the second front wheel support frame.*

A POSITA would understand Rolicki's first/second "front wheel support frame" (blue) to extend into and are affixed by bolts (circled red below) to the first/second "housing 902." (EX1047, 7:8-9.) A POSITA would have understood the connection method could be reversed where the " housings 902" are modified to be inserted into ("extend into") and be affixed to the "front wheel support frames" (blue). (*See also* EX1047, 6:9-15.) (EX1001, ¶¶338-341.) A POSITA would have understood this is a design choice on how to connect to mechanical parts and a POSITA would have had the ability and knowledge to modify the design to reverse the connection between these parts. (EX1001, ¶342.)

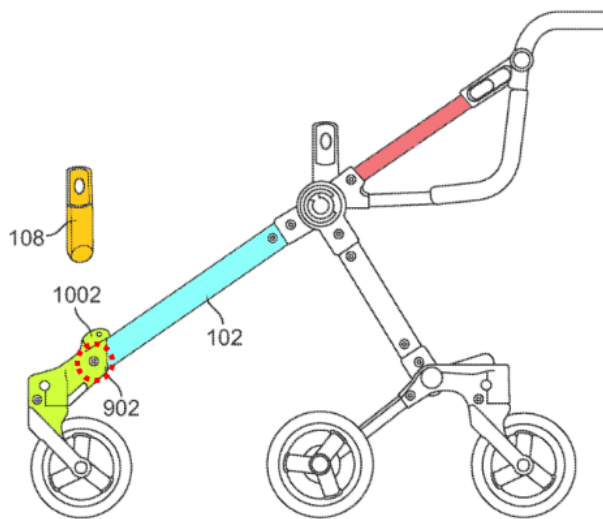


FIG. 10

EX1047, Fig. 10

4. **Claim 4 - *The stroller of claim 2, wherein each of the first seat attachment adapter and the second seat attachment adapter has a first end and a distal second end.***

A POSITA would understand the first/second “adapters” (gold) have a “first end” and a “distal second end.” (EX1047, Figs. 2-3, Fig. 10; EX1001, ¶344.)

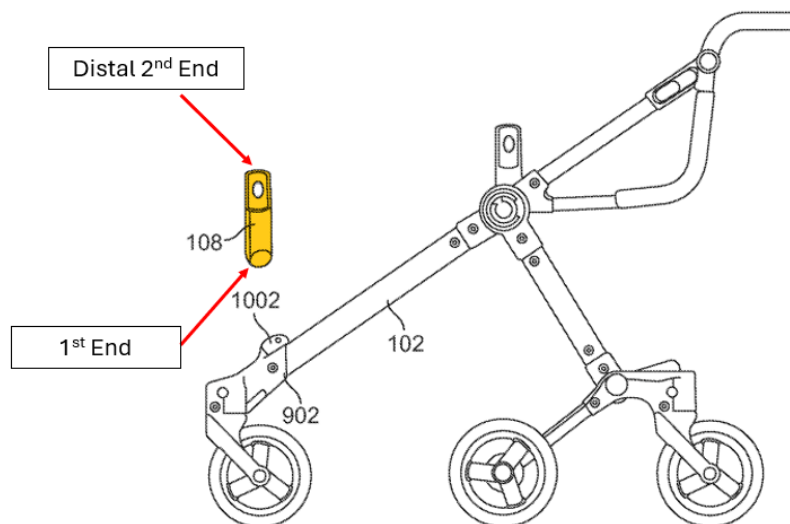


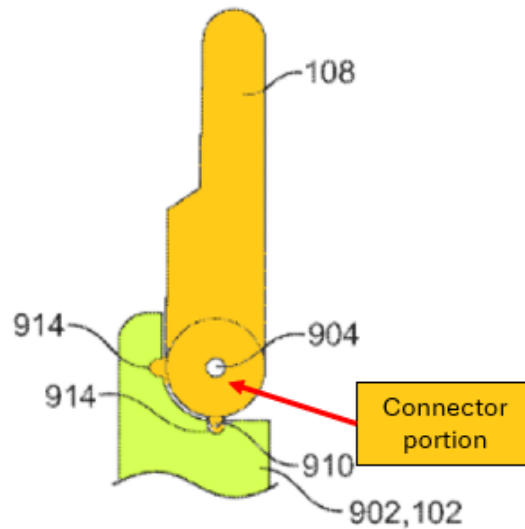
FIG. 10

EX1047, Fig. 10

5. ***Claim 5 - The stroller of claim 4, wherein the first end comprises a connector portion and is coupled to one of the first seat attachment housing and the second seat attachment housing.***

Rolicki teaches a POSITA (Figs. 2/3 above) the first ends of the “seat mounts” are permanently coupled to the “housing 902” or stroller frame. (EX1047, 13:1-9; EX1001, ¶346.) Rolicki teaches (Fig. 10 above) the “first end” of the seat mount can be removably coupled to the “housing 902” or stroller frame. (*Id.*) Rolicki further discloses (Fig. 9B below) “seat mounts 108 ... are pivotally coupled or attached to a connector or housing 902 and/or the frame 202[.]”

(EX1047, 12:50-52, 12:56-64; EX1001, ¶¶347-348.)



EX1047, Fig. 9B

6. Claim 6 - *The stroller of claim 4, wherein the second seat is removably coupled to the second end.*

Rolicki discloses the “infant seats 106 removably couple to the seat mounts 108.” (EX1047, 3:53-61, Figs. 2-3; EX1001, ¶350.) A POSITA would understand the second seat is removably coupled to the “second end” of the “seat attachment adapters.” (EX1001, ¶351.)



EX1047, Fig. 2

7. ***Claim 7 - The stroller of claim 1, wherein the first seat is one of a baby seat, a car seat, a stroller seat, a bassinet, a baby carrier, or a pram and the second seat is one of a second baby seat, a second car seat, a second stroller seat, a second bassinet, a second baby carrier, or a second pram.***

Rolicki discloses two “infant seats 106” (upper “first seat” and lower “second seat”) which could be “one of a baby seat ... [or] a stroller seat”. (EX1047, 3:50-53, Fig. 1; EX1001, ¶353.)

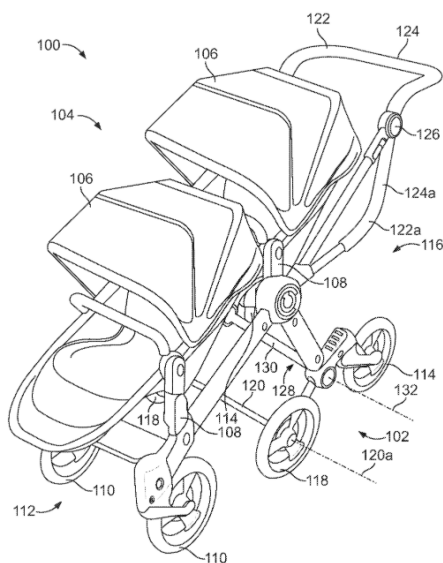
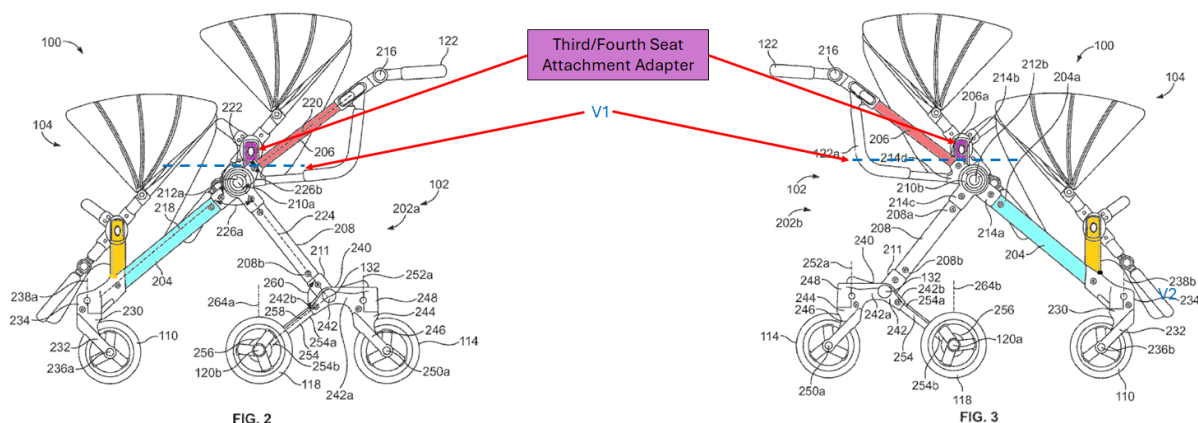


FIG. 1

8. Claim 8 - *The stroller of claim 1, further comprising: a third seat attachment adapter coupled to the stroller frame at the first vertical position; and a fourth seat attachment adapter coupled to the stroller frame at the first vertical position; wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter.*

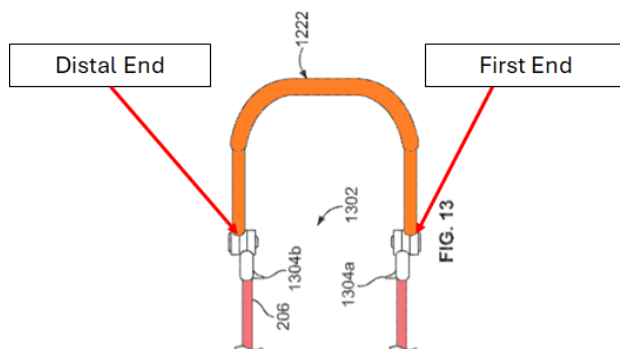
A POSITA would understand the upper left/right “seat mounts 108” are the third/fourth “seat attachment adapters” (purple). (EX1001, ¶¶355-356.) A POSITA would understand the third/fourth “adapters” are located at the “first vertical position” (V1). *Id.* A POSITA would understand, the upper seat 106 (“first seat”) is removably coupled to the third/fourth “seat attachment adapters” (purple). (EX1047, 3:51-61, Figs. 2-3; EX1001, ¶¶358-359.)



EX1047, Figs. 2-3

9. **Claim 9** - *The stroller of claim 1, further comprising a handle comprising a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame.*

Rolicki discloses a “handle 1222 [orange] coupled to the upper frame support 206 of FIG. 12.” (EX1047, 13:60-61, Figs. 12-13; EX1001, ¶362.) A POSITA would have understood the handle 1222 has a “first end” and a “distal second end” coupled to the first/second “upper frame support 206” (red). (EX1047, 5:5-18; 13:60-14:4; 13:45-13:59, Figs. 2-3, Figs. 12-13; EX1001, ¶361, 363-364.)



EX1047, Fig. 13

10. Claim 17

a. [17.0] - *A stroller, comprising:*

See [1.0]. (EX1001, ¶¶281-282, 366).

b. [17.1] - *a stroller frame comprising: a first upper tube support frame; a second upper tube support frame;*

See [1.1]. (EX1001, ¶¶284-287, 367.)

c. [17.2]/[17.3] - *a [first/second] back wheel support frame;*

See [1.4]/[1.5]. (EX1001, ¶¶300-304, 368-369.)

d. [17.4]/[17.5] - *a [first/second] front wheel support frame;*

See [1.2]/[1.3]. (EX1001, ¶¶288-290, 370-371.)

e. [17.6] - *a plurality of wheels comprising at least one front wheel and a plurality of back wheels;*

See [1.6]. (EX1001, ¶¶306, 372.)

f. [17.7] - *a first seat coupled to the stroller frame at a first vertical position of the stroller frame;*

Claim limitation [17.7] is similar to claim limitation [1.7] and that analysis is incorporated. Rolicki discloses “a first seat is coupled to the stroller frame at a first vertical position of the stroller frame.” As discussed in claim limitation [1.7], the upper seat 106 is coupled to the frame by upper seat mounts 108 at a first vertical position (V1). (EX1047, 3:51-61, 12:50-52; EX1001, ¶¶308-312.)

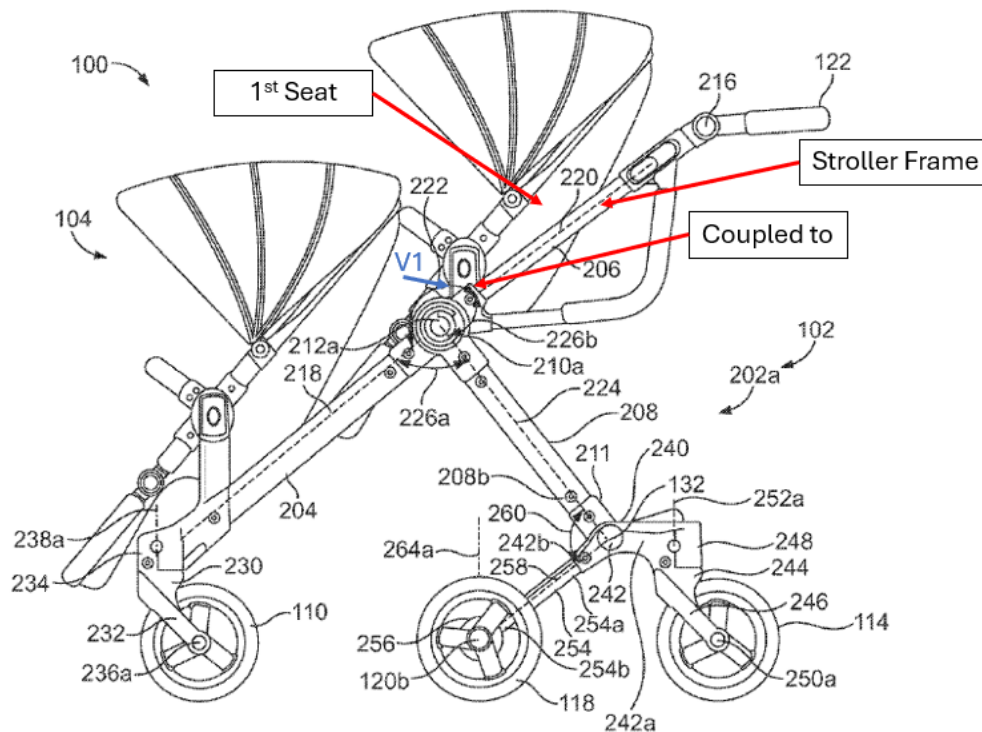


FIG. 2

EX1047, Fig. 2

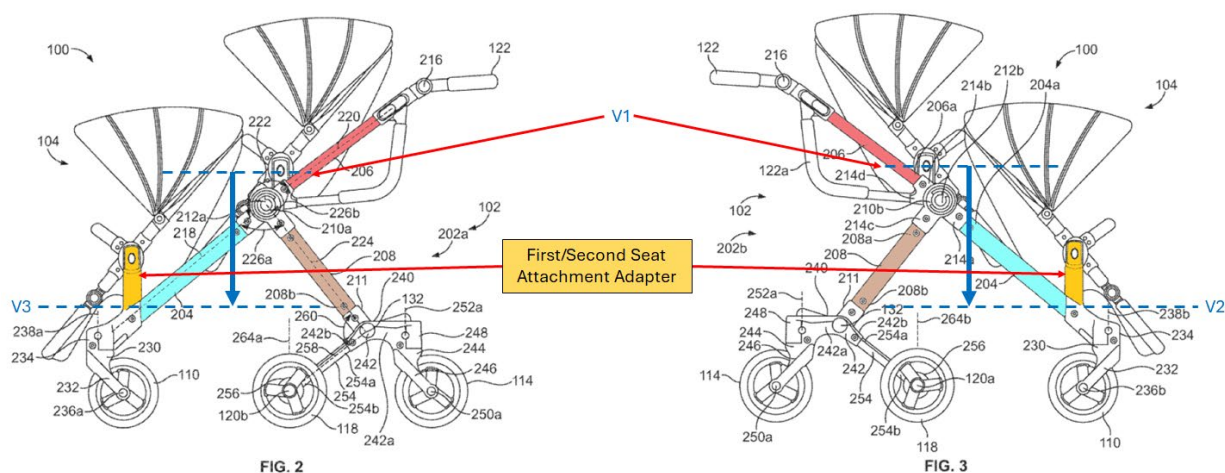
- g. [17.8] / [17.9] - a [first/second] seat attachment housing disposed adjacent the [first/second] front wheel support frame;

See limitation [2.0]. (EX1001, ¶¶331-334, 375.)

- h. [17.10] / [17.11] - a [first/second] seat attachment adapter coupled to the [first/second] seat attachment housing at a [second/third] vertical position of the stroller frame that is below the first vertical position when the [first/second] upper tube support frame is substantially parallel with the [first/second] front wheel support frame when the stroller frame is unfolded from a folded configuration;

As discussed in claim limitations [1.8], [1.10] and 2, Rolicki discloses a “first seat attachment adapter” (seat mount 108) coupled to “first seat attachment housing (housing 902) at a second vertical position of the stroller frame that is below the first vertical position.” (EX1001, ¶¶314-322, 324-328, 331-337, 376, 382.) As discussed in limitations [1.2]-[1.3], Rolicki discloses the upper tube frames (red) being “substantially parallel” to the lower tube frames (blue) when the stroller is in the unfolded configuration. (EX1001, ¶¶288-298, 377-378, 382.)

Rolicki discloses “a first seat attachment adapter ([gold]) coupled to the first seat attachment housing ([green]) at a second vertical position ([V2]) of the stroller frame that is below the first vertical position ([V1]) when the first upper tube support frame [red] is substantially parallel with the first front wheel support frame ([blue]) when the stroller frame is unfolded from a folded configuration.” (EX1047, 13:10-12, 16-19; EX1001, ¶¶379-380, 382.)



EX1047, Figs. 2-3

- i. **[17.12] - wherein the first seat is coupled along the first upper tube support frame and the second upper tube support frame and**

See limitation [1.7]. (EX1001, ¶¶308-312, 384.)

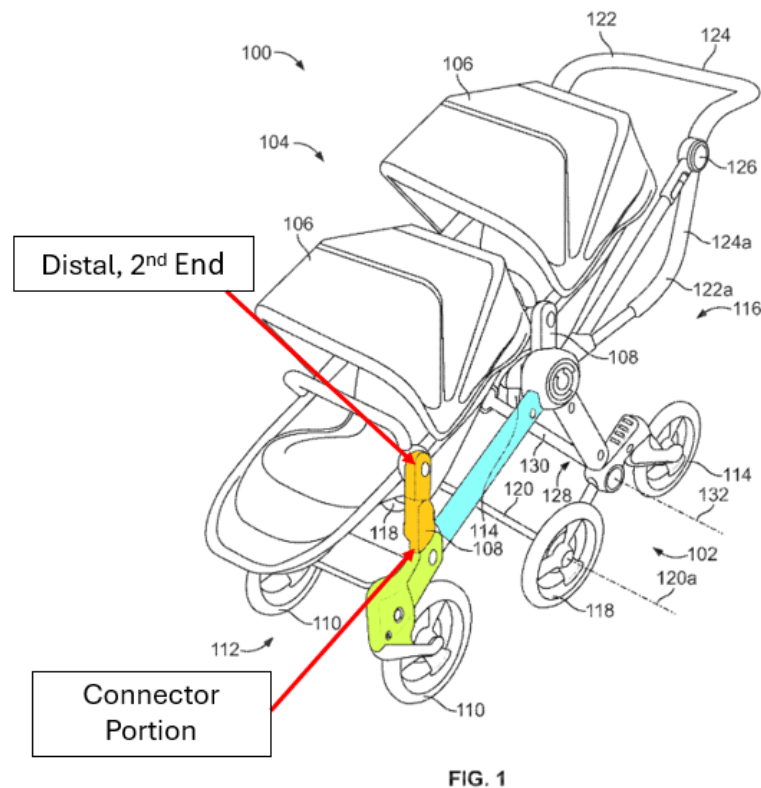
- j. **[17.13] - wherein a second seat is removably coupled to the first seat attachment adapter and the second seat attachment adapter.**

See limitation [1.10]. (EX1001, ¶¶324-328, 385.)

- 11. **Claim 18 - The stroller of claim 17, wherein each of the first seat attachment adapter and the second seat attachment adapter comprises: a first end comprising a connector portion coupled to one of the first seat attachment housing and the second seat attachment housing; and a distal second end, wherein the second seat is removably coupled to the second end.**

Claim limitation [18.0] is like limitations [1.8-1.10] and claims [4.0]–[5.0].

Again, Rolicki discloses “seat mounts 108 of the illustrated example are pivotally coupled or attached to ... housing 902 and/or the frame 202.” (EX1047, 12:50-53) Rolicki teaches the first/second “seat attachment adapters” (gold) have a “first end” comprising a “connector portion” coupled to one of the first/second “ housings” (green). Rolicki teaches a “distal second end” allows the lower “second” seat to be removably coupled. (EX1047, 12:46-67, Figs. 1, 2-3, 10; EX1001, ¶¶314-322, 324-328, 344-348, 386.)



EX1047, Fig. 1

12. **Claim 19** - *The stroller of claim 17, further comprising a handle comprising a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame.*

See limitation [9.0.] (EX1001, ¶¶361-364, 388.)

13. **Claim 20** - *The stroller of claim 17, further comprising: a third seat attachment adapter coupled to the first upper tube support frame; and a fourth seat attachment adapter coupled to the second upper tube support frame; wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter.*

Claim limitation [20.0] is obvious for the same reasons discussed in claim limitations [8.0]-[8.1]. (EX1001, ¶¶355-359.) Again, Rolicki discloses “the seat

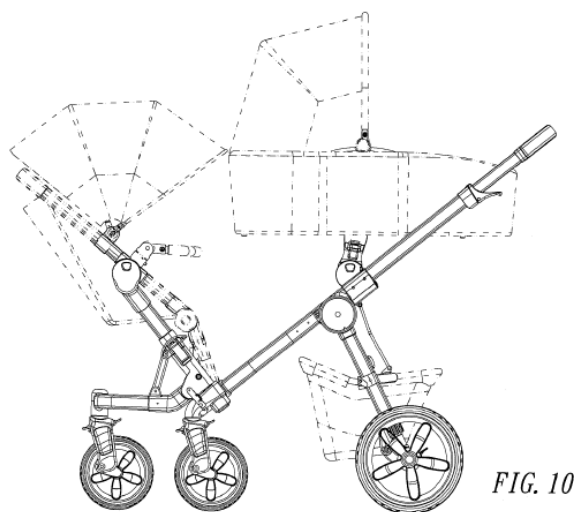
mounts 108 may be adjusted along the frame 102 to adjust a position of the infant seats 106[.]” (EX1047, 3:61-63.) A POSITA would therefore understand the third/fourth “seat mounts” (*i.e.*, third fourth “seat attachment adapters”) could be adjusted upward and positioned and coupled to the first/second “upper tube support frames.” (EX1001, ¶¶309, 389-390.)

B. Ground 2 – Claims 1-9 and 17-20 are unpatentable as being obvious in view of Liao and Cheng

1. Claim 1

a. [1.0]

Liao is a design patent with drawings a POSITA would understand to be detailed engineering drawings sufficiently describing details and operation of the stroller claimed. (EX1001, ¶392.) A POSITA would understand Liao’s drawings disclose “a stroller.” (EX1048, Fig. 10; EX1001, ¶¶392-394.)



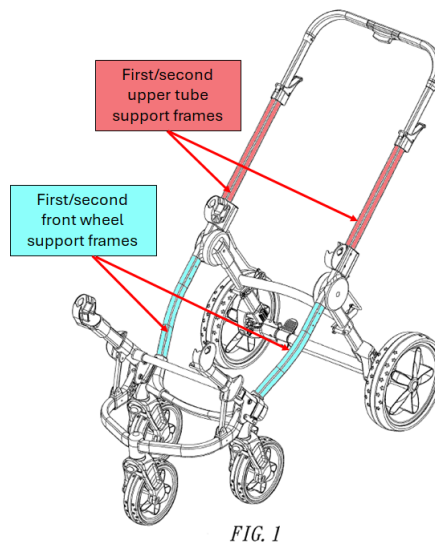
EX1048, Fig. 10

During prosecution of U.S. Application No. 18/448,417 (“the ’417 Application”), the Examiner rejected claims similar in scope to those of the ’568 Patent as anticipated by Liao alone. (EX1024, 1203.) The Examiner’s rejection, which confirms what a POSITA would understand, stated “Liao discloses: A convertible stroller ... configured for being converted from a single stroller to a double stroller[.]”¹³ (*Id*; EX1048, ¶¶395-398.)

b. [1.1]

Liao teaches the stroller includes left (“first”) and right (“second”) “upper tube support frames” (red). (EX1048, Figs. 1, 4-5; EX1001, ¶¶400-401.)

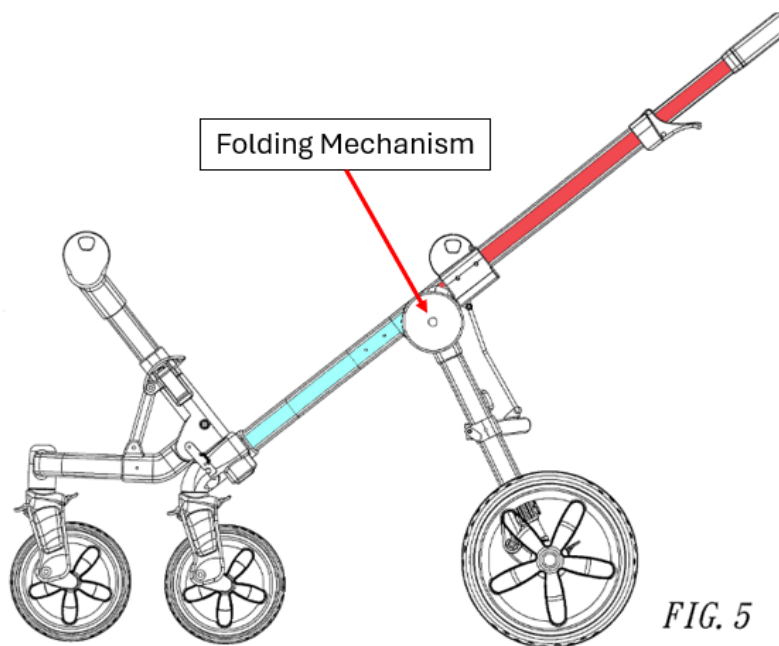
¹³ While PO amended the pending ’417 Application claims, PO never disputed the Examiner’s finding regarding what Liao teaches as used in Ground 2. (EX1024, 1394.)



EX1048, Fig. 1

c. [1.2] / [1.3]

Liao teaches first/second front wheel support frames (blue). (EX1048, Fig. 1; EX1001, ¶¶403-404.) Liao informs a POSITA the upper tube frames (red) are joined to the front wheel frames (blue) by what appears to be a circular folding mechanism. (EX1048, Figs. 4-5; EX1001, ¶¶405, 409.)

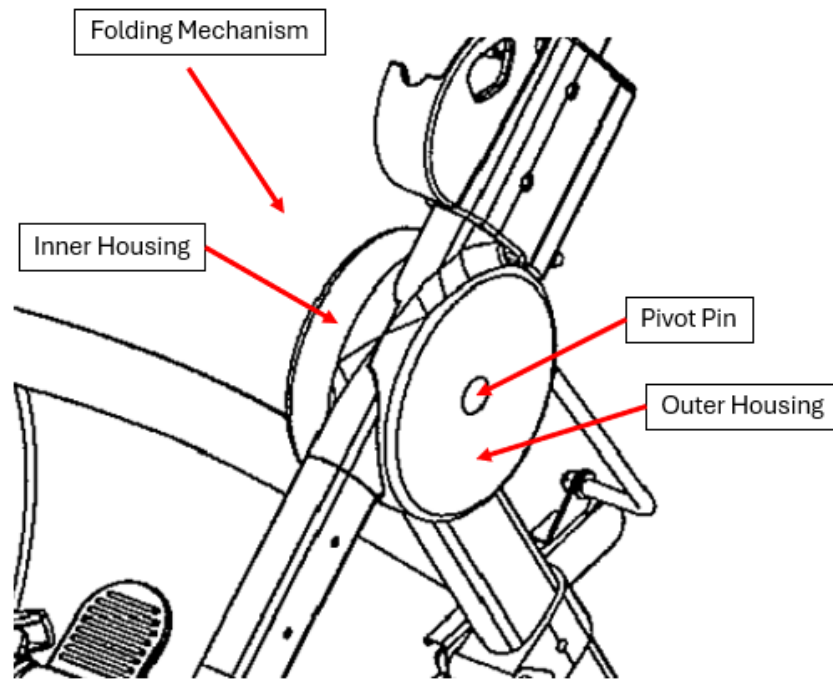


EX1048, Fig. 5

Prior to December 2008, A POSITA understood strollers folding mechanisms were used to allow the stroller frame to be rotated between a folded and unfolded configuration. (EX1001, ¶¶406-408, 413, 45-49; *see also* EX1031, Hollie Schultz Dec., EX10, ¶¶284-285.¹⁴) Liao's drawings are detailed 3-D CAD drawings which, when enlarged, inform a POSITA Liao's upper and lower frame members are not rigid but are coupled together by a known folding mechanism so that they can rotate between a folded and unfolded configuration. (EX1001, ¶¶265,

¹⁴ Ms. Schultz's declaration (EX1031) cites "*The Baby Gizmo Buying Guide*," p.284 describing known stroller folding designs.

409-410, 414.)



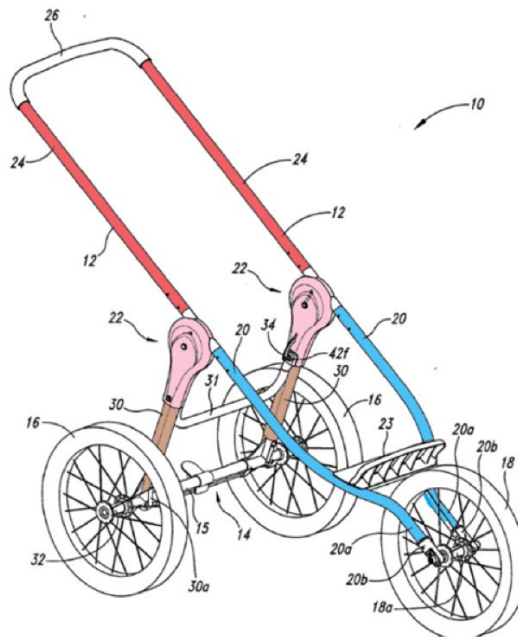
EX1048, Liao, Fig. 1 (Cropped and Annotated)

The Examiner, in the '417 Application, confirmed a POSITA's understanding finding Liao teaches, "a stroller frame ... configured for being adjusted between a folded configuration and an unfolded configuration." (EX1024, 1203; EX1001, ¶415.)

Alternatively, and to the extent it is argued Liao does not teach a foldable stroller, it would have been obvious to a POSITA to design Liao in combination with Cheng¹⁵ to include a folding mechanism. (EX1001, ¶¶416, 420.)

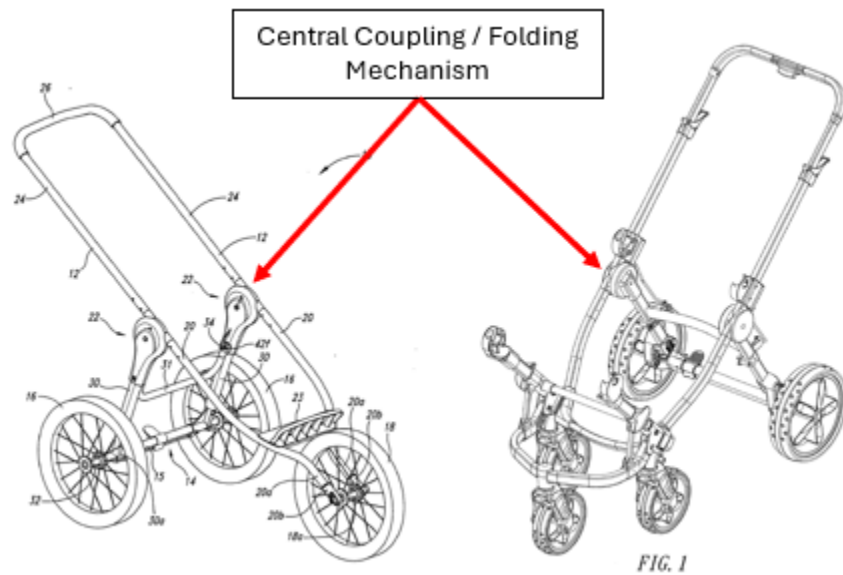
¹⁵ See Section X.B.2.

Cheng discloses a baby stroller 10 with folding mechanisms 22 (pink) coupling left/right upper tube support frames (red), left/right front wheel support frames (blue), and left/right back wheel support frames (brown). (EX1049, ¶¶0040-0042, Fig. 2; EX1001, ¶¶417-418.)



EX1049, Fig. 2

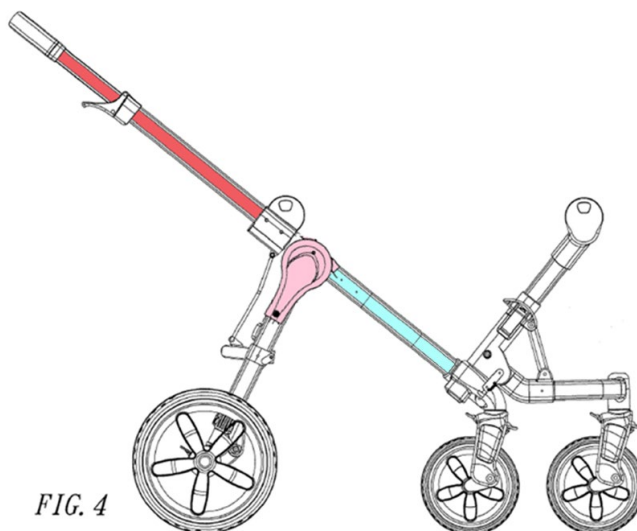
As shown below, Liao and Cheng in the unfolded position share common structural similarities in terms of baby stroller design, including the location of where the folding mechanism would be placed. (EX1001, ¶¶419, 517.)



EX1049, Fig. 2; EX1048, Fig. 1

As shown below, it would have been obvious to a POSITA that Cheng's folding assembly 22 (pink) could have been added to the frame of Liao,¹⁶ allowing the upper frame structure (red) to fold relative to the front wheel frame structure (blue). (EX1001, ¶420, 518.)

¹⁶ Assuming that Liao does not already fold.



EX1048, Liao, Fig. 4 with Cheng's folding assembly (EX1049, Fig. 5.)

Therefore, Liao alone or alternatively in view of Cheng discloses “upper tube support frames” (red) rotatably adjusted with respect to the “front wheel support frames” (blue). (EX1001, ¶¶421, 519.)

Regarding “substantially parallel,” Section VIII.A. challenges whether PO should be afforded a priority date of 2008 based on the first/second “front wheel support frame” being “substantially parallel” to the first/second “upper tube support frames.” Notwithstanding, Petitioner’s priority argument, Liao renders obvious this limitation for several reasons.

First, PO stated during prosecution that “Liao appears to have certain frame elements in a substantially parallel orientation.” (EX1019, 972.) PO’s statement during prosecution supports Petitioner’s expert that Liao renders obvious this limitation. (EX1001, ¶¶422-425.)

Second, PO asserted in district court, “a POSITA would understand two components oriented in the same direction, or approximately the same direction, would be considered parallel or substantially parallel to each other.” (EX1056, 18.) PO also stated, “Figure 8A [of the ’568 Patent] clearly shows an example of the alignment of the front wheel support frame and upper tube support frame when the frame is unfolded.” (EX1056, 18; EX1001, ¶¶426-427.)

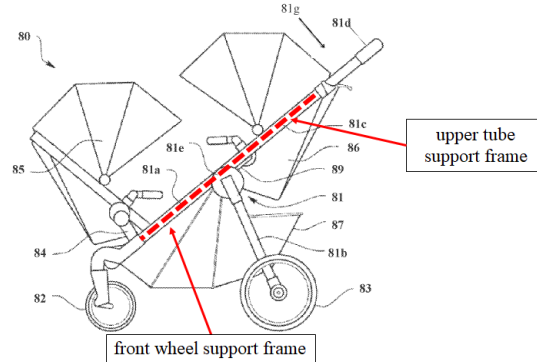


FIGURE 8A

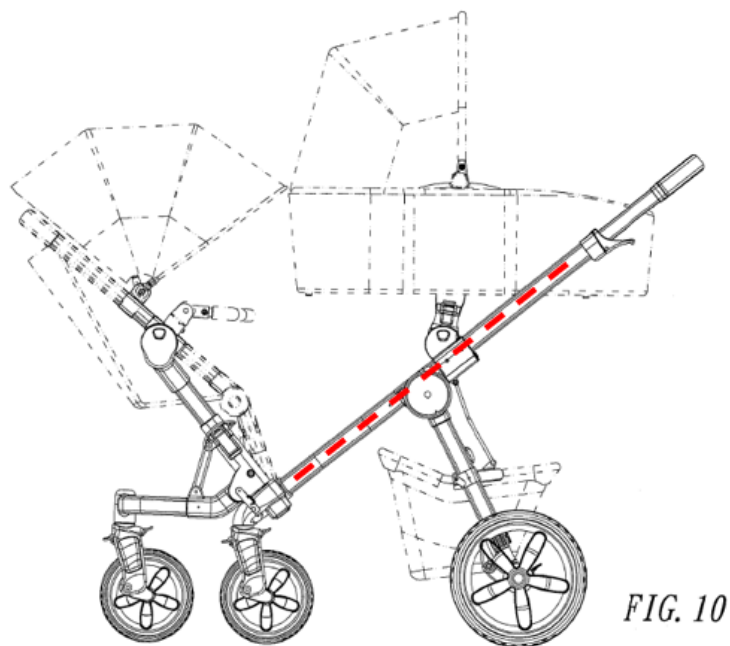
EX1009, Fig. 8A

In district court litigation, PO has alleged one of the Petitioner’s designs (while clearly collinear) satisfies this claim limitation. (EX1057, 5-6.)



EX1057, 5-6

Relying on PO's construction and assertion in district court, Liao's "front wheel support frame" would be substantially parallel with the "upper tube support frame." Indeed, Figure 10 of Liao has the same arrangement of first/second front-wheel support frames and first/second upper tube support frames which PO asserts as being "substantially parallel." (EX1056, 18; EX1001, ¶¶427-428.)



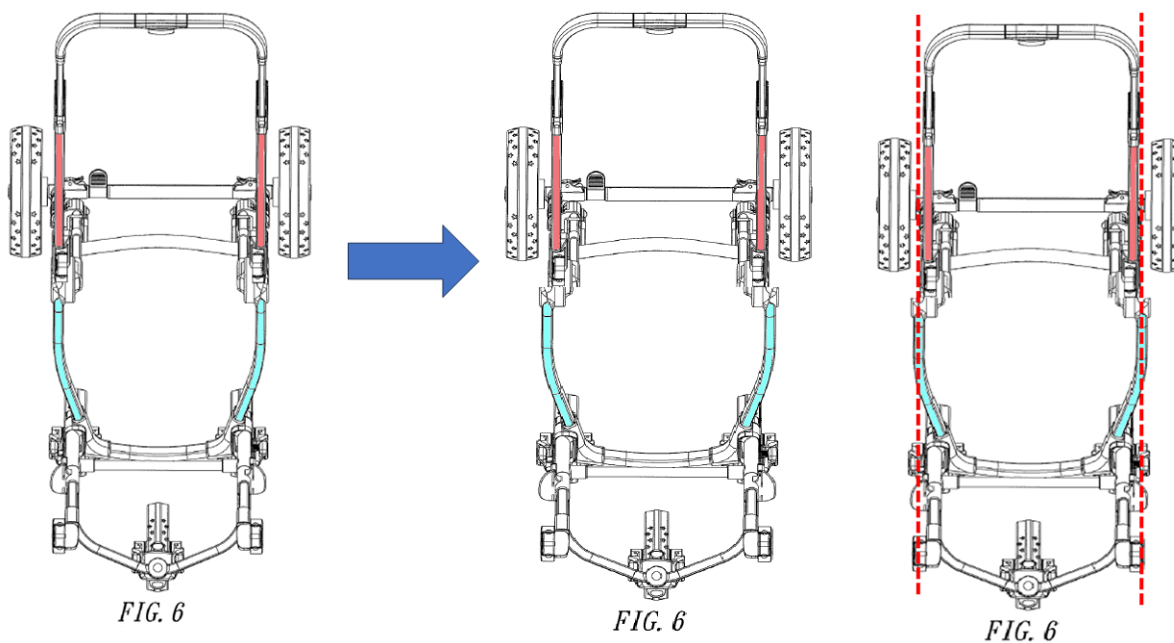
EX1009, Fig. 8A; EX1048, Fig. 10

Third, the Examiner in the '417 Application found “Liao discloses ... the handle portion¹⁷ and the front wheel support portion are substantially parallel when the stroller is in the unfolded configuration.” (EX1024, 1206.) The Examiner’s finding confirms Liao discloses this limitation as asserted by PO.

¹⁷ In this application the PO used the term “handle portion” as being the “upper tube support frame” based on language used prior to the '305 CIP filing. After the '305 CIP, PO elected to rename most of what was previously “handle portion” as the “upper tube support frame.” (EX1046, p.15, l.27 to p.16, l.10—describing “handle portion 81d,” “handle 81d” and “upper tube support frame 81c”.)

(EX1001, ¶428.)

Fourth, and to the extent PO attempts to argue Liao does not teach this limitation, a POSITA would have found it obvious to modify Liao such that front wheel support frame is “substantially parallel” to the upper tube support frame.



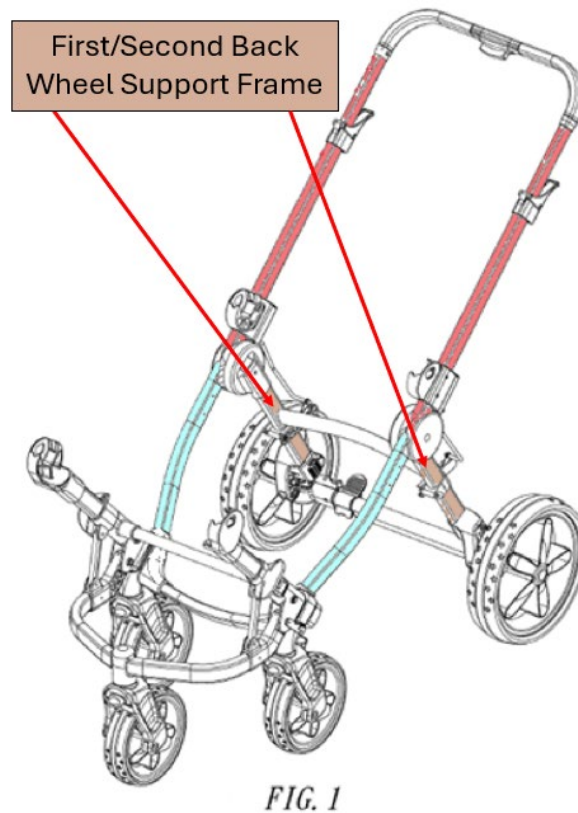
The motivation to implement this modification aligns with established design principles and known objectives in the stroller art, such as improving ergonomics, aesthetics, or spatial configuration. (EX1001, ¶429.) *KSR* confirms that when a design need or market pressure exists, and there are a finite number of identified, predictable solutions, applying known techniques to improve similar devices is likely to be obvious. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 and 421 (2007).. Here, offsetting the front and upper frame members would not

compromise the stroller's foldability or function and may allow greater flexibility in seat positioning or visual appeal. (EX1001, ¶429.) A POSITA would have had a reasonable expectation of success in implementing the offset while maintaining all essential performance characteristics, given the structure and folding mechanisms remain essentially unchanged. *Id.*

EX1048, Liao, Fig. 6 (Annotated)

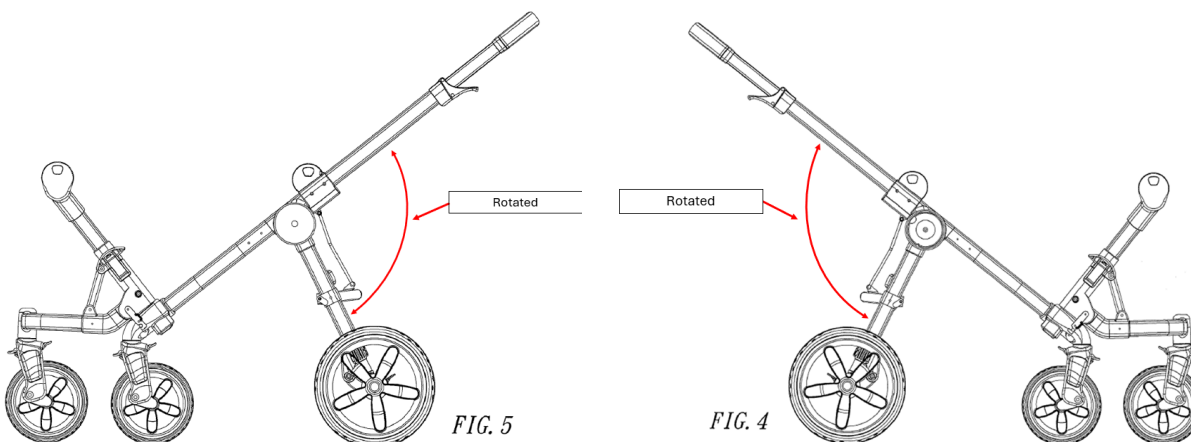
d. [1.4] / [1.5]

Liao teaches first/second “back wheel support frames” (brown). (EX1001, ¶430.)



EX1048, Fig. 1

A POSITA would have further understood the first/second “back wheel support frames” are “rotated” with respect to the first/second upper tube support frames (red) (EX1001, ¶¶431-432.)



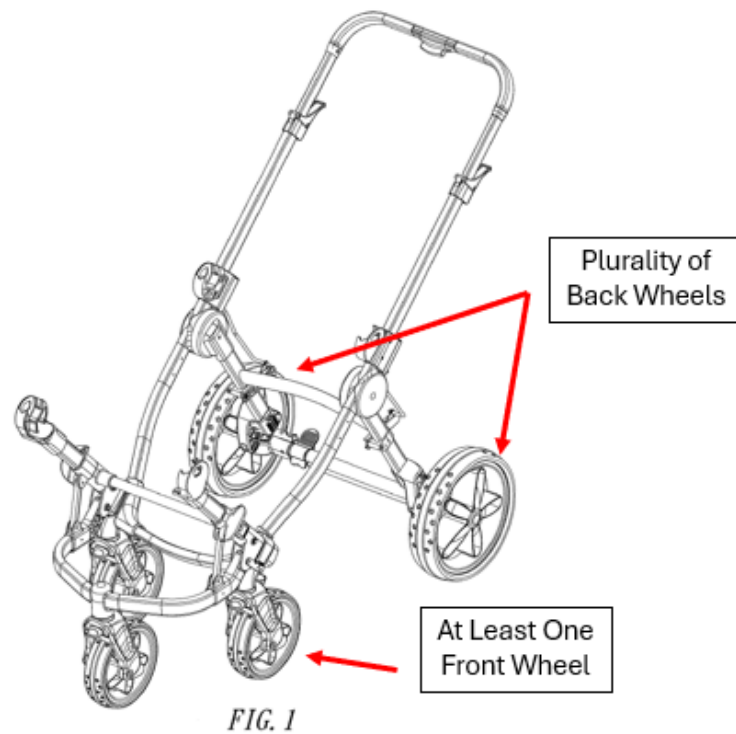
EX1048, Figs. 4, 5

To the extent required, the folding mechanisms allow “back wheel support frames” to fold for transportation or storage. (EX1001, ¶¶433, 405-409, 45-49.)

The Examiner also found in the '417 Application “Liao discloses ... a stroller frame ... configured for being adjusted between a folded configuration and an unfolded configuration ..., the stroller frame comprising: ... a back wheel support portion[.]”. (EX1024, 1203.) A POSITA would have understood the Examiner’s rejection as confirming Liao teaches a back wheel support frame capable of being rotated with respect to the upper tube support frame. (EX1001, ¶434.)

e. [1.6]

Liao illustrates “at least one front wheel” and a “plurality of back wheels.” (EX1001, ¶436.)



EX1048, Fig. 1

In the '417 Application the Examiner found, confirming a POSITA's understanding, that "Liao discloses: ... at least one front wheel ... [and] two rear wheels[.]" (EX1024, 1203; EX1001, ¶437.)

f. [1.7]

Liao teaches attaching various seats to the upper frames (red) using two connectors. (EX1048, Fig. 1; EX1001, ¶¶439-440.)

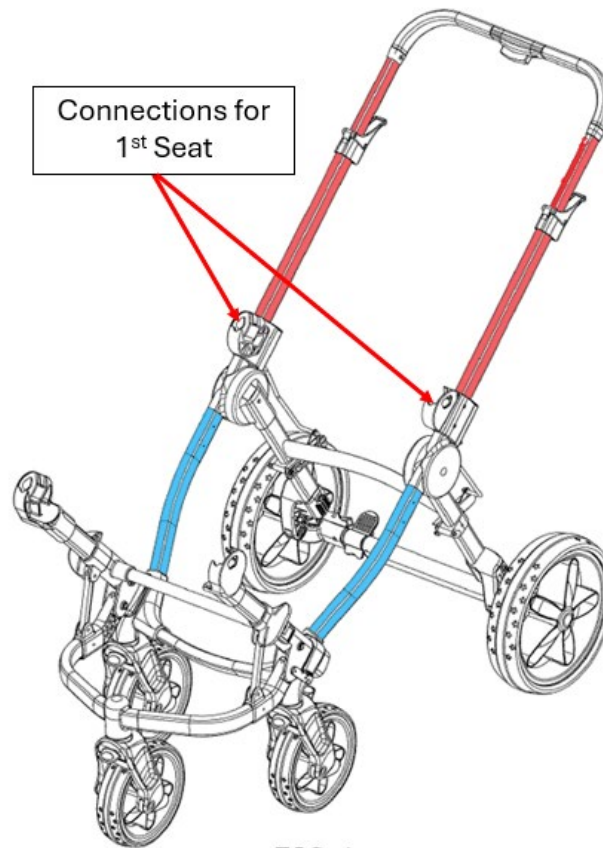
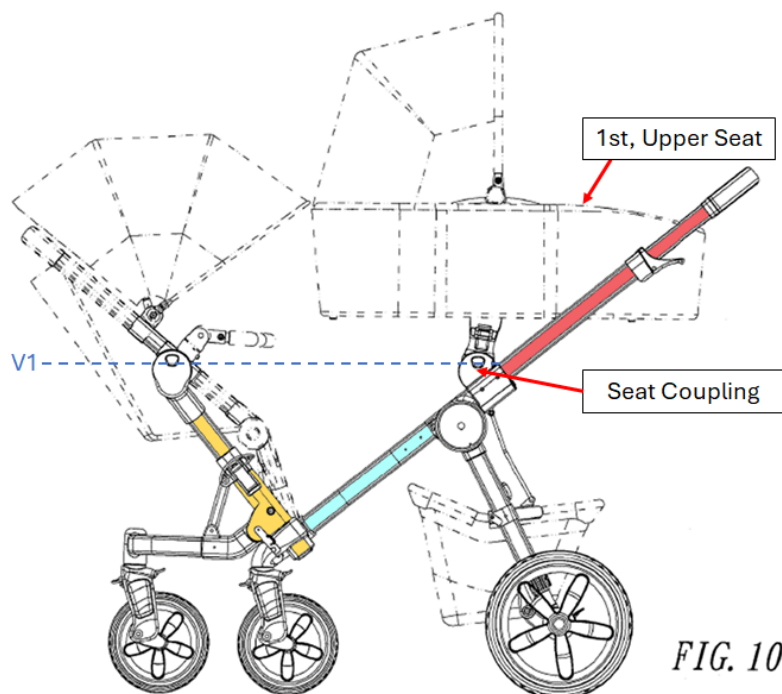


FIG. 1

EX1048, Fig. 1

Figures 8-13 of Liao illustrate various infant seats that can be “coupled along” Liao’s upper frame using the upper seat connectors. For instance, Figure 10 illustrates a bassinet “coupled along” the upper frames (red) at a first vertical position (V1). (EX1048, Fig. 10; EX1001, ¶¶440.)

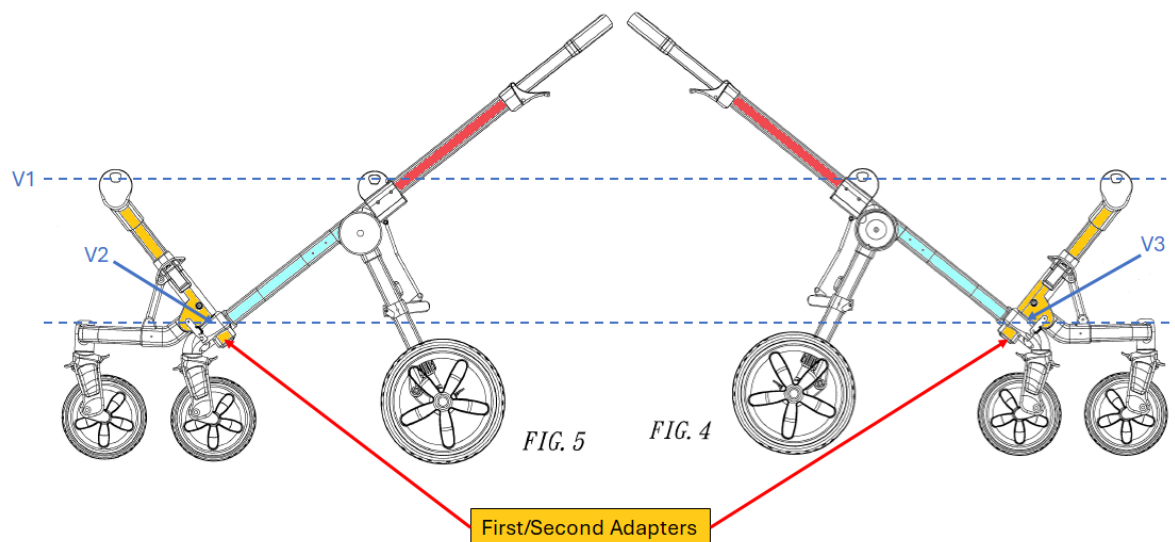


EX1048, Fig. 10

During prosecution of the related '417 Application, the Examiner found Liao taught a “first seat” removably attached to “seat attachment portions” located adjacent the “handle portion” (*i.e.*, the upper tube support frames). (EX1024, 1203; EX1001, ¶441.)

g. [1.8] / [1.9]

Liao discloses first/second “seat attachment adapters” (gold) coupled to the first front wheel support frame (blue) at a second vertical position (V2) of the stroller frame that is below the first vertical position (V1). (EX1048, Figs. 4-5; EX1001, ¶¶443-446, 453.)



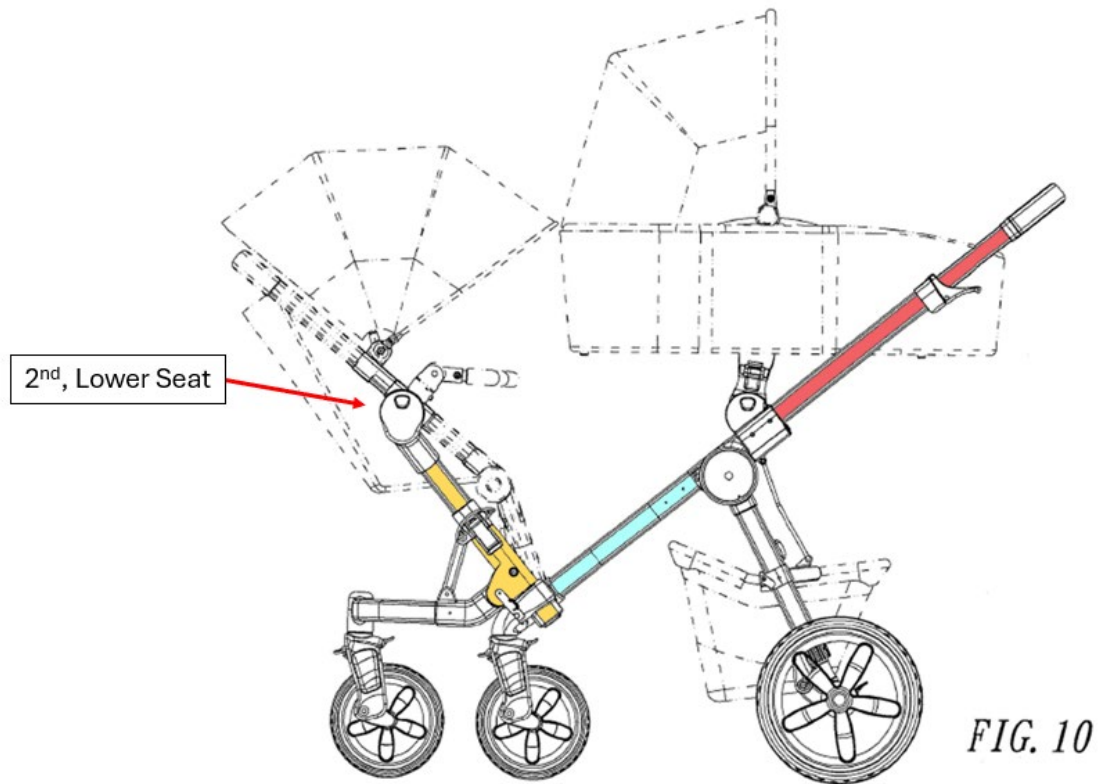
EX1048, Figs. 4, 5

During prosecution of the '568 Patent, the Examiner confirmed Liao teaches a “stroller seat design to provide seat attachment adapters coupled to the front wheel support frame of the stroller.” (EX1019, 559.) Also, in the related '417 Application, the Examiner similarly found “Liao discloses ... one or more seat attachment portions removably attached to the stroller frame’s front wheel support portion[.]” (EX1024, 1204.) A POSITA would understand the Examiner’s findings as confirming their understanding that Liao teaches the recited limitations. (EX1001, ¶¶447-451, 454.)

h. [1.10]

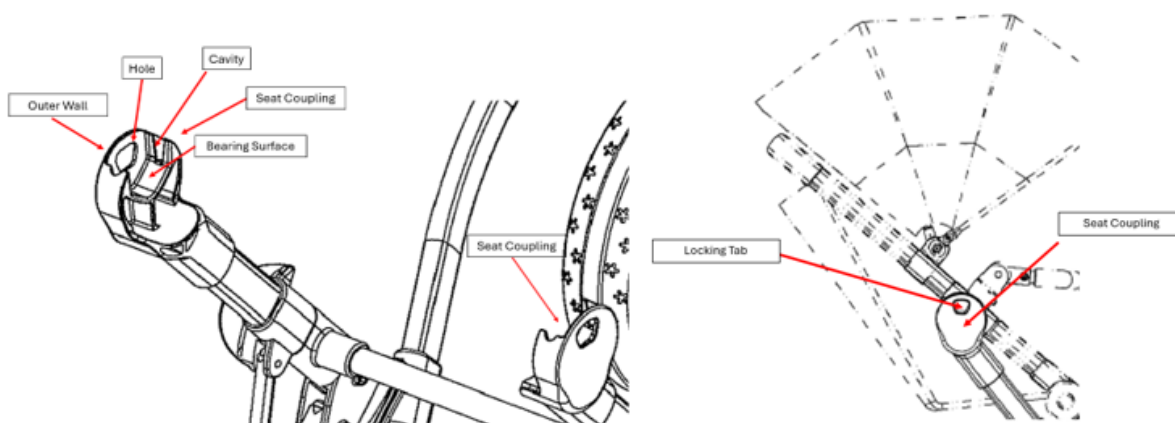
Liao shows a lower seat (“second seat”) coupled to the upper ends of the previously identified first/second “seat attachment adapters” (gold). (EX1001,

¶456.)



EX1048, Fig. 10

A POSITA would understand from Liao's detailed engineering drawings, that the lower "second seat" is "removably coupled" to the first/second "seat attachment adapter." (EX1001, ¶456.)



EX1048, Liao, Figs. 1, 10

During prosecution of the '568 Patent, the Examiner relied on Liao as part of a three-way combination in rejecting the pending claim 1.¹⁸ (EX1019, 723.) The Examiner argued Liao's teachings of "seat attachment adapters" coupled to the front wheel support frame was known and obvious. (EX1019, 724-725.)

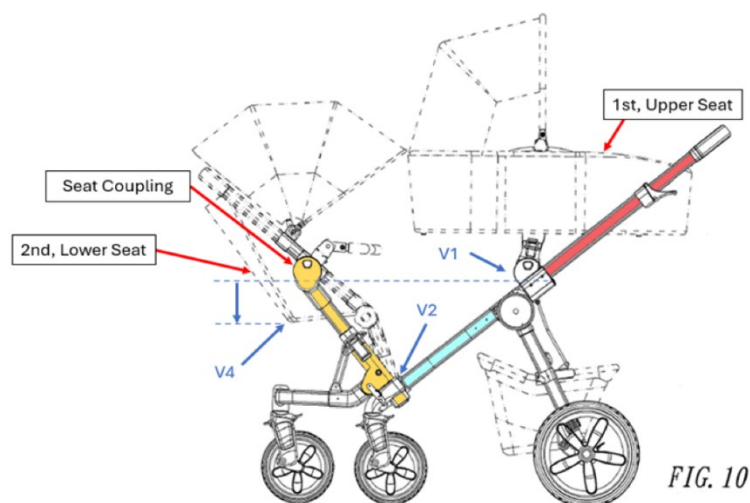
Although Liao was not the primary reference relied upon by the Examiner, PO later stated: "Liao appears to only show seats in a relatively level orientation with each other, wherein one seat is not higher than the other seat[.]" (EX1019, 972.) While the pending claims were allowed, there is no indication the Examiner relied on PO's argument suggesting what Liao teaches. Furthermore, a POSITA would not agree with PO's argument. (EX1001, ¶¶457-458.)

¹⁸ The Examiner did not rely on Liao in rejecting claim 17. (EX1019, 719.)

Regardless, the same Examiner in the later-filed '417 Application¹⁹ rejected claims like limitation [1.10] as being anticipated by Liao alone. (EX1024, 1203-1205.) The same Examiner found “Liao discloses the first seat is configured for being removably attached to the stroller frame at a first vertical position ... and the second seat is configured to be removably coupled at a second vertical position that is below the first vertical position.” (EX1024, 1205–Claim 17; EX1001, ¶459.) The Examiner’s recent rejection confirms a POSITA’s understanding that Liao satisfies the vertical positioning claimed by limitation [1.10]. (EX1001, ¶460.)

A POSITA would understand Liao teaches various child seats that could be coupled to the stroller frame which could—and does—vary the height between the first and second seats. (EX1001, ¶461.) Indeed, as shown by the configuration illustrated by Figure 10, a POSITA would understand Liao teaches a “second seat” positioned at a fourth vertical position (V4) that is below V1. (EX1001, ¶¶461-462.)

¹⁹ The Examiner in the '417 Application (James Dolak) was the Examiner for the '568 Patent. (EX1024, ¶1207; EX1019, 737.)



EX1048, Liao, Fig. 10

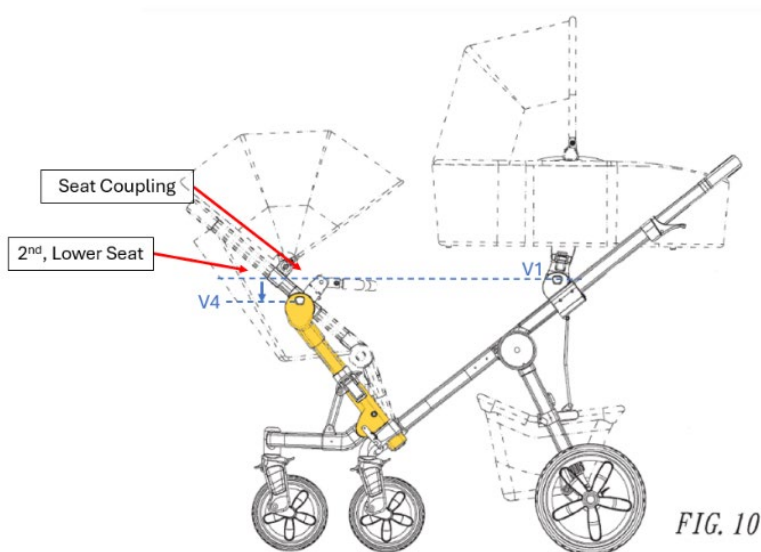
A POSITA would understand where the second seat is “positioned” references where the child’s buttocks are positioned.²⁰ A POSITA would not interpret the seat “position” as being the coupling location. (EX1001, ¶462.)

If the PO attempts to argue limitation [1.10], it should be in reference to the positioning between the upper and lower connection points, Liao would still render the claim obvious for several reasons. First, a POSITA would understand that Liao’s upper couplings are mounted on a stability brace attached to the rear wheel support frame. (EX1001, ¶463.) A POSITA would recognize these couplings can

²⁰ This limitation states the fourth vertical position is the “position [of] the second seat.” The fourth position could therefore be lower or above the location where the second seat couples to the attachment adapters.

be adjusted upward along the upper support frames which would elevate the “first vertical position” above the “fourth vertical position,” while maintaining structural support through the brace. (EX1001, ¶464.)

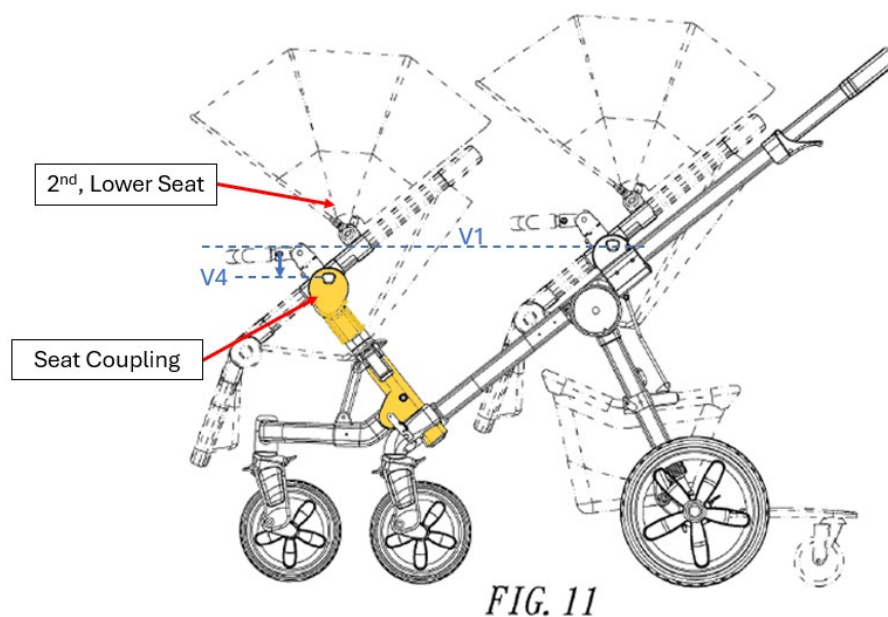
A POSITA would have found it obvious to modify Liao’s design such that the coupling was extended upward. A POSITA would have found the modification an obvious design choice given Liao already includes a stability brace mechanism for distributing the weight of the upper seat onto the back wheel support frame. (EX1001, ¶464.) A POSITA would understand moving the coupling point up slightly would provide even greater offset between the seats, thus further enhancing the viewing angle of the infant located in the second seat. (EX1001, ¶¶464, 75-81, 86-92.)



Liao, EX1048, Fig. 10 (Modified)

Alternatively, a POSITA would have understood that Liao’s front adapters

(gold) could be shortened without compromising stability or function. This would lower the front seat couplings below the rear ones. A POSITA would have been motivated to do so to improve the stroller's center of gravity, reduce torque at the housing connection, and again enhance visibility for the upper seat. Such a dimensional change would have been a routine design choice. Either modification would place the “fourth vertical position” below the “first,” satisfying limitation [1.10]. (EX1001, ¶465.)



Liao, EX1048, Fig. 11 (Modified)

Whether Liao is modified, or left unmodified, the first and second adapters would remain at the same vertical height. As a result, the second and third vertical positions—where these adapters couple to the front wheel support frames—would

also remain aligned. (EX1001, ¶466.)

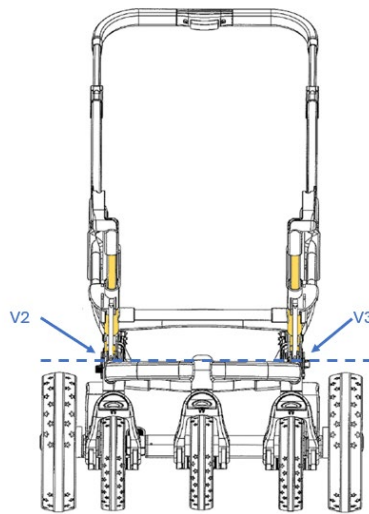
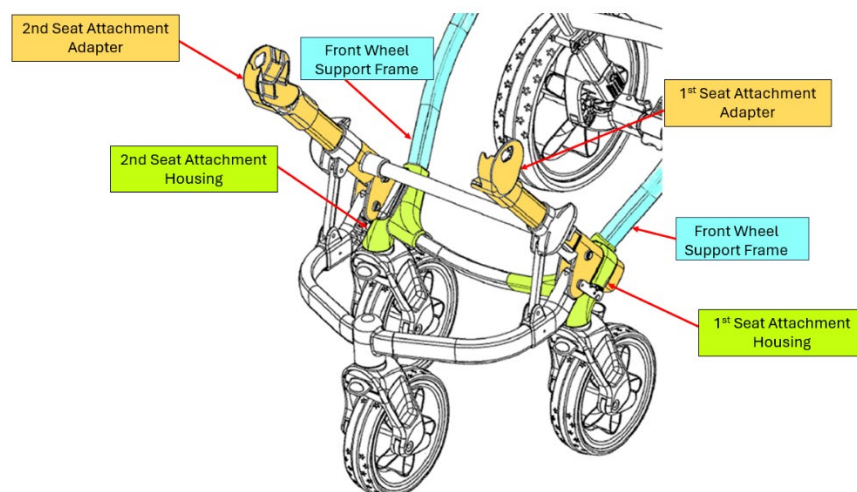


FIG. 2

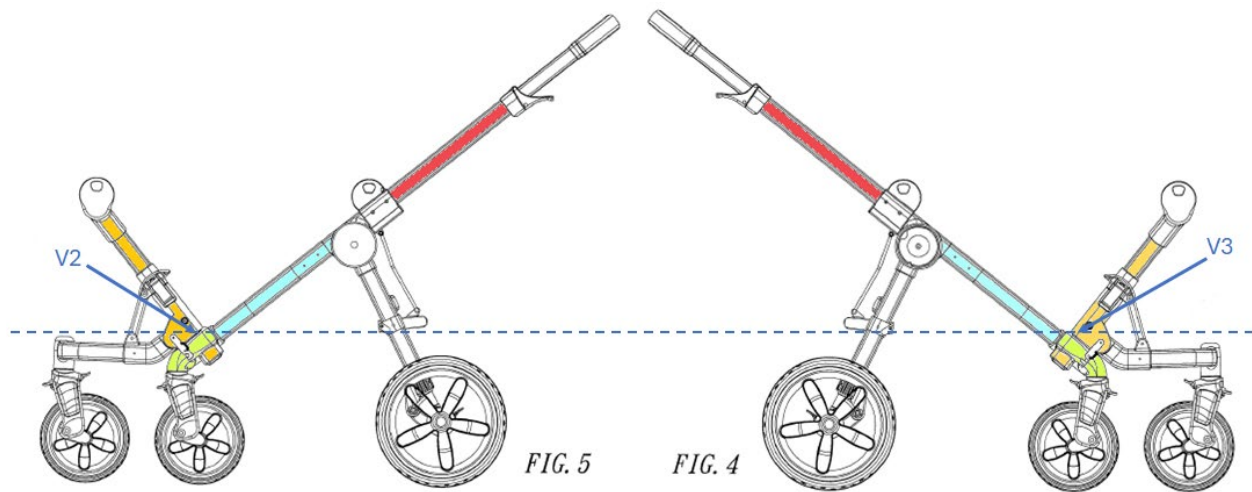
EX1048, Liao, Fig. 2 (Annotated)

2. Claim 2

Liao teaches first/second “seat attachment housings” (green) coupled to and therefore “disposed adjacent” the first/second “front wheel support frames” (blue) at the second/third “vertical positions.” (EX1001, ¶468.)

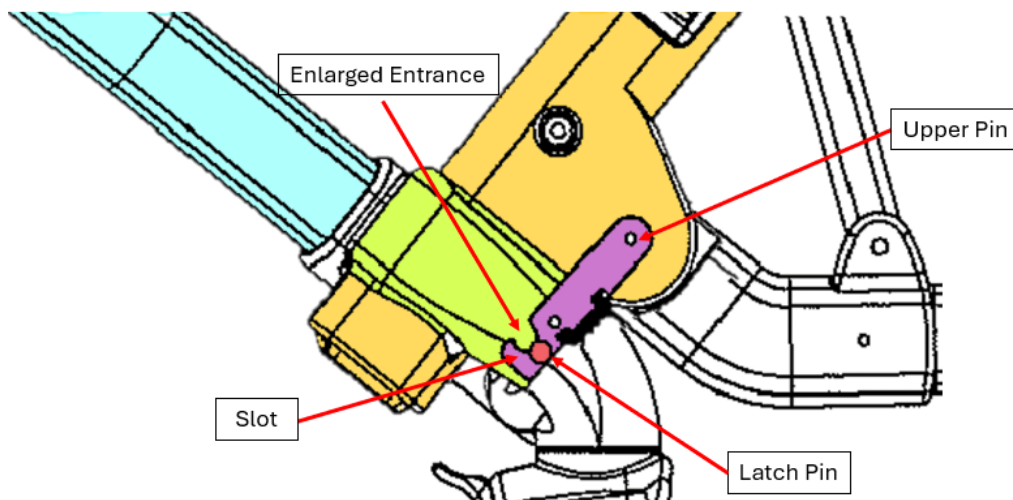


EX1048, Fig. 1



EX1048, Figs. 4-5

As Liao's drawings (enlarged below) show, a POSITA would have understood each "seat attachment adapter" (gold) has a latch (purple) which allows it to be coupled to the corresponding "housing" (green) when engaged with the latch pin (red). Thus, the "adapters" are removably coupled to the " housings" by inserting/removing the ends of the "adapters" from the " housings" and locking/unlocking the latches. (EX1001, ¶469.)



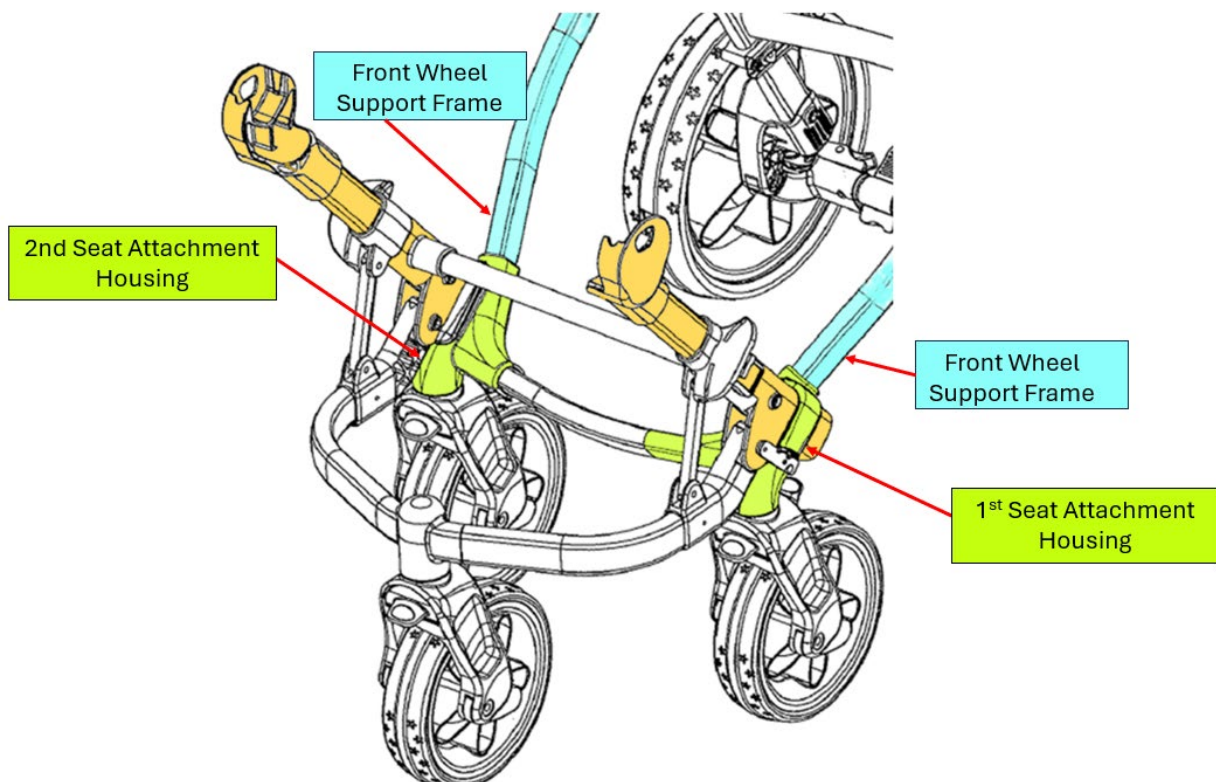
EX1048, Liao, Fig. 4 (Cropped and Annotated)

In the '417 Application, the Examiner found Liao taught removable seat attachment portions (adapters) attached to Liao's front wheel support portion. (EX1024, 1203-1205.) The PO amended the pending claims to overcome Liao by requiring a "direct" connection between the adapter ("seat attachment portion") and the stroller frame. (EX1024, 1389-1392.) PO then argued the attachment adapter of Liao does not satisfy the amended claims because it is "coupled to a separate discrete component that is coupled to the frontmost front wheels." (EX1024, 1394.) A POSITA would understand that PO was clarifying that Liao's "separate discrete component" is a housing to which the adapter is coupled. (EX1001, ¶¶470-471.)

3. Claim 3

Claim 3 requires the housings "extend into" the front wheel frames. Liao illustrates connections that a POSITA would understand as the "housings"

receiving the “front wheel frames”—*i.e.*, the front wheel frames extend into the housings. (EX1001, ¶¶473-474.)



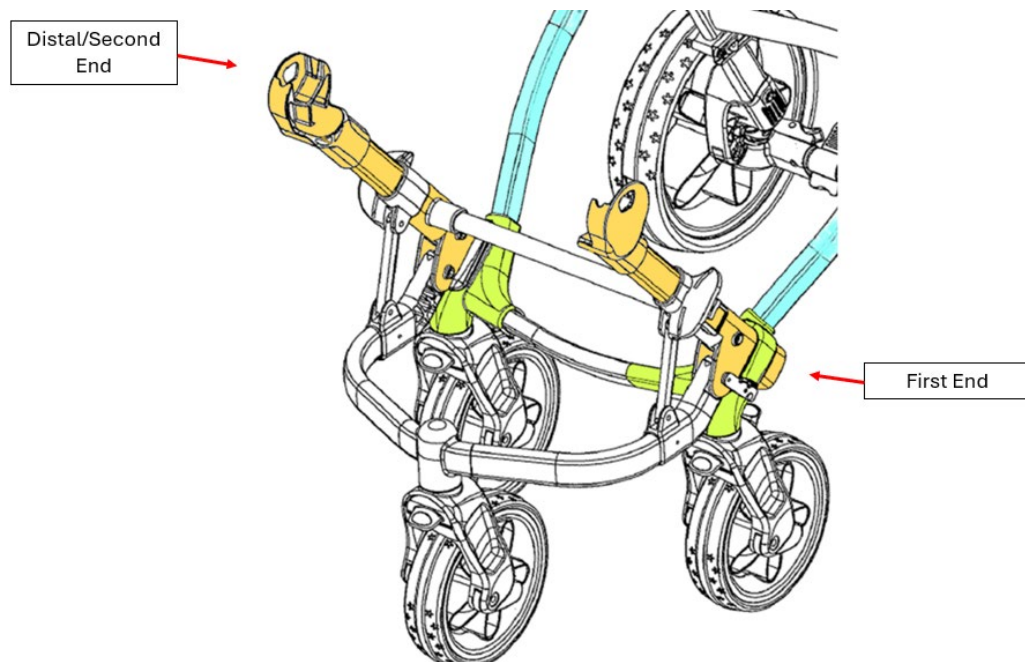
EX1048, Fig. 1

However, a POSITA also understands there are only two options for the recited connection and it would have been an obvious design choice to switch the male and female components. For example, a POSITA would have understood how to form stubs on the “housings” receivable within the “front wheel frames,” which would disclose the telescopic connection of claim 3. (EX1001, ¶¶475-476.)

4. Claim 4

Liao discloses the first/second “seat attachment adapters” include a “first

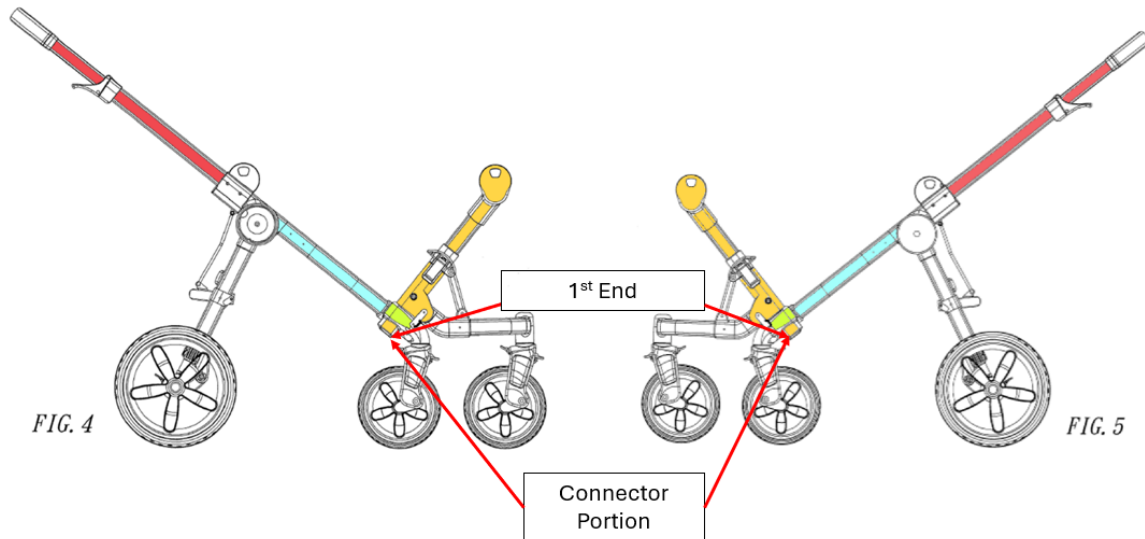
end and a distal second end.” (EX1001, ¶478.)



EX1048, Fig. 1

5. Claim 5

The first ends of the adapters (gold) are received within the housings (green). A POSITA would understand the connector portions extend through the “housings” to secure the adapter to the stroller frame. (EX1001, ¶480.)



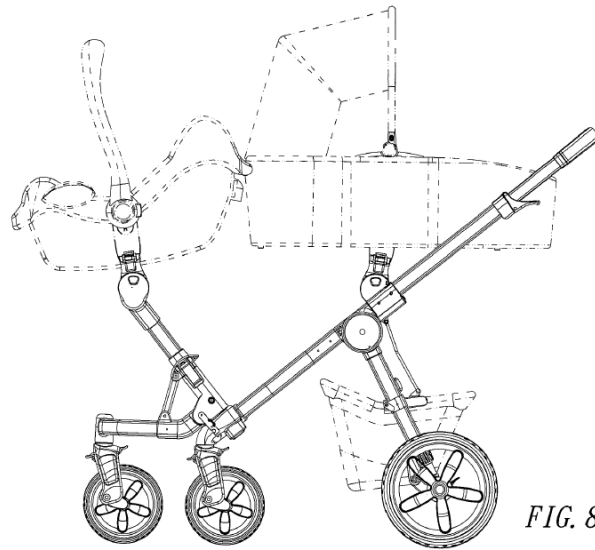
EX1048, Figs. 4 and 5

6. Claim 6

As discussed in [1.10], Liao discloses the second seat is removably connected to the second end of the adapters. (EX1048, Figs. 1, 8-13; EX1001, ¶¶456-466, 482.) The Examiner in the '417 Application also found “Liao discloses ... one or more seat attachment portions [i.e., adapters] each compris[ing] a seat connector configured for connecting to the second seat.” (EX1024, 1205–Claim 9.) (EX1001, ¶483.)

7. Claim 7

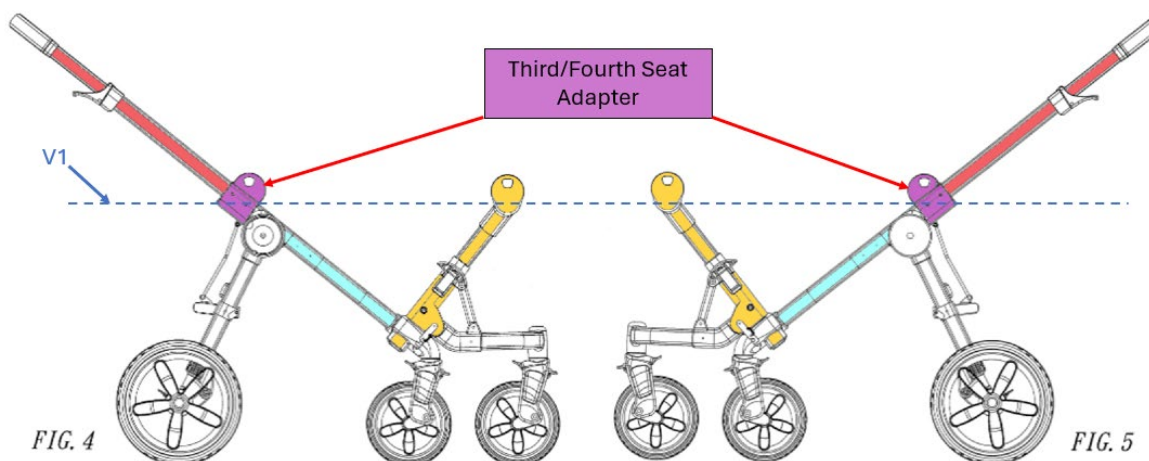
Liao discloses many different types of infant seats that may be connected to the stroller. Figure 8 illustrates “a bassinet” as the first seat and an “infant/baby carrier” as the second seat. (EX1048, Figs. 8-13; EX1001, 484-486.)



EX1048, Fig. 8

8. Claim 8

As discussed in [1.7], Liao also discloses “third/fourth seat attachment adapters” (purple) for coupling the first, upper seat to the stroller. The “third/fourth seat adapters” are coupled along the upper tube support frames (red) at the first vertical position (V1). (EX1048, Fig. 1; EX1001, ¶¶439-441.) A POSITA would have understood in reviewing Liao Figs. 8-13, the third/fourth attachment adapters function to allow the first seat to be removably coupled. (*Id.*, ¶¶488-489.)¶



EX1048, Figs. 4 and 5

In the '417 Application, the Examiner found “Liao discloses ... the first seat is removably attached to the one or more second seat attachment portions [i.e., adapters].” (EX1024, 1205–Claim 10; EX1001, ¶441.) The Examiner also found “Liao discloses ... the first seat is configured for being removably attached to the stroller frame at a first vertical position[.]” (EX1024, 1205–Claim 15.) A POSITA would have understood the Examiner’s rejection confirms Liao teaches the limitations recited by claim 8. (EX1001, ¶¶490-492.)

9. Claim 9

Liao discloses a “handle” (orange) comprising “a first end” and a “distal second end” coupled to the first/second upper tube support frame. (EX1001, ¶494.)

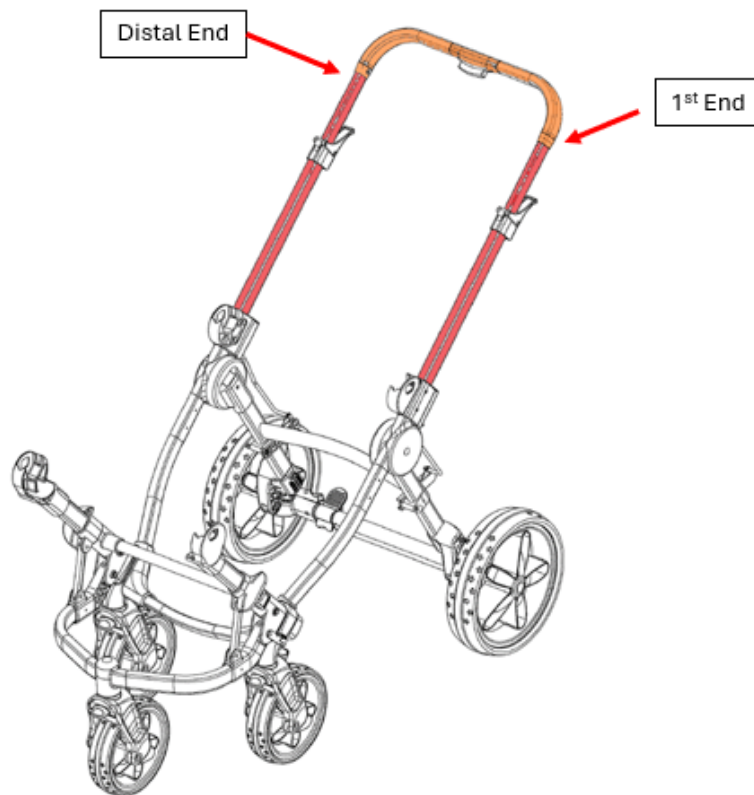


FIG. 1

EX1048, Fig. 1

10. Claim 17

a. [17.0]

See [1.0]. (EX1001, ¶¶392-398, 496.)

b. [17.1]

See [1.1]. (EX1001, ¶¶400-401, 497.)

c. [17.2] / [17.3]

See [1.4]-[1.5]. (EX1001, ¶¶430-434, 498-499.)

d. [17.4] / [17.5]

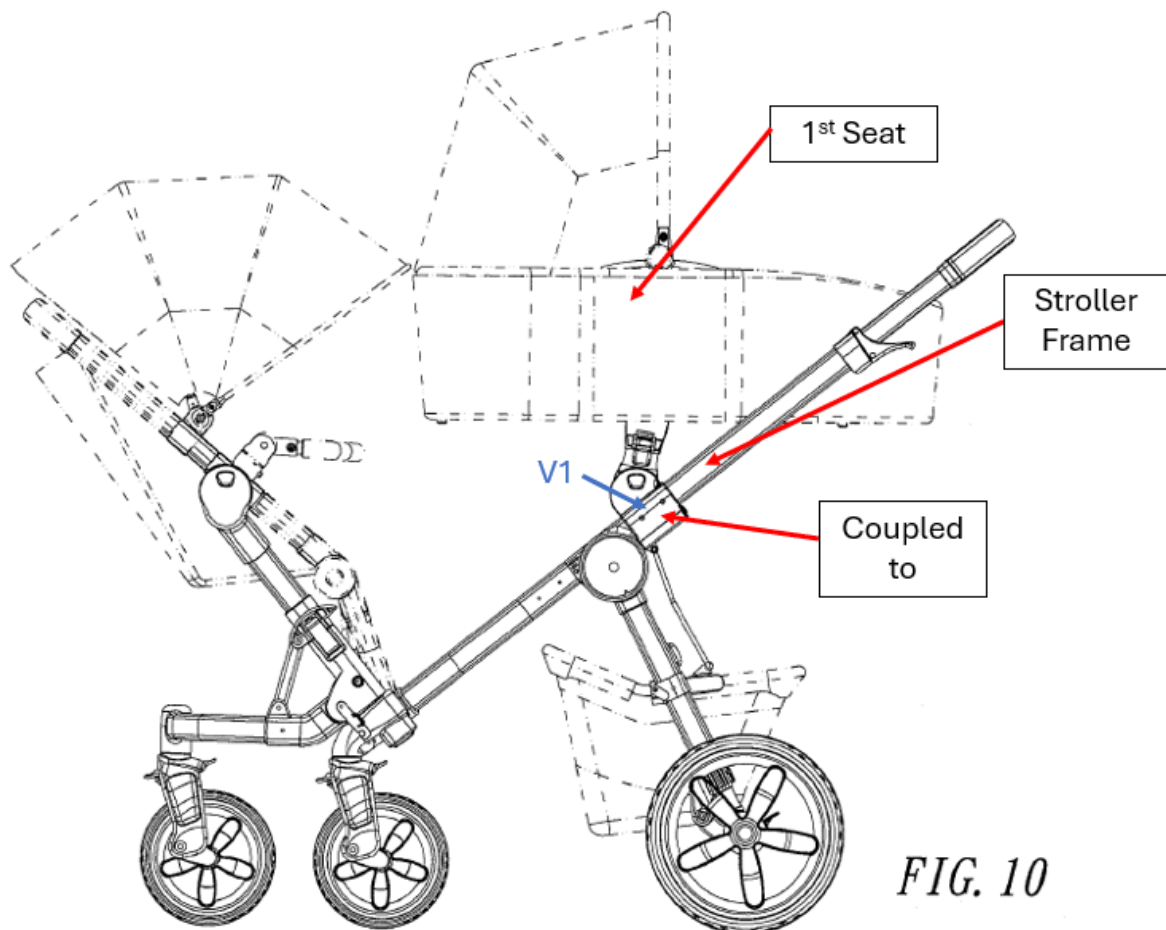
See [1.2]-[1.3]. (EX1001, ¶¶403-429, 500-501.)

e. [17.6]

See [1.6]. (EX1001, ¶¶436-437, 502.)

f. [17.7]

Claim limitation [17.7] is similar to claim limitation [1.7] and that analysis is incorporated herein. Liao discloses “a first seat is coupled to the stroller frame at a first vertical position of the stroller frame.” (EX1001, ¶¶439-441, 503-504.)



EX1048, FIG. 10

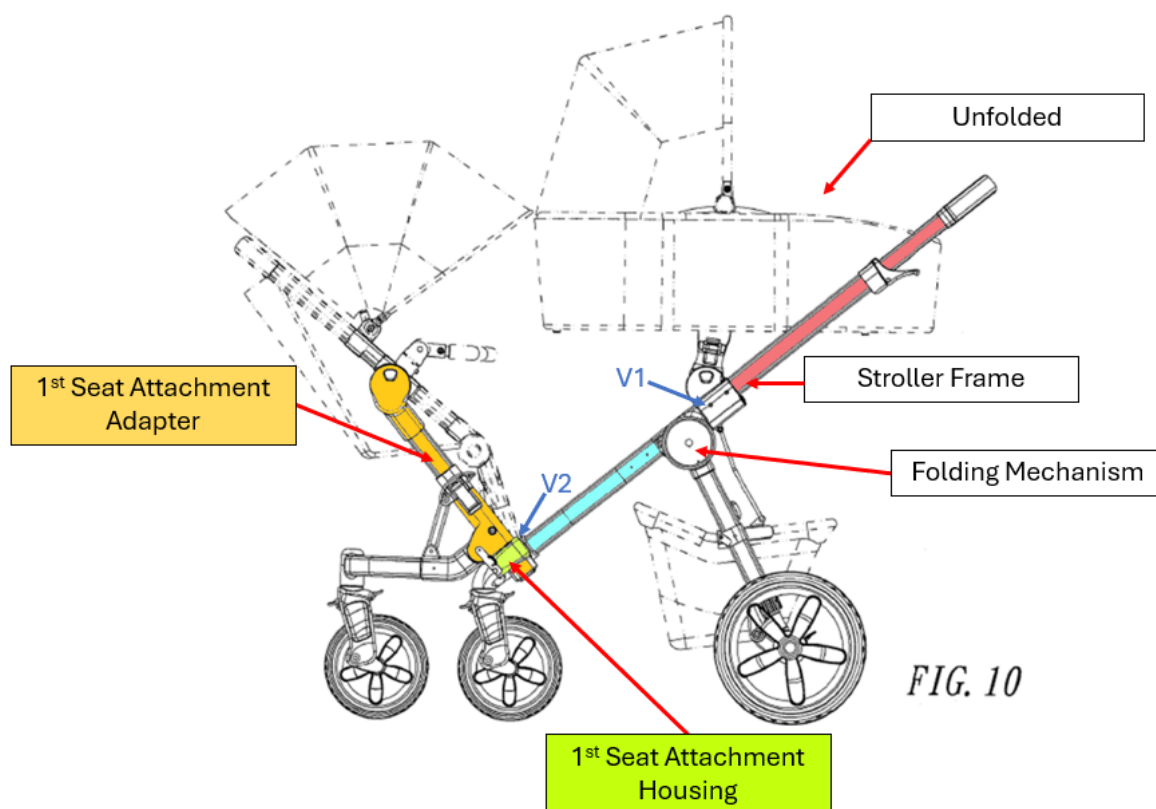
g. [17.8] / [17.9]

See [2.0]. (EX1001, 468-471, 505.)

h. [17.10]

This limitation is similar to limitations [1.2]-[1.3], [1.8], and 2, and that discussion is incorporated here. (EX1001, ¶¶403-429, 443-451, 468-472, 506-507.)

Liao discloses “a first seat attachment adapter [(gold)] coupled to the first seat attachment housing [(green)] at a second vertical position [(V2)] of the stroller frame that is below the first vertical position [(V1)]” as shown below. (EX1001, ¶508.)



EX1048, Liao, FIG. 10

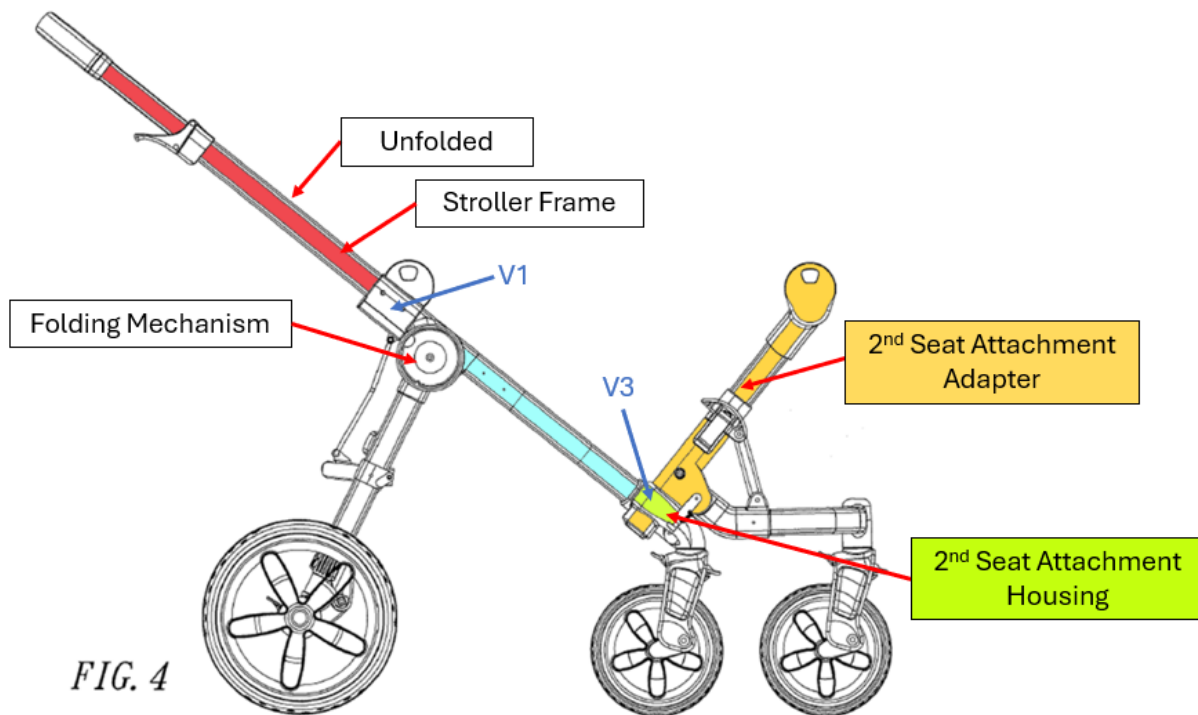
Liao further discloses “the first upper tube support frame [(red)] is

substantially parallel with the first front wheel support frame [(blue)] when the stroller frame is unfolded from a folded configuration” as shown above. (EX1001, ¶508.)

i. [17.11]

The pushchair of Liao is symmetrical; therefore, claim limitation [17.11] is disclosed for the same reasons discussed in claim limitation [17.10] and for the reasons discussed in [1.2]–[1.3], [1.8], [1.9] and [2.0]. (EX1001, ¶¶403-429, 443-454, 468-472, 509.)

As shown below, Liao discloses “a second seat attachment adapter [(gold)] coupled to the second seat attachment housing [(green)] at a third vertical position [(V3)] of the stroller frame that is below the first vertical position [(V1)] when the second upper tube support frame [(red)] is substantially parallel with the second front wheel support frame [(blue)] when the stroller frame is unfolded from a folded configuration.” (EX1001, ¶509.)



EX1048, FIG. 4

j. [17.12]

See [1.7]. (EX1001, ¶¶439-442, 510.)

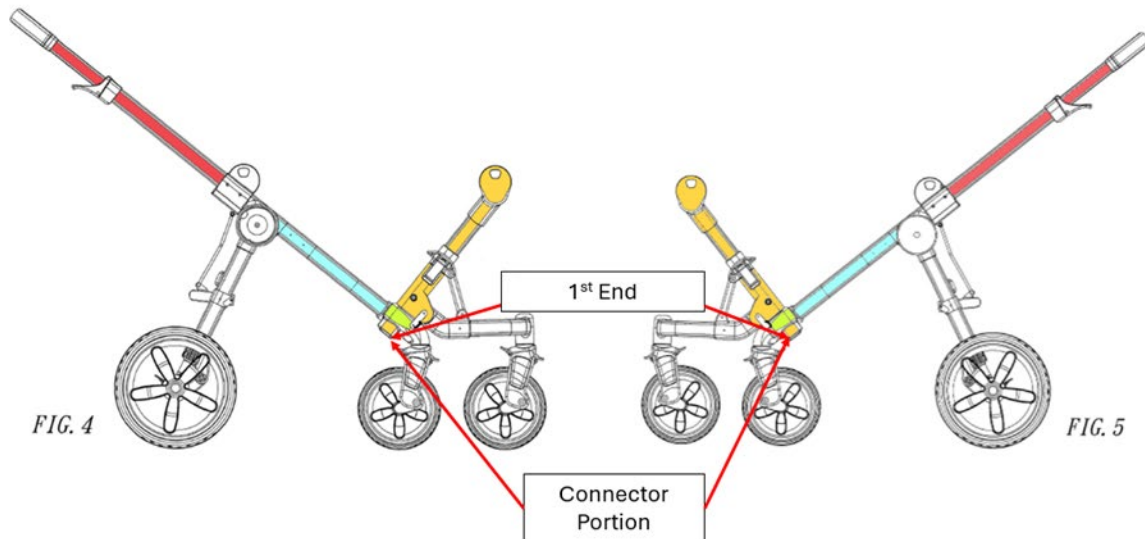
k. Limitation [17.13]

See [1.10]. (EX1001, ¶¶ 456-467, 511.)

11. Claim 18

Claim 18 is similar to claim limitations [1.8]-[1.10], [4.0]–[5.0], which is incorporated herein. (EX1001, ¶¶443-456, 478-481, 512-513.) As previously discussed (and shown below), Liao discloses “first/second seat attachment adapters” (gold) that comprise first ends having connector portions coupled to the first/second seat attachment housings and distal second ends that removably couple

with the second seat.



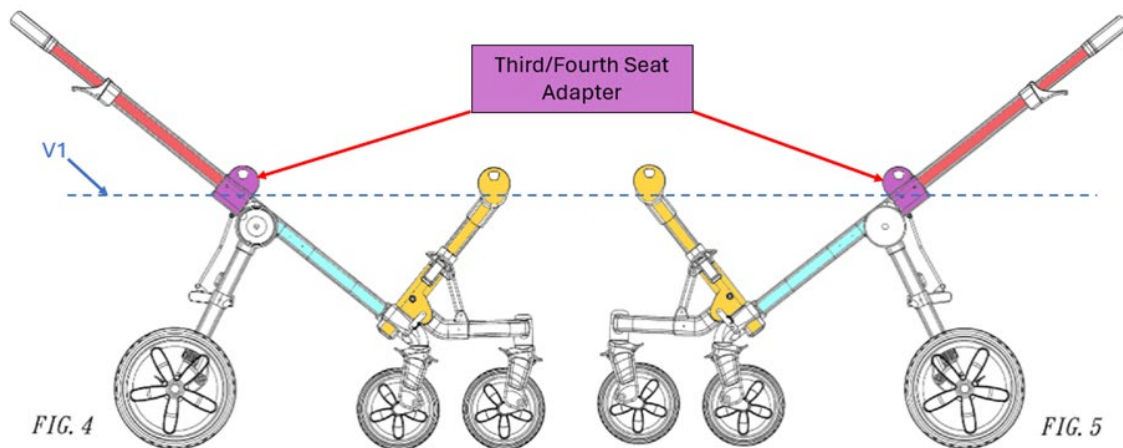
EX1048, Liao, FIGS. 4 and 5

12. Claim 19

See [9.0]. (EX1001, ¶¶494-495, 514.)

13. Claim 20

Claim 20 is obvious for the same reasons as claim limitation [8.0]-[8.1]. (EX1001, ¶¶488-493, 515-516.) Claim 20 slightly differs by explicitly requiring the third and fourth seat attachment adapters are coupled to the first and second upper tube support frames (as opposed to the “stroller frame” generally); however, Liao discloses that “the third seat ... and fourth seat attachment adapter[s]” (purple) are “coupled to the first ... and second upper tube support frame[s]” (red).



EX1048, FIGS. 4 and 5

C. Ground 3 – Claims 1-9 and 17-20 are unpatentable as being obvious in view of Hsia and Hsia '902

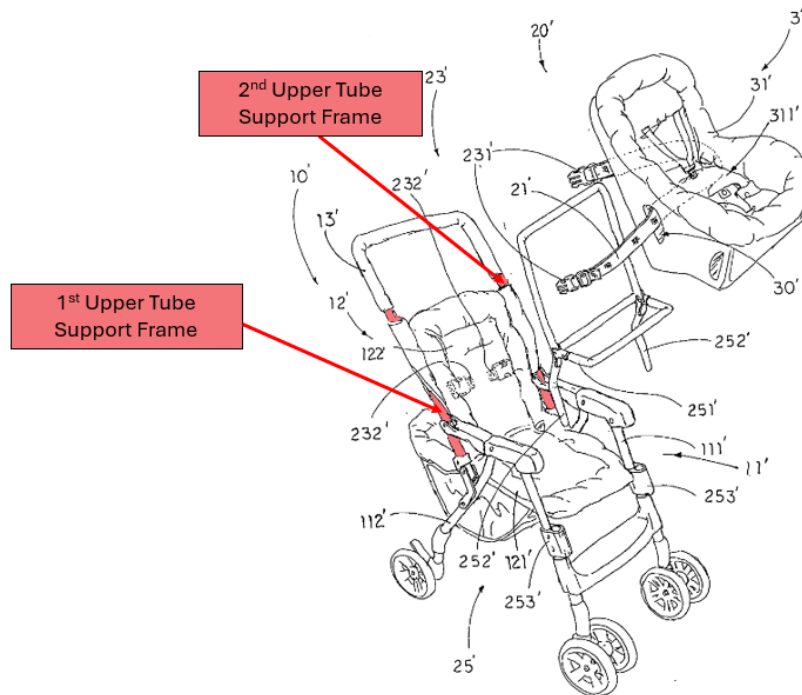
1. Claim 1

a. [1.0]

Hsia is titled “[s]troller with car seat fastening arrangement[.]” (EX1050, 2:39-42, Fig. 4; EX1001, ¶523-524.)

b. [1.1]

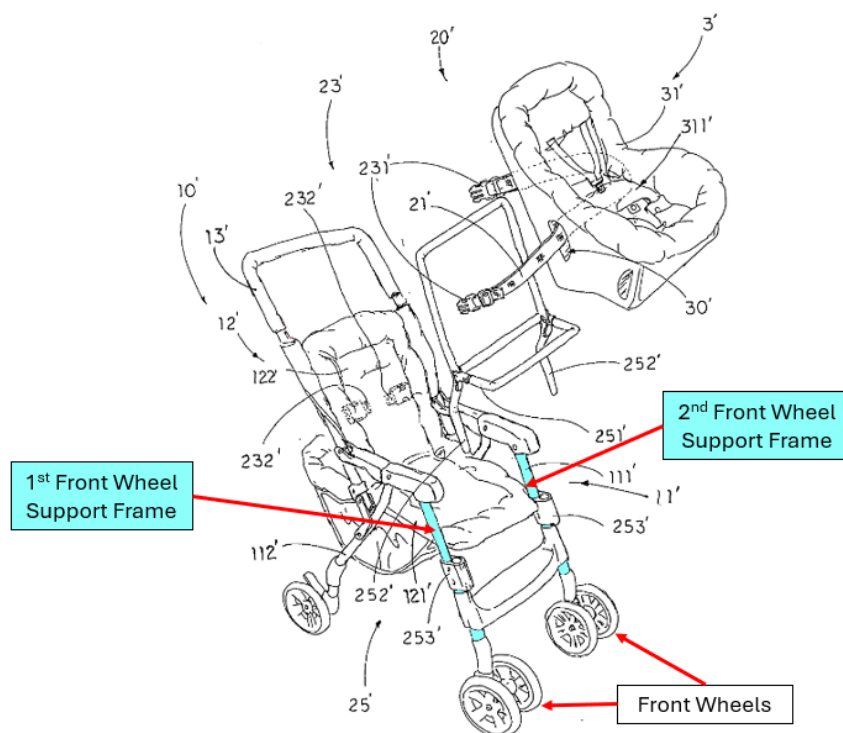
Hsia’s “stroller frame 11” includes two diagonally angled frame members (red) which a POSITA understands as being the first/second “upper tube support frame[s].” (EX1050, 4:32-38, Fig. 4; EX1001, ¶¶525-526.)



EX1050, Fig. 4

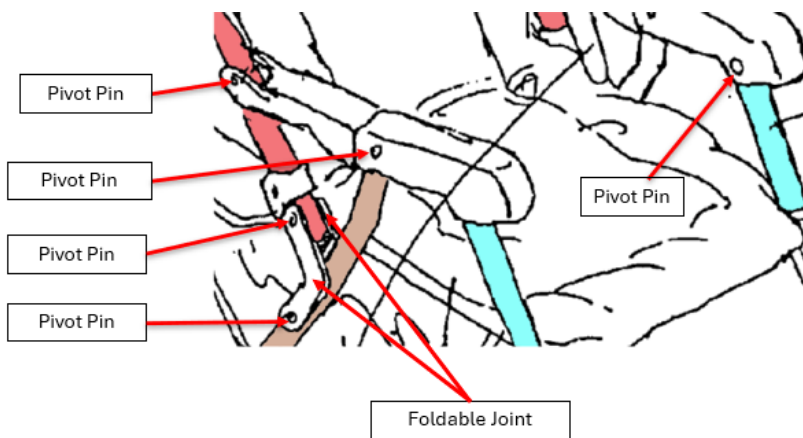
c. [1.2] / [1.3]

Hsia's first/second "front legs 111'" (blue) are connected to the front wheels of the stroller and a POSITA would understand them to be the first/second "front wheel support frame[s]." (EX1050, 4:32-38; EX1001, ¶528.)



EX1050, Fig. 4

In reviewing Hsia's stroller frame, a POSITA would have understood it includes components which appear to be a folding joint and pivot pins. A POSITA would have understood these components allow Hsia's stroller frame to be folded and unfolded as folding mechanisms were a common feature employed on strollers. (EX1001, ¶¶529-531, 45-49.) The foldable joints would be understood as pivotally connecting the back legs 112' (brown) to the "upper tube support frames" (red). A POSITA would have understood the front legs 111' (blue) also pivotally connect by a pin. (EX1001, ¶531.)



EX1050, Fig. 4

To the extent it is argued it was not obvious that Hsia's stroller is capable of folding, it would have been obvious to a POSITA to modify its structure to include such functionality as disclosed in Hsia '902. (*See* § X.D.2, *infra*.) A POSITA would have understood adding the folding mechanism of Hsia '902 would be nothing more than combining analogous prior art with a reasonable expectation of achieving a predictable result. (EX1001, ¶531.)

For instance, a POSITA would have understood Hsia '902 visually discloses a stroller frame with nearly identical structural features as disclosed by Hsia. As shown below, Hsia (below left) illustrates a foldable joint virtually identical to the one shown in Hsia '902 (below right). (EX1001, ¶¶532-534.)

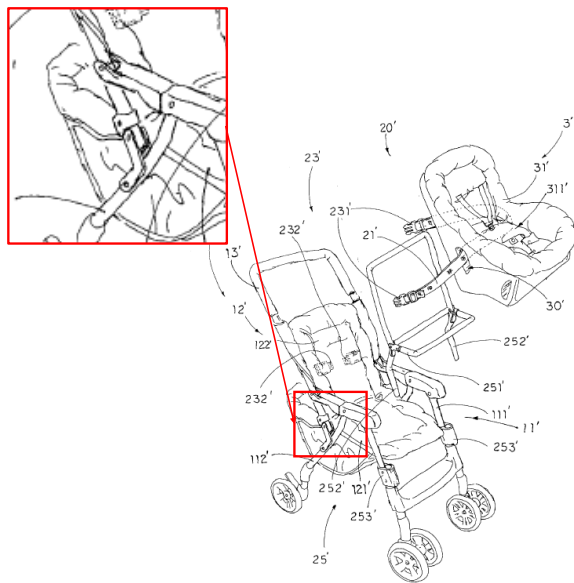


FIG. 4

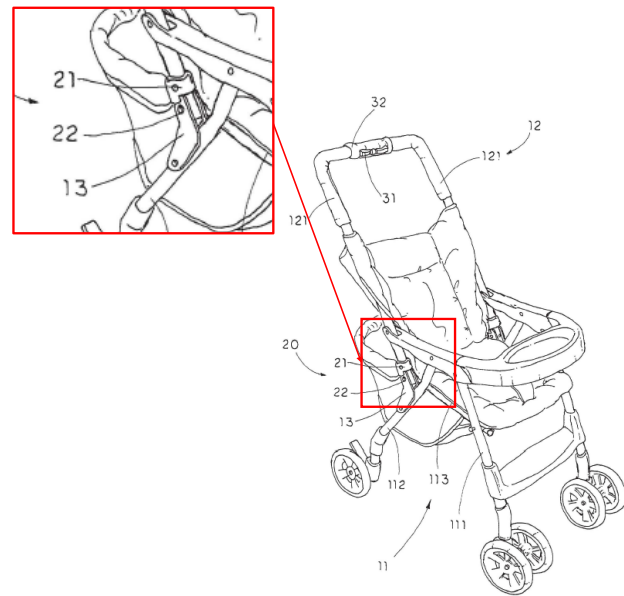
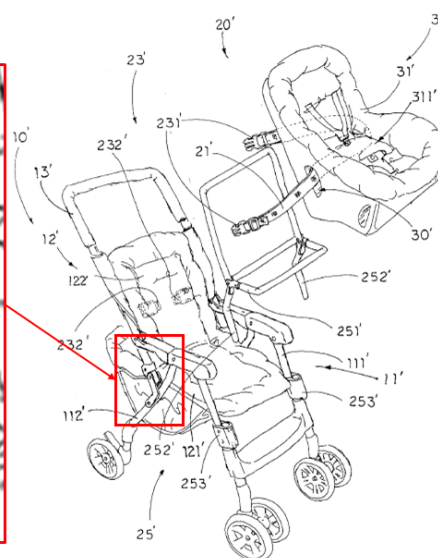
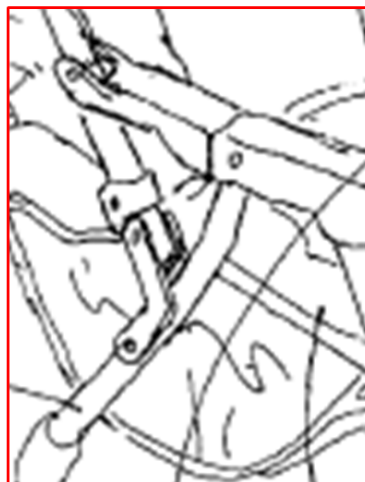
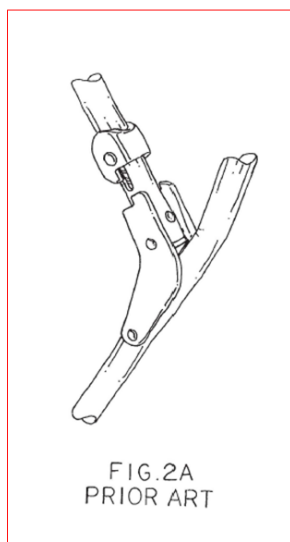


FIG. 3

Comparison of EX1050, Fig. 4 with EX1054, Fig. 3

A POSITA would have understood Hsia '902 teaches as “prior art” a nearly similar mechanism as disclosed by Hsia. A POSITA would have understood, Hsia '902 discloses this mechanism is used as a “locking device” which can be disengaged to allow the stroller to be folded. (EX1054, ¶¶0004-0007.) A POSITA would have understood that Hsia discloses such a “prior art” folding mechanism designed to allow the stroller to be folded when the “locking device” is disengaged. (EX1054, ¶¶0029-0031; EX1001, ¶¶531, 535-537.)



EX1054, Fig. 2A and EX1050, Fig. 4

Alternatively, a POSITA would have understood Hsia could be modified to include the improved folding mechanism disclosed by Hsia '902. (EX1001, ¶¶537-538.) A POSITA would have understood Hsia '902 teaches a mechanism located on the handle which would provide enhanced one-handed foldability. A POSITA would have considered adding Hsia '902's improved "one-handed" folding mechanism to provide the same benefits to Hsia's stroller. (*Id.*; EX1054, ¶¶0009-0013.)

Whether modified or unmodified, a POSITA would have understood Hsia's stroller has the first/second "front wheel support frames" (blue) and the first/second "upper tube support frames" (red) offset and extending "substantially parallel" with respect to each other when in the unfolded configuration. (EX1001,

¶¶532-533, 539.) Therefore, a POSITA would understand the first/second “front wheel support frames” (blue) would be rotatably adjusted to be “substantially parallel” to the first/second “upper tube support frames” when in the unfolded configuration. (*Id.*)

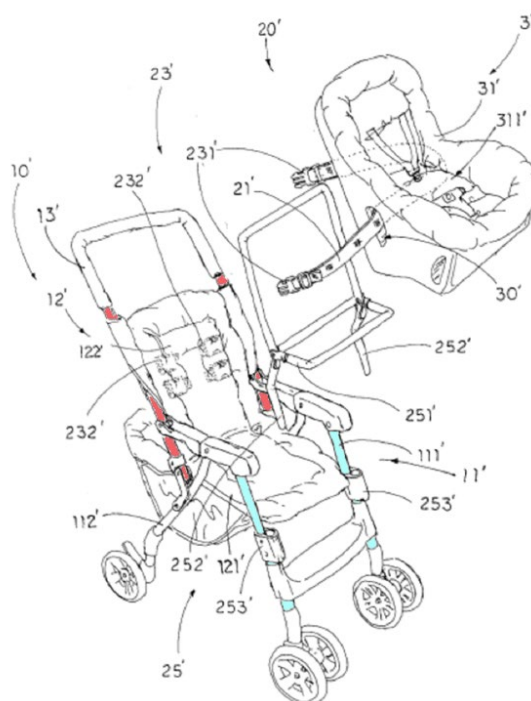


FIG. 4

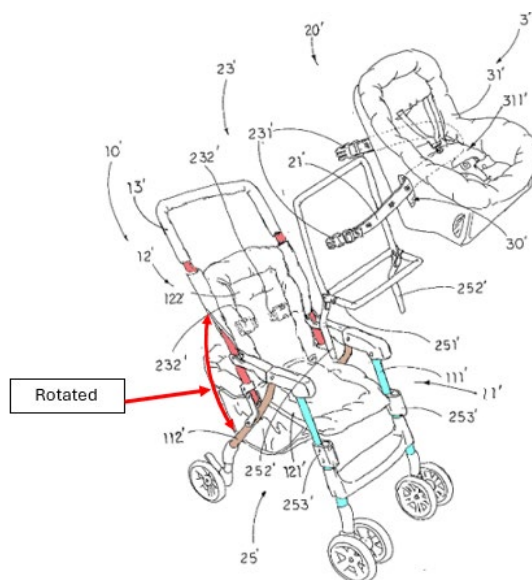
EX1050, Fig. 4

d. [1.4] / [1.5]

Hsia discloses a pair of “back legs 112’” (brown) which a POSITA would understand as the first/second “back wheel support frames.” (EX1050, 4:33-38; EX1001, ¶¶541-542.) As explained in limitation [1.2]/[1.3] above, the “back wheel support frames” are attached to the “upper tube support frame” (red) at the foldable

joint. A POSITA would understand the connection would allow the “back wheel support frames” to be rotated with respect to the “upper tube support frames” (red) when the stroller is unfolded or folded. (EX1001, ¶¶530-531.)

As shown below, the back legs 112’ (“first/second back wheel support frame” (brown) are “rotated with respect to²¹” the “first/second upper tube support frames” (red). (EX1001, ¶543.)



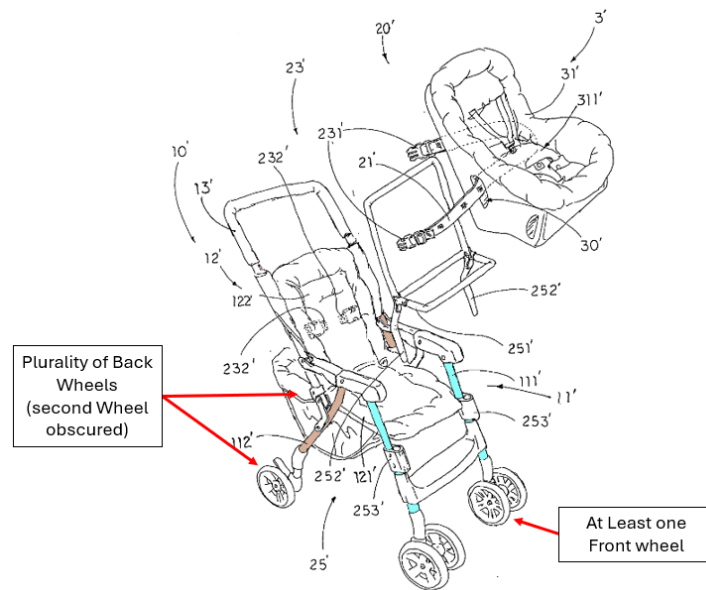
EX1050, Fig. 4

e. [1.6]

Hsia discloses a stroller with four front wheels (*i.e.*, “at least one front wheel”) and at least two back wheels, *i.e.*, “a plurality of back wheels.” (EX1050,

²¹ Claim limitation [1.4]/[1.5] does not require the back wheel support frames to be “rotatable,” but even if it did, Hsia discloses it.

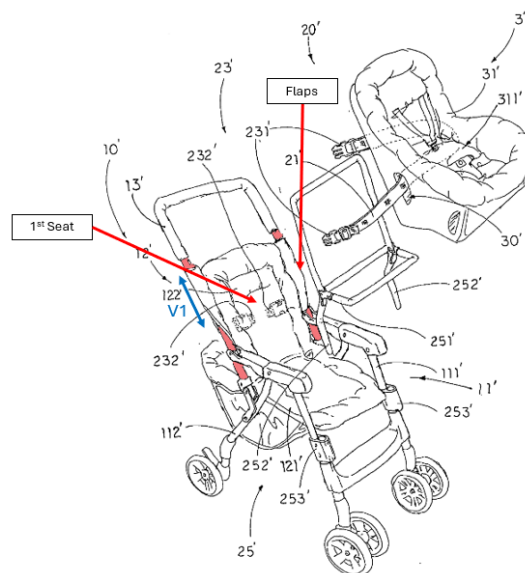
4:32-34, Fig. 4; EX1001, ¶545.)



EX1050, Fig. 4

f. [1.7]

Hsia discloses a regular seat 12' (“first seat”) having a seat support 121' and a back support 122'. (EX1050, 4:32-38; EX1001, ¶547.)



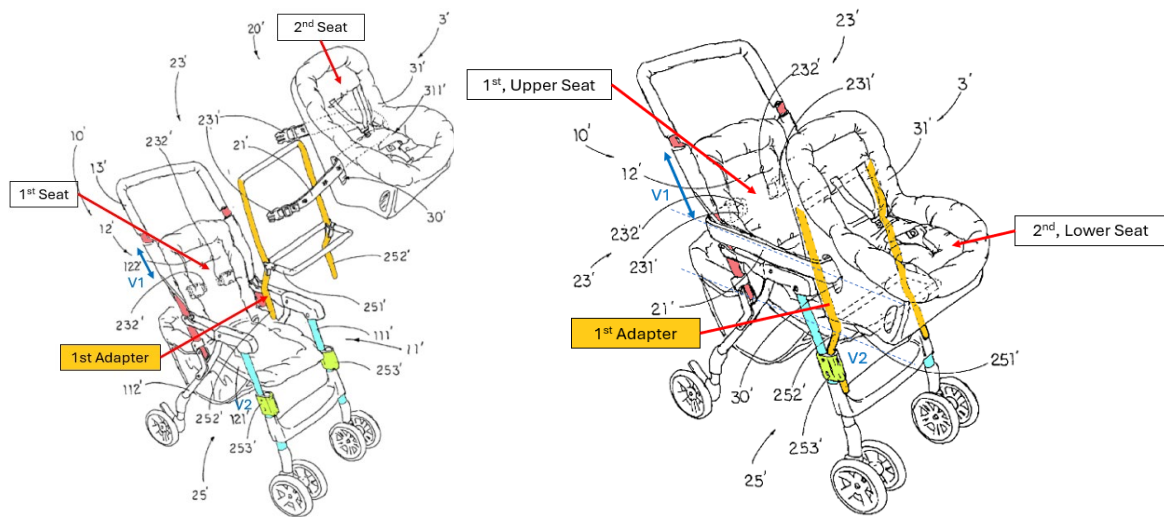
EX1050, Fig. 4

Figure 4, reproduced above, shows the seat support 122' includes outer flaps used to connect the seat support 122' to the "upper tube support frames" (red). The flaps define pockets that the "upper tube support frames" (red) extend through to couple the seat 12' to the frame 11'. That is, the seat 12' is "coupled along" (blue arrow) the "upper tube support frames" (red) via the flaps at a first vertical position (V1). (EX1050, 4:32-38; EX1001, ¶¶548-550.)

g. [1.8]

Hsia discloses a car-seat fastening arrangement 20' that supports an additional seat (car seat 3') to convert the stroller to a dual-seat configuration. (EX1050, 4:26-31.) The arrangement 20' has a seat adapter frame 25' with frame legs 252'. (EX1001, ¶¶552-553; EX1050, 4:66-5:11.)

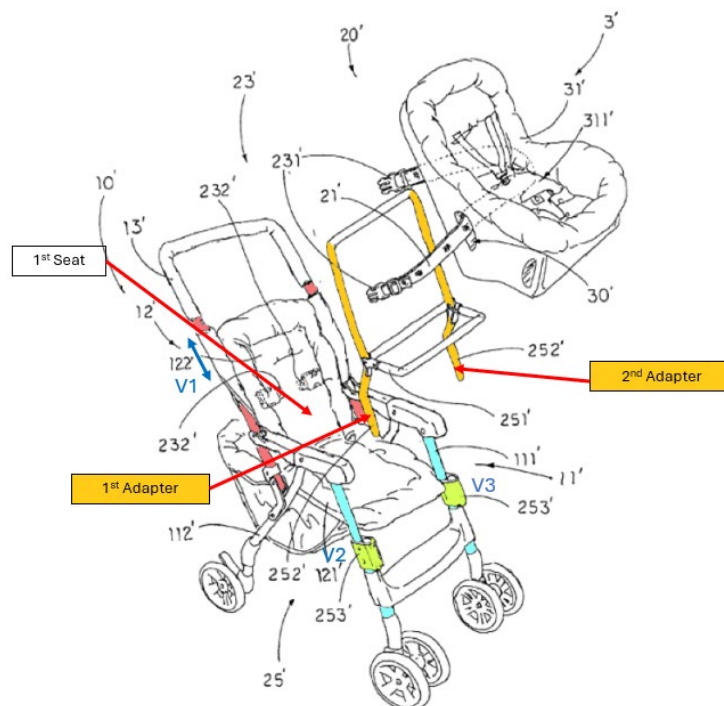
The frame legs 252' of the adaptor frame 25' receive "seat attachment adapters" (gold) that couple the car seat 3' to the stroller 11. (*Id.*) The right leg 252' (gold) discloses a "first seat attachment adapter" coupled to the front leg 11' (blue) by a tubular holder 253' (green) at a second vertical position (V2). The second vertical position (V2) is lower than the first vertical position (V1). (EX1001, ¶554.)



EX1050, Figs. 4, 6

h. [1.9]

The stroller of Hsia is symmetrical. (EX1001, ¶556.) The left support frame leg 252' discloses a “second seat attachment adapter” (gold) coupled to the “second front wheel support frame” (blue), via a tubular holder 253' (green), at a third vertical position (V3) of the stroller frame that is below the first vertical position (V1). (EX1050, 4:66-5:11; EX1001, ¶¶556-557.)



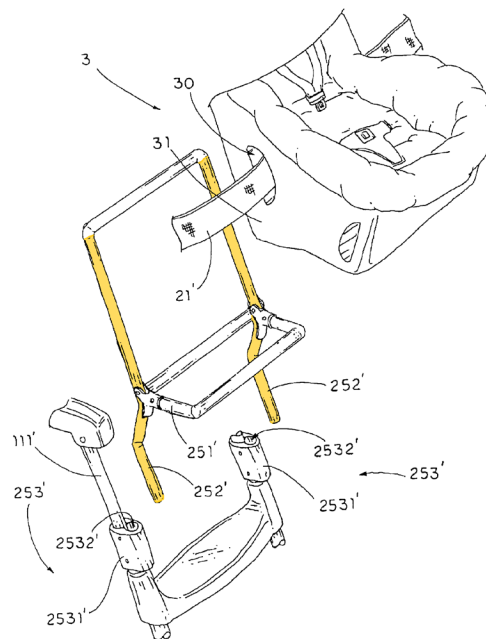
EX1050, Fig. 4

i. [1.10]

Hsia's car seat 3' (referred to as the "second seat") enables a double-seat stroller configuration. (EX1050, 5:19-20, claim 14; EX1001, ¶559.) The car seat 3' is supported by the stroller frame 10' via an adapter frame 25', which includes frame legs 252'. A POSITA would understand these frame legs 252' to correspond to the first and second "seat attachment adapters." The first and second adapters include bottom and back support structures that cooperate to receive and support the car seat 3', which is removably coupled to them. (EX1050, 4:66-5:11, Figs. 5-6; EX1001, ¶560.)

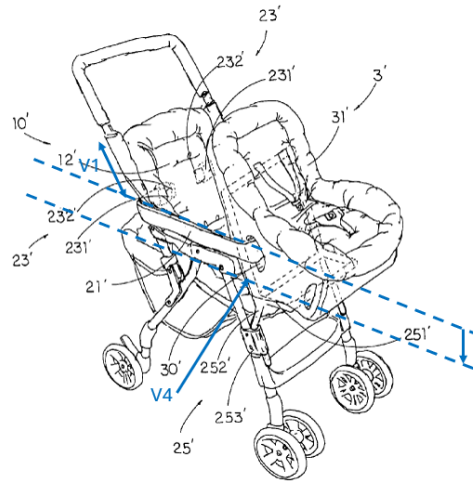
The car seat 3' is secured to the adapter frame 25'—and specifically to the

frame legs 252'—using a holding belt 21'. This belt engages second connectors 232' located on the back of the regular seat 12'. (EX1050, 4:44-49, 4:54-65, Fig. 2.) Accordingly, the car seat 3' is removably coupled to the first and second seat attachment adapters (shown in gold) by belt 21'. (EX1001, ¶¶561-562.)



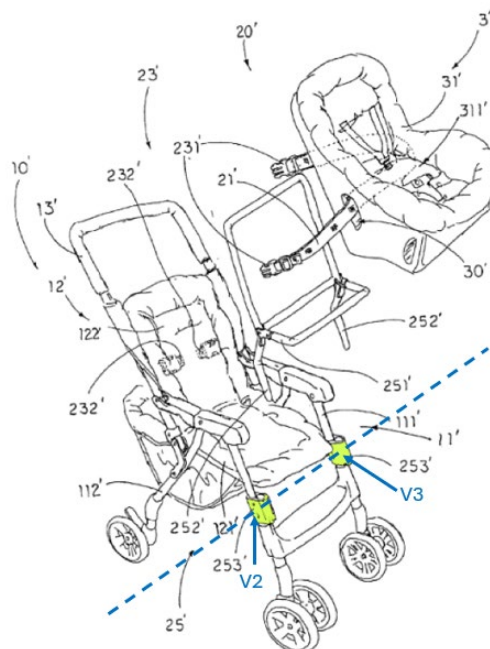
EX1050, Fig. 5

Hsia also teaches that the car seat 3' ("second seat") is mounted to the first and second seat attachment adapters at a fourth vertical position (V4), which is below the first vertical position (V1). (EX1001, ¶563.)



EX1050, Fig. 6

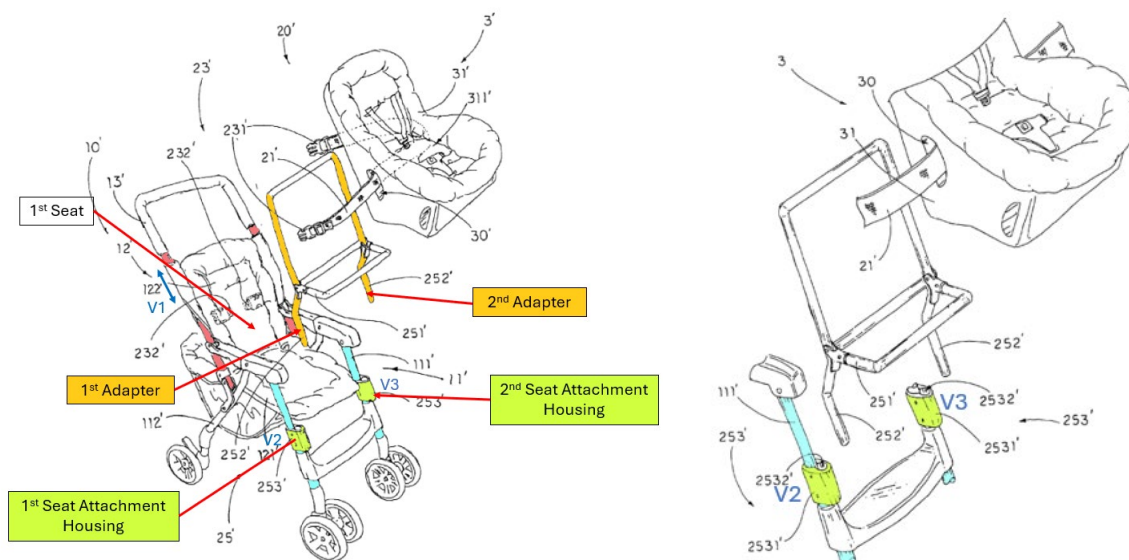
Hsia's stroller frame is symmetrical, with holders 253' (green) positioned at the same vertical height on each side, such that the second and third vertical positions (V2 and V3) are at the same level. (EX1001, ¶564.)



EX1050, Fig. 4

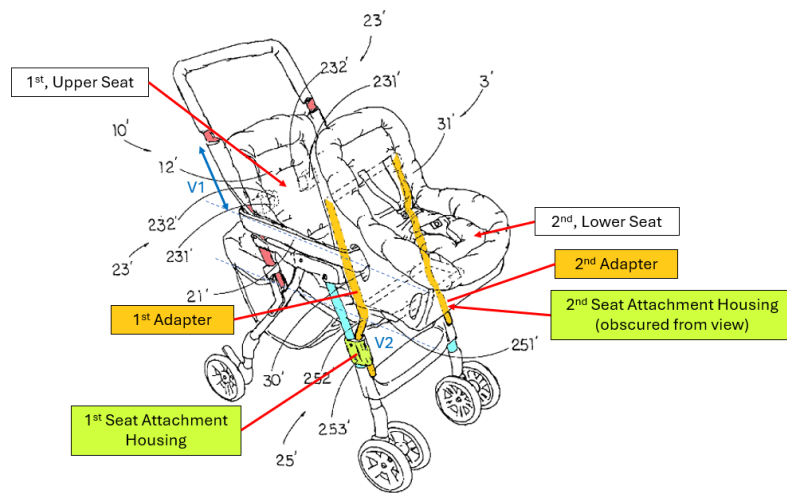
2. Claim 2

The tubular holders 253' discussed above correspond to the first and second “seat attachment housings” (green), as they are configured to receive the frame legs 252'—the “seat attachment adapters” (gold). (EX1050, 5:12-18.) Each tubular holder 253' is mounted to, and therefore adjacent to, a front leg 111', and includes a body 2531' that defines a socket 2532' for receiving a frame leg 252' (adapter). (EX1001, ¶¶566-568.)



EX1050, Figs. 5, 6

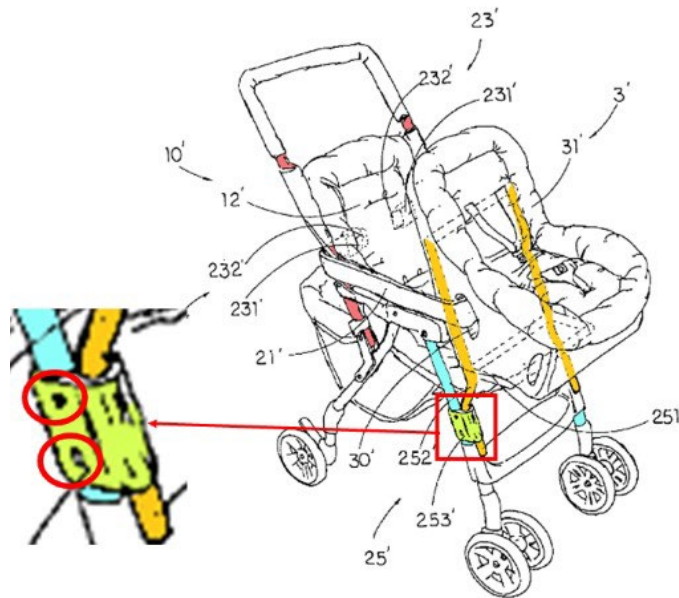
As shown in annotated Figures 5 and 6 (above), the first and second holders 253' are positioned on the front legs 111' at the second and third vertical positions (V2 and V3). (EX1001, ¶569.) The “seat attachment adapters” (gold) are “coupled to” the “seat attachment housings” (green) by being inserted into the sockets 2532' defined by the holders. (EX1050, 5:12-24; EX1001, ¶571.)



EX1050, FIG. 6 (Annotated)

3. Claim 3

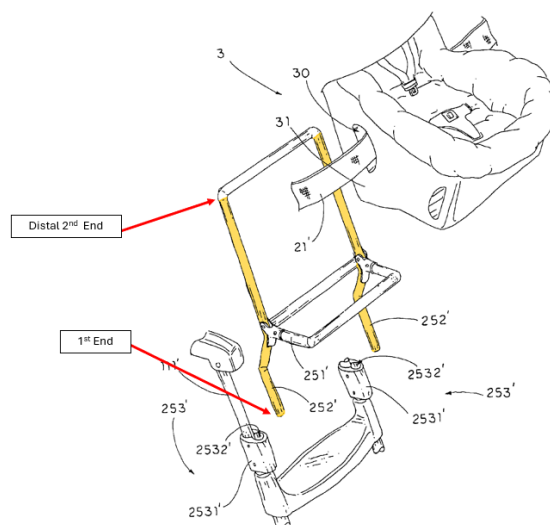
As shown below, Hsia's housings are secured to the front wheel supports using bolts or screws (circled in red), which extend into the supports. (EX1050, FIG. 4-5.) A POSITA would have recognized this as just one of many known attachment methods and would have found it obvious to modify the front wheel supports to include openings allowing a portion of the housings to extend into the frame. (EX1001, ¶572.)



EX1050, Fig. 6

4. Claim 4

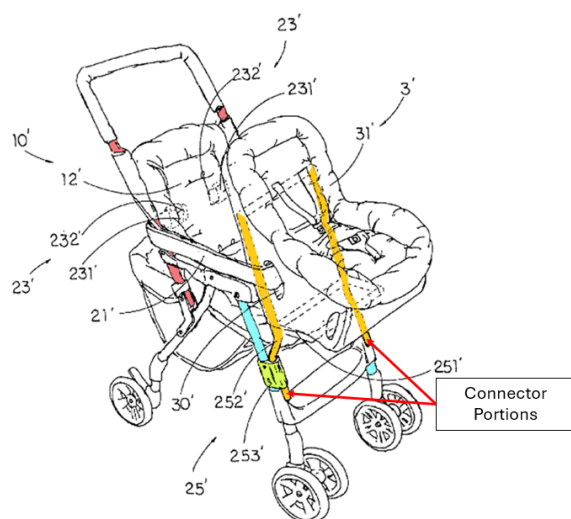
Each frame leg 252'—corresponding to the first and second “seat attachment adapters”—includes a first end and a distal second end, as shown below. (EX1001, ¶573.)



EX1050, Fig. 5

5. Claim 5

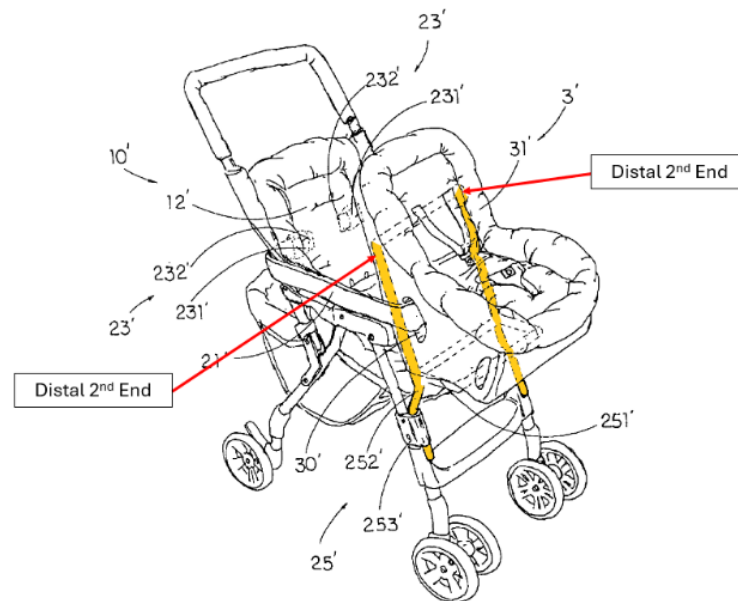
The “first ends” of the frame legs 252’ (first/second “adapters”) received in the holders 253’ (first/second “housings”) disclose “connector portions” and are “coupled to one of the first seat attachment housing and the second seat attachment housing.” (EX1001, ¶575.)



EX1050, Fig. 6

6. Claim 6

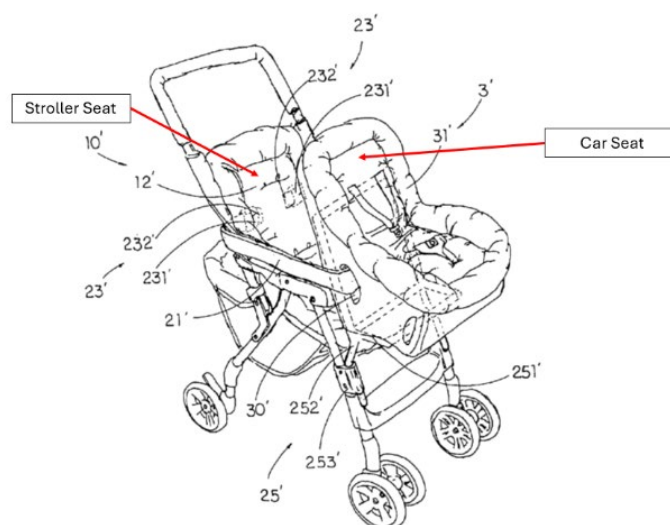
The second seat “3” is removably coupled to the left/right “seat attachment adapters” (gold) by a holding belt 21’. (EX1050, 4:66-5:11, 5:19-24.) Specifically, the holding belt 21’ secures the back of the car seat 3’ against the second ends of the frame legs 252’ when installed. Accordingly, the holding belt 21’ selectively couples the car seat 3’ to the second ends. (EX1001, ¶¶577-578.)



EX1050, Fig. 6

7. Claim 7

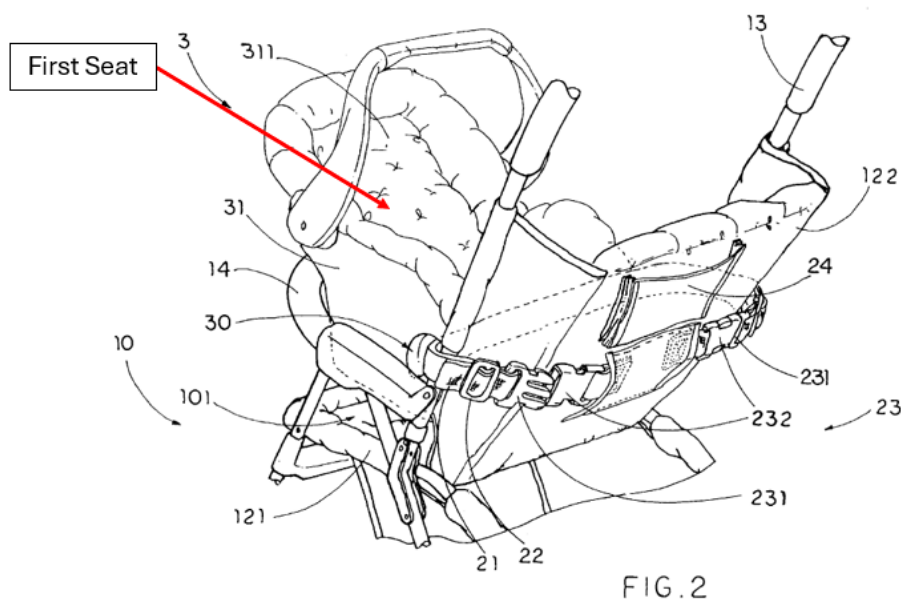
Hsia discloses a regular seat 12' (the “first seat”) and a car seat 3' (the “second seat”). (EX1050, 3:7-20.) The regular seat 12' corresponds to a “stroller seat,” while the car seat 3' corresponds to a “second car seat.” (EX1001, ¶580.)



EX1050, Fig. 6

8. Claim 8

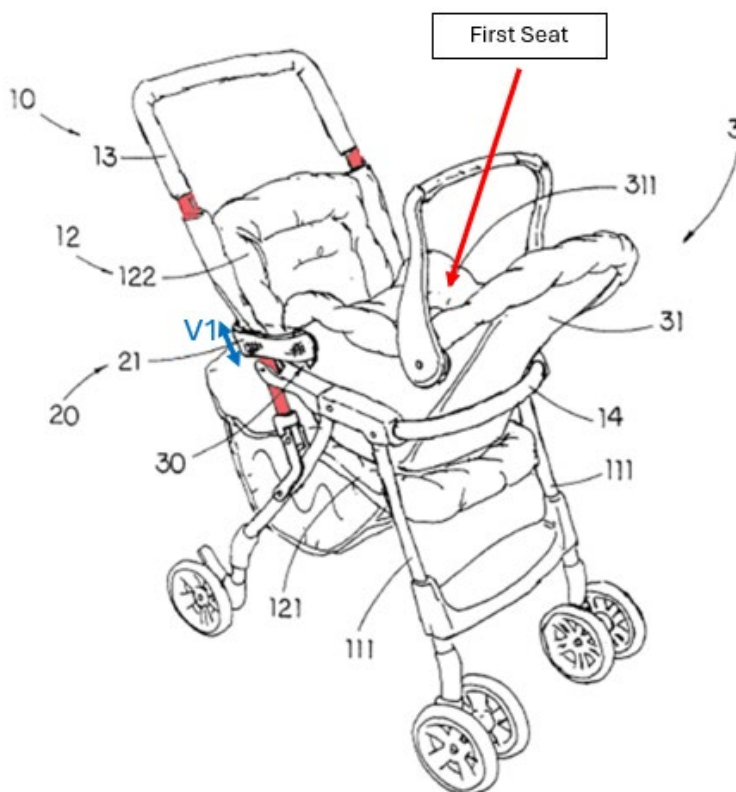
In an alternative embodiment, Hsia discloses two infant carriers supported by the stroller frame 10. (EX1050, claims 13-14; EX1001, ¶582.) One of the infant carriers is car seat 3, which is connectable to the stroller frame 10 as shown in Figure 1. (EX1050, 2:62-67.) The car seat 3 includes a fastening arrangement 20 comprising a holding belt 21 that connects with a connecting unit 23 provided on the seat back support 122. (EX1050, 3:1-5, 4:44–53.) The holding belt 21 wraps around the first and second upper tube support frames (red) and includes first connectors 231 that mate with female second connectors 232 located on the back support 122 (EX1050, 3:32-58.) (EX1001, ¶583.)



EX1050, Fig. 2

In this embodiment, the car seat 3 corresponds to the claimed “first seat.”

The holding belt 21 extends around the upper tube support frames (red) of the stroller frame 10 and connects to the connecting unit 23. When the car seat 3 is coupled to the stroller frame, the holding belt 21 is in direct contact with the upper tube support frames. Accordingly, the holding belt 21 couples the car seat 3 (the “first seat”) along or to the upper tube support frames at a first vertical position (V1). (EX1001, ¶584.)



EX1050, Fig. 1

To the extent claim 8 requires direct coupling to the “first/second upper tube support frames,” it would have been obvious to position the second connectors 232 directly on or along those upper tube support frames (red). (EX1001, ¶585.) For

example, a strap associated with the second connector could be affixed directly to the upper tube support frames using known techniques, such as fastening with a screw. Once modified in this way, the first connectors would be directly coupled to the first and second upper tube support frames. (EX1001, ¶¶585-587.)

It was well within the knowledge and skill of a POSITA to relocate the connection point of the second connectors 232 using conventional techniques (*e.g.*, a mechanical fastener), as commonly employed in stroller design. A POSITA would have been motivated to implement this modification because attaching the connector strap directly to the upper tube support frames would provide a more secure and stable connection for the infant carrier. This modification would also allow for a shorter belt 21 and position the clip connectors 231/232 along the sides of the stroller frame 10, a more convenient location for user access. (EX1001, ¶588.)

Hsia's claim 14, which depends from claim 13, recites a dual car-seat embodiment. A POSITA would have understood from claim 13, as well as Figures 1 and 2, that a car seat could be placed in the regular seat 12—*e.g.*, as shown in Figure 2. Claim 14 explicitly adds that the adapter frame allows a second car seat to be supported in front of the regular seat “to prevent occupying said regular seat[,]” thereby providing an additional seating position. (EX1050, Claims 13-14; EX1001, ¶¶589-590.)

From the embodiment in Figures 1 and 2, a POSITA would understand that a car seat 3 can be placed in the regular seat to create a dual car-seat configuration. A POSITA seeking to transport two infants in a single stroller would have recognized that duplicating the fastening arrangement 20 would allow Hsia's stroller to support both seats. Adding a second belt and connector system to secure a second car seat to the stroller 10 would have been well within the level of ordinary skill. (EX1001, ¶591.)

If necessary, resizing the stroller frame to accommodate two car seats would also fall within the routine design work expected of a POSITA. A POSITA would have known how to modify the dimensions of the stroller frame 12' and the adapter frame 25' to provide sufficient clearance. Additionally, a POSITA would have found it obvious to increase the forward bend of the frame legs 252' to create more space behind the forward seat, thereby accommodating a second car seat in the regular seat 12. (EX1001, ¶592.)

In the dual car seat configuration, Hsia's stroller would support a forward car seat 3 (the "second seat") mounted on the adapter frame 25' and a rear car seat 3 (the "first seat") positioned in the regular seat 12'. (EX1050, 4:66-5:11, Fig. 2; EX1001, ¶593.) The first seat would be removably coupled to the stroller frame using the holding belt 21 and connectors 232'. (EX1050, 3:38-62, 4:54-65.) A POSITA would recognize the connectors 232' as the "third and fourth seat

attachment adapters,” as they enable releasable connection of the first seat to the stroller frame, thereby adapting the stroller into a dual car seat configuration. These connectors are coupled to the stroller frame at the first vertical position. (EX1001, ¶594.)

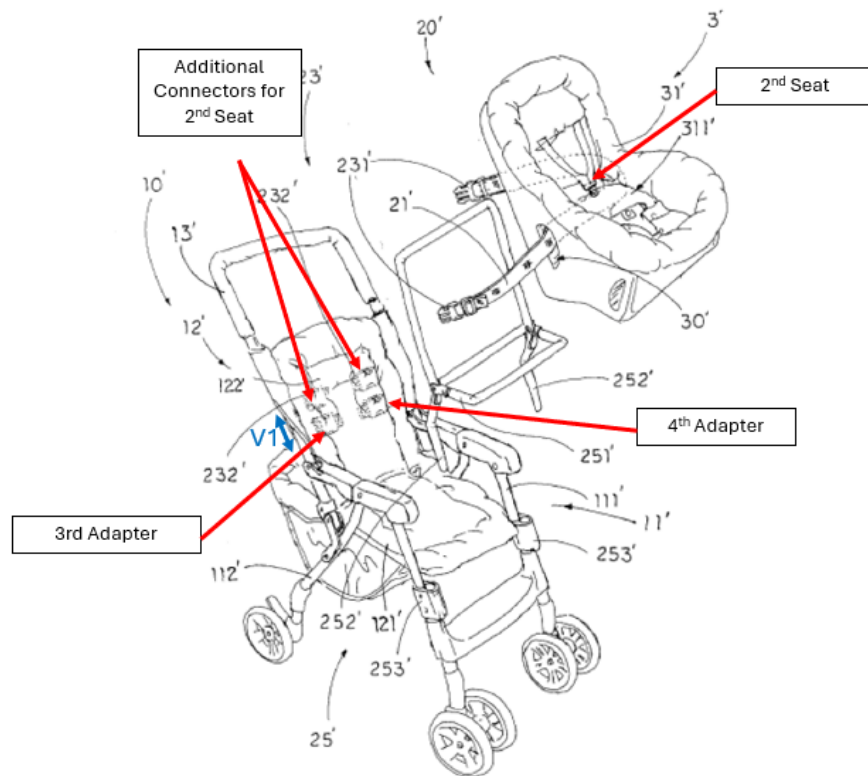


FIG. 4

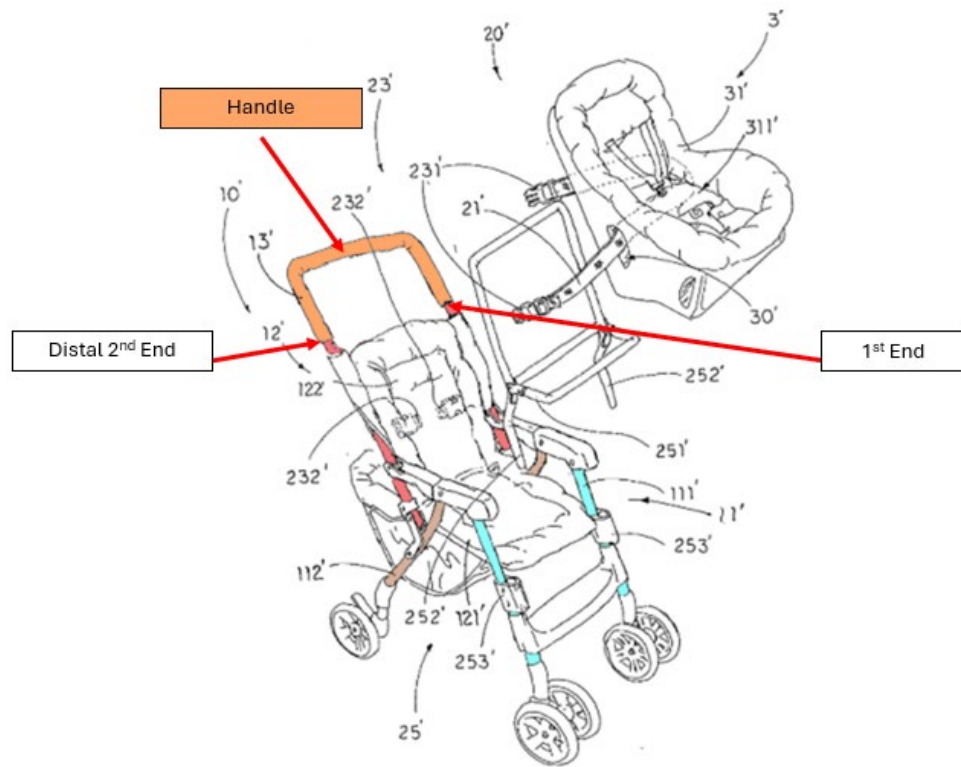
EX1050, Fig. 4

The second set of connectors 232' (“third/fourth seat attachment adapters”) are located at the first vertical position. (EX1001, ¶595.)

9. Claim 9

Hsia discloses a handle frame 13/13' (orange) comprising a first end coupled

to the first upper tube support frame (red) and a distal second end coupled to the second upper tube support frame (red). (EX1050, 3:7-13; EX1001, ¶¶597-598.)



EX1050, Fig. 4

10. Claim 17

a. [17.0] / [17.1]

See [1.0]-[1.1]. (EX1001, ¶¶523-526, 600.)

b. [17.2]

See [1.4]. (EX1001, ¶¶541-543, 530-531, 601.)

c. [17.3]

See [1.5]. (EX1001, ¶¶541-543, 530-531, 602.)

d. [17.4]

See [1.2]. (EX1001, ¶¶528-539, 603.)

e. [17.5]

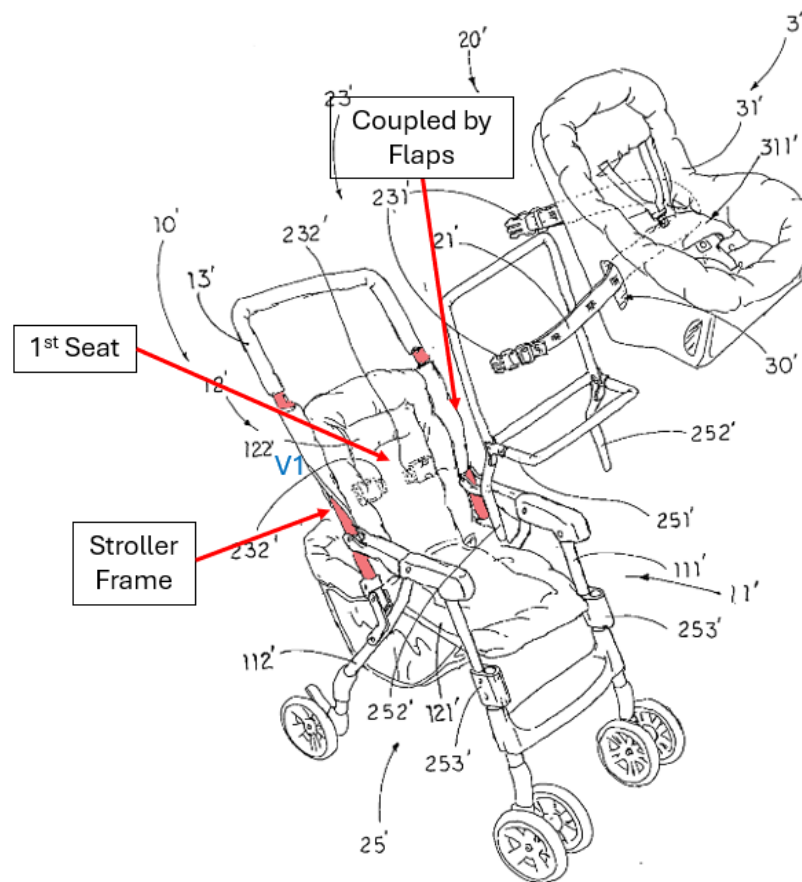
See [1.3]. (EX1001, ¶¶528-539, 604.)

f. [17.6]

See [1.6]. (EX1001, ¶¶545, 605.)

g. [17.7]

Claim limitation [17.7] is substantially similar to claim limitation [1.7], and the analysis provided for [1.7] is incorporated herein by reference. As discussed with respect to limitation [1.7], the first seat support 12' in Hsia '316 includes outer flaps that wrap around the upper tube support frame (red), thereby connecting—or “coupling”—the back portion (seat support 122') of seat 12' to the stroller frame. (EX1001, ¶¶547-550.) Accordingly, Hsia '316 discloses “a first seat is coupled to the stroller frame at a first vertical position of the stroller frame.” (EX1001, ¶¶606-607.)



EX1050, Fig. 4

h. [17.8] / [17.9]

See [2.0]. (EX1001, ¶¶567-571, 608.)

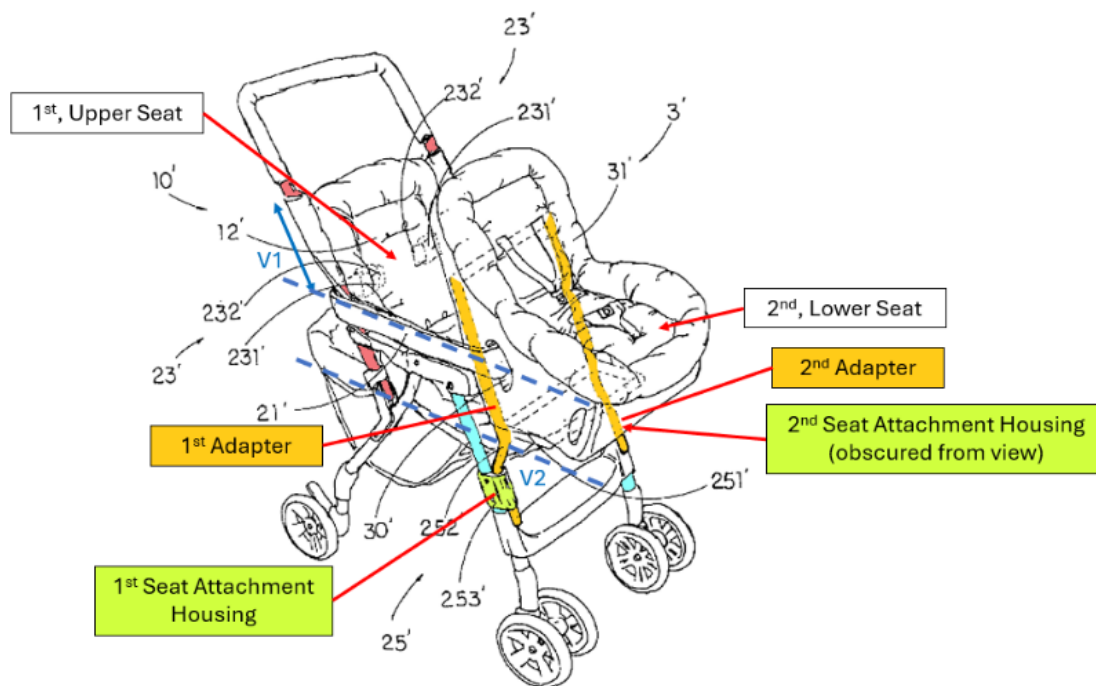
i. [17.10]

As discussed in connection with claim limitation [1.8], Hsia discloses “a first seat attachment adapter coupled to the first front wheel support frame at a second vertical position of the stroller frame that is below the first vertical position[.]” (EX1001, ¶¶552-554, 609.) Additionally, as addressed in claim limitation 2, Hsia discloses “a first seat attachment housing disposed adjacent the first front wheel

support frame at the second vertical position.” (*Id.*, ¶¶566-572, 609.)

Further, as discussed with respect to claim limitations [1.2]–[1.3], Hsia teaches that the stroller is foldable and that the upper tube support frames are “substantially parallel” to the front wheel support frames when the stroller is in the unfolded configuration. (EX1001, ¶¶528-539, 610.)

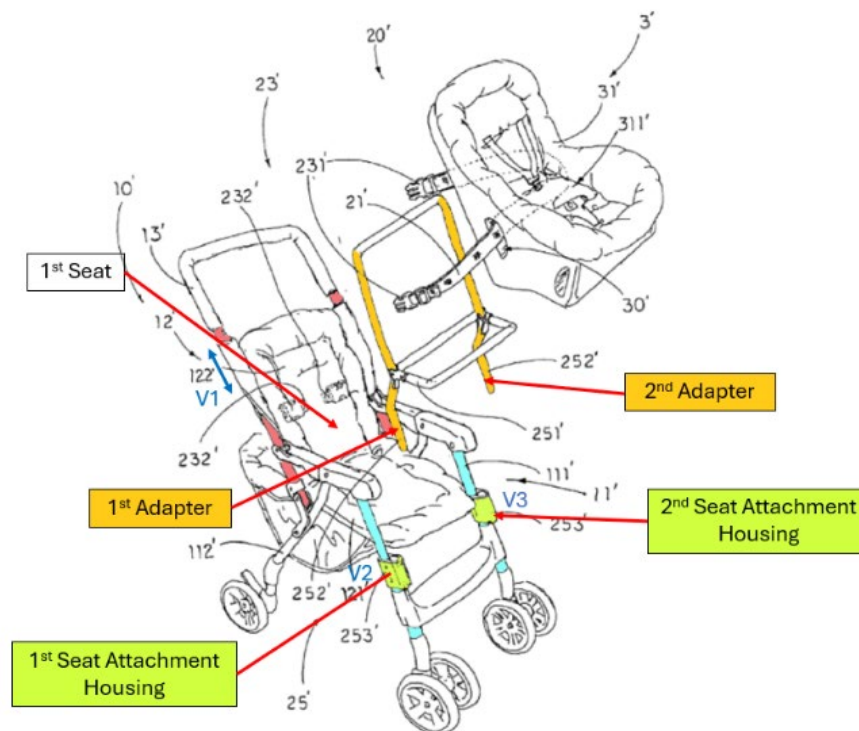
Accordingly, Hsia discloses “a first seat attachment adapter” (gold) “coupled to the first seat attachment housing” (green) “at a second vertical position” (V2) of the stroller frame, “that is below the first vertical position” (V1), “when the first upper tube support frame” (red) “is substantially parallel with the first front wheel support frame” (blue) in the stroller’s unfolded configuration. (EX1001, ¶611.)



EX1050, Fig. 6

j. [17.11]

The stroller of Hsia '316 is symmetrical; therefore, claim limitation [17.11] is obvious for the same reasons discussed in claim limitation [17.10] [1.2]-[1.3], [1.8], [1.9], and [2.0] and as shown below (EX1001, ¶¶552-554, 566-569, 528-539, 609-612.):



EX1050, Fig. 4

k. [17.12]

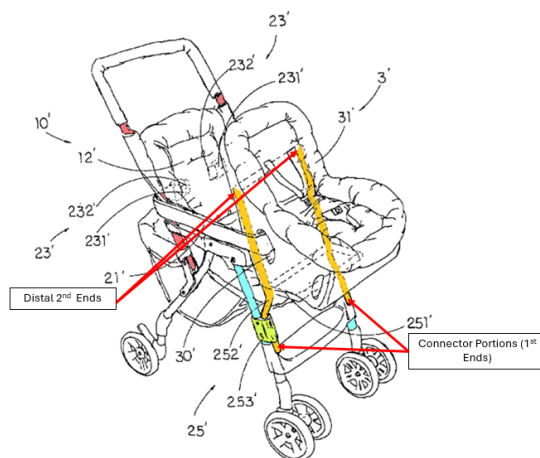
See [1.7]. (EX1001, ¶¶547-550, 613.)

1. [17.13]

See [1.10]. (EX1001, ¶¶559-564, 614.)

11. Claim 18

Claim 18 is similar to claim limitations [1.8]-[1.10], [4.0]-[5.0], and that analysis is incorporated herein. Hsia discloses “first and second seat attachment adapters” (gold). Each of the “adapters” (gold) comprises a “first end” comprising a “connector portion” “coupled to” the “first seat attachment housing” or the “second seat attachment housing” (green) and a “distal second end,” “wherein the second seat is removably coupled to the second end.” (EX1001, ¶¶552-564, 573-575, 615.)



EX1050, Fig. 6

12. Claim 19

See [9.0]. (EX1001, ¶¶597-598, 617.)

13. Claim 20

Claim 20 is obvious for the same reasons as claim limitations [8.0]-[8.1]. (EX1001, ¶¶582-595.) A slight difference in Claim 20 is requiring the “third and fourth seat attachment adapters” be “coupled to” the “first and second upper tube

support frames.” The connectors 232/232’ (“third/fourth seat attachment adapters”) are indirectly coupled to the upper tube support frames (red) by the regular seat 12. (EX1050, 3:47-58; EX1001, ¶618.)

Moreover, it would have been obvious to move the location of the connectors 232/232’ so that they were directly coupled to the upper tube support frames (red) as discussed in claim 8. This would provide a direct coupling between the third/fourth seat attachment adapters (to the extent it is required). (EX1001, ¶619.)

D. Rational to combine

1. Liao and Cheng

Liao (EX1048) and Cheng (EX1049) are both directed to baby strollers and disclose structurally similar frames—upper, front, and rear frame members joined at a central coupling. (EX1048, Fig. 1; EX1049, ¶0040, Fig. 2.) These similarities render Cheng analogous to Liao. (EX1001, ¶517.) A POSITA would have found it obvious to substitute Liao’s fixed central coupling with Cheng’s folding mechanism to enable frame collapsibility. (EX1001, ¶518.) Given the shared three-way frame configuration and Cheng’s folding assembly being designed for such a junction, a POSITA would have understood how to integrate Cheng’s mechanism into Liao’s frame with minimal structural change. (EX1001, ¶519.)

A POSITA would have been motivated to incorporate Cheng’s folding

feature to enhance stroller portability and storage—widely recognized and commercially desirable goals in stroller design. (EX1033, 1:10–20; EX1001, ¶520.) Strollers are typically bulky and difficult to store, and Cheng’s mechanism provides a clear, predictable benefit by allowing the upper frame to fold downward and the front wheel assembly to pivot, creating a more compact footprint. (EX1049, ¶¶0049–0050.) These improvements would have aligned with user expectations and design trends toward more versatile and transportable products. (EX1001, ¶521.)

The proposed modification is a substitution of one known component (a fixed coupling) with another known component (a folding coupling) to achieve a predictable result. *See KSR v. Teleflex*, 550 at 416. Cheng’s folding assembly would operate in the same manner in Liao’s frame as it does in Cheng’s—joining three frame members and enabling collapsibility. A POSITA would have had a strong rationale to make this substitution and a reasonable expectation of success. (EX1001, ¶522.)

2. Hsia and Hsia ‘902

As discussed in § C.1.c, the frame structures of Hsia ’316 and Hsia ’902 are nearly identical. (EX1001, ¶¶534–539.) Given this similarity, a POSITA would have recognized that the folding joints 13, engaging units 20, and release mechanism 31/32 disclosed in Hsia ’902 (EX1054, ¶0033) could be incorporated

into Hsia '316 with a high expectation of success. (EX1001, ¶538.) Replacing the unlabeled bracket in Hsia '316 with the folding bracket 13 of Hsia '902 and adding the associated engaging and release mechanisms would involve only routine design modifications well within the skill of a POSITA. (*Id.*)

A POSITA would have been motivated to combine these references to achieve the well-known benefit of making the stroller foldable. Strollers are large, often bulky products that can be difficult to transport and store. The advantages of a folding stroller—such as improved portability and reduced storage footprint—were well recognized in the art. (EX1054, ¶0004; EX1031, Hollie Schultz Decl., EX10 at 284.) Incorporating the folding mechanism of Hsia '902 into Hsia '316 would have predictably resulted in a foldable stroller without altering the function of the individual components. (EX1001, ¶538.)

This is simply combining prior art elements according to known methods to yield predictable results. Each component—Hsia's frame and Hsia '902's folding mechanism—was independently known in the art and performs the same function when combined. *See KSR v. Teleflex*, 550 U.S. at 416. The claimed invention merely brings together familiar elements with no change in their respective functions, and is therefore obvious under the principles set forth in *KSR* and *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969).

X. Secondary Considerations

Petitioner is not aware of any secondary considerations or objective indicia of non-obviousness.

XI. Conclusion

There is a reasonable likelihood that Petitioner will prevail on claims 1-9 and 17-20 and requests *inter partes* review be instituted for all Challenged Claims.

Dated: May 6, 2025

Respectfully submitted,

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UPPAbaby*

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e)(4), I hereby certify that on **June 6, 2025**, a copy of the foregoing **PETITION FOR *INTER PARTES* REVIEW**, and any supporting exhibits filed therewith, were served via USPS Priority Mail Express overnight delivery to the following correspondence address of record for U.S. Patent No. 11,192,568:

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Respectfully submitted,

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Appendix A – Index of Challenged Claims

Claim 1	
[1.0]	A stroller, comprising:
[1.1]	a stroller frame comprising: a first upper tube support frame; a second upper tube support frame;
[1.2]	a first front wheel support frame rotatably adjusted to be substantially parallel with respect to the first upper tube support frame when the stroller frame is unfolded from a folded configuration;
[1.3]	a second front wheel support frame rotatably adjusted to be substantially parallel with respect to the second upper tube support frame when the stroller frame is unfolded from a folded configuration;
[1.4]	a first back wheel support frame rotated with respect to the first upper tube support frame; and
[1.5]	a second back wheel support frame rotated with respect to the second upper tube support frame;
[1.6]	a plurality of wheels comprising at least one front wheel and a plurality of back wheels;
[1.7]	a first seat coupled along the first upper tube support frame and the second upper tube support frame at a first vertical position of the stroller frame;
[1.8]	a first seat attachment adapter coupled to the first front wheel support frame at a second vertical position of the stroller frame that is below the first vertical position;
[1.9]	a second seat attachment adapter coupled to the second front wheel support frame at a third vertical position of the stroller frame that is below the first vertical position;
[1.10]	wherein a second seat is removably coupled to the first seat attachment adapter and the second seat attachment adapter to position the second seat at a fourth vertical position that is below the first vertical position and wherein the second vertical position and the third vertical position are at a

	same vertical height.
Claim 2	
2	The stroller of claim 1, further comprising: a first seat attachment housing disposed adjacent the first front wheel support frame at the second vertical position; a second seat attachment housing disposed adjacent the second front wheel support frame at the third vertical position; wherein the first seat attachment adapter is coupled to the first seat attachment housing and the second seat attachment adapter is coupled to the second seat attachment housing.
Claim 3	
3	The stroller of claim 2, wherein the first seat attachment housing extends into the first front wheel support frame and the second seat attachment housing extends into the second front wheel support frame.
Claim 4	
4	The stroller of claim 2, wherein each of the first seat attachment adapter and the second seat attachment adapter has a first end and a distal second end.
Claim 5	
5	The stroller of claim 4, wherein the first end comprises a connector portion and is coupled to one of the first seat attachment housing and the second seat attachment housing.
Claim 6	
6	The stroller of claim 4, wherein the second seat is removably coupled to the second end.
Claim 7	
7	The stroller of claim 1, wherein the first seat is one of a baby seat, a car seat, a stroller seat, a bassinet, a baby carrier, or a pram and the second seat is one of a second baby seat, a second car seat, a second stroller seat, a second bassinet, a second baby carrier, or a second pram.

Claim 8	
8	The stroller of claim 1, further comprising: a third seat attachment adapter coupled to the stroller frame at the first vertical position; and a fourth seat attachment adapter coupled to the stroller frame at the first vertical position; wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter.
Claim 9	
9	The stroller of claim 1, further comprising a handle comprising a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame.
Claim 17	
[17.0]	A stroller, comprising:
[17.1]	a stroller frame comprising: a first upper tube support frame; a second upper tube support frame;
[17.2]	a first back wheel support frame;
[17.3]	a second back wheel support frame;
[17.4]	a first front wheel support frame;
[17.5]	a second front wheel support frame;
[17.6]	a plurality of wheels comprising at least one front wheel and a plurality of back wheels;
[17.7]	a first seat coupled to the stroller frame at a first vertical position of the stroller frame;
[17.8]	a first seat attachment housing disposed adjacent the first front wheel support frame;
[17.9]	a second seat attachment housing disposed adjacent the second front wheel support frame;

[17.10]	a first seat attachment adapter coupled to the first seat attachment housing at a second vertical position of the stroller frame that is below the first vertical position when the first upper tube support frame is substantially parallel with the first front wheel support frame when the stroller frame is unfolded from a folded configuration;
[17.11]	a second seat attachment adapter coupled to the second seat attachment housing at a third vertical position of the stroller frame that is below the first vertical position when the second upper tube support frame is substantially parallel with the second front wheel support frame when the stroller frame is unfolded from a folded configuration;
[17.12]	wherein the first seat is coupled along the first upper tube support frame and the second upper tube support frame and
[17.13]	wherein a second seat is removably coupled to the first seat attachment adapter and the second seat attachment adapter.
Claim 18	
18	The stroller of claim 17, wherein each of the first seat attachment adapter and the second seat attachment adapter comprises: a first end comprising a connector portion coupled to one of the first seat attachment housing and the second seat attachment housing; and a distal second end, wherein the second seat is removably coupled to the second end.
Claim 19	
19	The stroller of claim 17, further comprising a handle comprising a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame.
Claim 20	
20	The stroller of claim 17, further comprising: a third seat attachment adapter coupled to the first upper tube support frame; and a fourth seat attachment adapter coupled to the second upper tube support frame; wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter.