UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EVENFLO COMPANY, INC.,
Petitioner,

v.

BABY JOGGER, LLC
Patent Owner.

U.S. Patent No. 11,731,682

Case No.: IPR2025-01122

DECLARATION OF DOUGLAS S. PRAIRIE, P.E.

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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. Patent No. 8,955,869
EX1005	U.S. Patent 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 No. 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." *Journal of the Royal Society of Arts*, vol. 71, no. 3694, 1923, pp. 716–728
EX1026	U.S. Patent No. 405,600
EX1027	U.S. Patent No. 510,355
EX1028	Non-certified File History of U.S. Patent Application No. 13/123,550, including certified copy of GB0818605
EX1029	U.S. Patent No. 4,191,397
EX1030	U.S. Patent No. 6,513,827
EX1031	Declaration of Hollie Schultz
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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	U.S. Patent No. 5,338,096
EX1037	U.S. Patent No. 6,086,087
EX1038	Kolcraft Contours Options Tandem Stroller Instruction Sheet, EXA to Affidavit of Christoper 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
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EX1046	Comparison of First Non-Provisional Specification and '305 CIP Specification
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EX1051	U.S. Patent No. 8,672,341
EX1052	Non-certified File History of U.S. Pat. App. No. 29/324,044
EX1053	CN2778636Y and Certified English Translation
EX1054	WO 2008/040797
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	*McGraw-Hill Dictionary of Scientific and Technical Terms* (6th ed. 2003), Definition of "parallel"
EX1060	*Barron's Dictionary of Mathematics Terms* (3d ed. 2009), Definition of "parallel"

I, Douglass Prairie, hereby declare as follows:

1. I am making this declaration at the request of Evenflo, Inc. in the matter of *Inter Partes* Review of U.S. Patent No. 11,731,682 ("the '682 Patent") to Lee.

2. I am being compensated for my work in this matter at a rate of $150/hour for my work, but my opinions are based on my own views of the patented technology and the prior art. My compensation is not dependent on the outcome of this proceeding and in no way affects the substance of my statements in this Declaration.

3. In preparation of this declaration, I have studied the exhibits as listed in the Exhibit List shown above in my report.

4. In forming the opinions expressed below, I have considered:

   a. The documents listed above, as well as additional patents and documents referenced herein;

   b. The relevant legal standards, including the standard for obviousness provided in *KSR International Co. v. Teleflex, Inc*., 550 U.S. 398 (2007), and any additional documents cited in the body of this declaration; and

   c. My knowledge and experience based upon my work and study in this area as described below.

I. Qualifications and Professional Experience

1. I am currently a lecturer at South Dakota State University and a registered Professional Engineer in the State of Idaho. I hold an M.S. in Mechanical Engineering from Boise State University, which I received in 2004. I also hold a B.S. in Agricultural Engineering (with a focus on power and machinery) from South Dakota State University, which I received in 1997.

2. I have worked in the engineering industry for over twenty-five years in various roles, including as a test engineer, product developer, engineering department manager, sales manager, mechanical research manager for an innovation group, mechanical and industrial design engineer, and consultant. My professional work experience has included the design, development, and testing of strollers like those being referenced in this case. I am also the proud father of triplets, so I am well versed in child mobility gear. In my present position as a lecturer at South Dakota State University, I lecture and lead the development of engineering and technical-based coursework. Courses I am responsible for involve the design, operation and ownership of various types of mechanical equipment.

3. From May 1996 until September 1996 (while I was completing my B.S.), I worked for Ag-Chem Equipment Co., where I performed product testing on various mechanical systems. (I understand that after my work there, Ag-Chem Equipment Co. was acquired by AGCO Corporation in 2001.)

4. From October 1996 until July 2000, I worked for Case Corporation, a large manufacturer of construction and agricultural equipment, as a New Product Development Engineer. In that role, I was involved in the conception, design, development, and production of mechanical equipment.

5. From December 2000 until February 2003 and again from September 2005 until December 2007, I worked for Multiquip, a manufacturer and supplier of products for construction, industrial, telecom, government, and other industries, as an Engineering Department Manager. In that role, I managed a team of 15 engineers, designers, drafters, and technicians in support of over 200 different products. I also managed a $1.3 million budget for product development and engineering product support. My responsibilities also included designing equipment to comply with applicable safety and homologation standards.

6. From February 2003 until September 2005, I worked for Bratney Companies as a Construction/Mechanical Project Engineer of Industrial Processes. My role involved the development and management of construction projects.

7. From December of 2007 to March of 2010, I performed full time contract engineering work through my own company, Prairie West LLC, which was based in Boise, ID. One of the long-term contracts I performed during that period was for BOB Gear (a high-end jogging stroller manufacturer and marketer) as a designer, developer, and test engineer on projects involving single and double

jogging strollers. My engineering education and extensive experience involving product design, development, testing, and safety standard compliance for mechanical products made me well-suited for the role. Also, as a parent of triplets who were toddlers at this point in my life, I was able to provide BOB Gear with not only engineering expertise but also direct applied knowledge of strollers from a parent's perspective. I worked on a variety of projects for BOB Gear, including an updated design of their single and double jogging strollers. My early work at BOB Gear involved taking a new stroller design concept produced by an external industrial designer and analyzing the concept's ability to meet functional goals, manufacturability cost goals, and be compliant with child safety guidelines and homologation standards. This effort required extensive knowledge of the stroller market landscape, manufacturing methods and materials utilized within the stroller industry, and global child safety standards for strollers and child seats. This project produced some innovative concepts that I worked on integrating into some of BOB Gear's existing line of strollers. Some of this work included updating stroller suspension systems, improving stroller folding systems, and designing a new removable adapter system that could be used for cup holder trays and infant car seat adapters. My work at BOB Gear involved developing concepts in SolidWorks CAD software, producing physical prototypes, and then testing these concepts with a variety of popular infant car seat brands attached to the stroller. Tests I performed

were to check for general performance, ease of installation and removal of the adapters and car seats, compliance with domestic and international child safety standards, and ease of adapting to a variety of popular infant car seat brands. One test I performed multiple times involved placing the stroller on a flat surface that could be pivoted to increase the pitch and yaw angle until such point the stroller would start to tip over. The purpose of this test was to check for the center of gravity (CG) location and make sure the stroller would comply with global safety standards. I performed tests on the base stroller along with various brands of car seats and various types of stroller accessories. This test often involved placing a sandbag style weight in the infant car seat or stroller seat to simulate the weight of a child. These tests produced valuable results that allowed BOB Gear's engineering team to better understand how their design choices affected the stability of the stroller and its attachments. BOB Gear still produces the strollers that I helped design. I understand that BOB Gear is now owned by Britax Child Safety, Inc.

8. From March 2010 until March 2015, I worked for Raven Industries (now part of CNHi), first as a Project Manager and then as the North American Sales Manager. In those roles, I oversaw development and launch of multiple mechanical products.

9. From June 2015 until June 2016, I worked for POET Research as a

Mechanical Research Manager in the research and innovation group. POET Research develops and produces clean and renewable biofuels.

10. From August 2016 until the present, I have taught as a Lecturer at South Dakota State University in the Agriculture and Biosystems Engineering Department. I have taught and led the development of courses for undergraduate students that go on to receive Bachelor of Science degrees in Mechanical Engineering (ME), Agriculture Systems Technology (AST), Precision Agriculture (PRAG), and Agriculture and Biosystems Engineering (ABE). Examples of specific courses I lead and/or instruct include ABE 234 Digital Tools for Agriculture Engineers, ABE 314 Agriculture Power and Machinery; ABE 411/422 Capstone Design; ABE 350 Hydraulic Systems; ABE 464 Monitoring and Controls; AST 412 Fluid Power Technology; PRAG 304 Electrical Diagnostics of Farm Machinery; and AST 313 Farm Machinery Management.

11. I am a named inventor on multiple U.S. patents and applications, including: U.S. Patent Nos. 5,915,312, 6,047,652, 6,116,172, 6,386,127, 6,640,732, 6,644,223, 6,454,019, and U.S. Patent Application No. 13/842,326.

12. I am a member of multiple professional organizations, including the American Society of Mechanical Engineers (ASME) and American Society of Agricultural and Biological Engineers (ASABE).

13. A copy of my curriculum vitae is attached as Appendix A, which

contains further details regarding my experience, education, and other qualifications to render an expert opinion in connection with this proceeding.

II. Relevant Legal Standards

14. I have been asked to provide opinions on certain claims of the ’682 Patent (EX1010) in light of the prior art.

A. Anticipation

15. Counsel has advised me that for a patent claim to be valid, the claimed invention must be novel. Counsel has further advised me that if each and every element of a claim is disclosed in a single prior art reference, then the claimed invention is anticipated, and the invention is not patentable. For the invention to be anticipated, all of the elements and limitations of the claim must be shown in a single prior art reference, arranged as in the claim. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. For a reference to inherently disclose a limitation, that claim limitation must necessarily be present in the reference.

B. Obviousness

16. Counsel has also advised me that a claimed invention is unpatentable if the differences between the invention and the prior art are such that the subject matter as a whole would have been obvious at the time the alleged invention was

made to a person having ordinary skill in the art to which the subject matter pertains. I also understand that an obviousness analysis takes into factual inquiries including the level of ordinary skill in the art, the scope and content of the prior art, and the differences between the prior art and the claimed subject matter.

17. It is my understanding that the Supreme Court has recognized several rationales for combining references or modifying a reference to show obviousness of the claimed subject matter. Some of these rationales include the following: combining prior art elements according to known methods to yield predictable results; simple substitution of one known element for another to obtain predictable results; a predictable use of prior art elements according to their established functions; applying a known technique to a known device to yield predictable results; choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; and some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

18. I am informed that obviousness should not be determined using hindsight; rather, the inquiry must be from the perspective of a person of ordinary skill in the art at the time that the invention was made. I am informed that there is no requirement that the prior art contain an express suggestion to combine known

elements to achieve the claimed invention; a suggestion to combine known elements to achieve the claimed invention may come from the prior art as a whole or individually, and will be viewed in light of the knowledge of one skilled in the art. The inferences and creative steps a person of ordinary skill in the art would typically employ are also relevant to the determination of obviousness.

19. When a work is available in one field, design alternatives and other market forces can prompt variations of it, either in the same field or in another. If a person of ordinary skill in the art can implement a predictable variation and would see the benefit of doing so, that variation is likely to be obvious. When there is design need or market pressure and there are a finite number of predictable solutions, a person of ordinary skill in the art has good reason to pursue those known options.

20. It is my understanding that there is no rigid rule that a reference or combination of references must contain a "teaching, suggestion, or motivation" to combine references. But, I understand that a "teaching, suggestion, or motivation" can be a useful guide in establishing a rationale for combining elements of the prior art.

C. Priority

21. In order to determine whether a reference qualifies as prior art for a given patent claim, one must determine the applicable priority date for that patent

claim. I understand that in many cases the priority date is the actual filing date of the patent application or patent at issue. In certain cases, however, patent claims may be entitled to "priority" based on one or more earlier applications referenced on the face of the patent.

22. In order for a claim of a patent to be entitled to claim priority to an earlier filed application, I understand that the earlier filed application needs to have sufficient "written description" to support that claim.

23. When determining whether a specification contains adequate written description of the claimed invention, I understand that one must make an objective inquiry into the four corners of the specification from the perspective of a person having ordinary skill in the art ("POSITA").

24. Further, I understand that the standard for written description is stricter than the standard for determining whether or not a patent claim would have been obvious based on the prior art.

25. In particular, the question for purposes of written description is not merely whether the claimed invention is an obvious variant of what the specification discloses. Instead, the application itself must describe the invention, and do so in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the date when the specification was filed.

26. Similarly, I understand that the issue of written description is separate from the question of "enablement" (*i.e.*, whether a specification allows a person of ordinary skill to practice the claimed invention without undue experimentation). A specification may adequately enable a claimed invention yet fail to provide written description support.

27. Finally, I understand that the standard for whether or not a disclosure is sufficient to support a claim is different than the standard for whether a disclosure anticipates a claim. To support a claim, the description must be sufficient to convey to a POSITA that the inventors were in possession of the full scope of the claimed subject matter.

28. By contrast, a description anticipates a claim if it discloses even a single species within the scope of the claim. Thus, in the case of "genus" claims covering two or more different species, I understand that there can be situations in which a given disclosure is sufficient to anticipate the claim even though that same disclosure is not adequate to support the claim and entitle the inventors to an earlier priority date.

29. I understand that in order to claim priority to an application through a chain of applications, every single application in the chain (going back to the particular application on which the inventors want to rely) needs to support the claim as a matter of written description.

30. In other words, each application in the chain must allow a person of ordinary skill to discern that the inventors were in possession of the claimed invention at the time of the application.

III. Qualifications of A Person Having Ordinary Skill in the Art

31. I understand that a patent should be analyzed from the perspective of a POSITA at the time of the alleged invention. I have been informed that the factors considered in determining the level of ordinary skill of a POSITA include: (1) the educational level of the inventor; (2) the type of problems encountered in the art; (3) prior art solutions to those problems; (4) the rapidity with which innovations are made; (5) the sophistication of the technology; and (6) the educational level of active workers in the field. I understand that these factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art.

32. It is my opinion that a person of ordinary skill in the art 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. More education can replace product design experience, and vice versa. It is my opinion that this level of ordinary skill in the art would apply regardless of whether the date of alleged invention is around 2008 (the earliest claimed priority date) or later.

33. I meet or exceed these requirements for a POSITA. I have worked

with many POSITAs and can evaluate documents from their perspective.

IV. State of the Art

A. Overview of Strollers

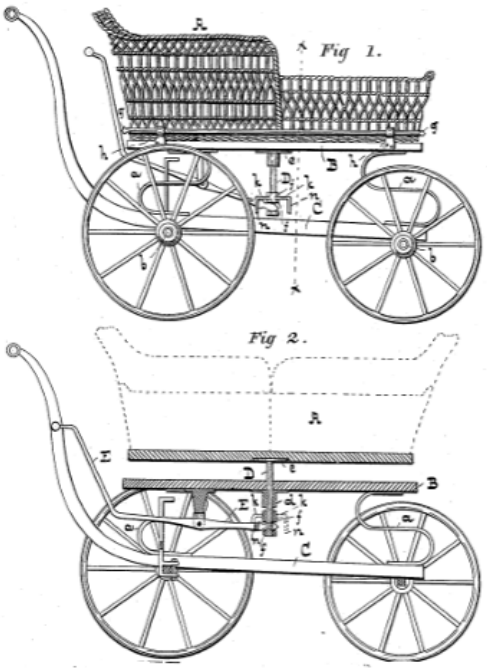
34. A stroller is a rolling device used to transport children. Strollers (also known as perambulators, pram, push chairs, or bassinettes) have existed for several centuries. (EX1025, Sewell, 716-728.) Samuel J. Sewell's article from the 1920s described some well-known aspects of stroller designs.

1. **Wheels** – including how the wheels could be detachable to allow the stroller to be folded. (EX1025, Sewell, 724.)
2. **Springs** – allowing for a smoother stroller ride. (EX1025, Sewell, 724-725.)
3. **Variable Bodies** – allowing for "folding, converting, adjusting and reversing" the body frame. (EX1025, Sewell, 725.) This allowed adjustability so the stroller allowed for one child to lie down while another child could sit (EX1025, Sewell, 725-726.)

35. Early designs for strollers put an emphasis on stopping the stroller from tipping over, preventing the child from falling out, or having the stroller roll away. (EX1025, Sewell, 724.)

36. Strollers include one or more seats to accommodate one or more children. The seat or seats may be fixed or movable. Strollers with a reversible seat have been around more than a century. In the 1880s, William Richardson designed

a reversible baby stroller that permitted the user to decide whether the child faced the user, or faced in the direction the stroller was pushed. (EX1026, U.S. Patent No. 405,600 ("Richardson").) U.S. Patent No. 405,600 also discloses how the stroller seat can be reversible in direction via rotation around a "king bolt."



> "In the invention described in the said application the body of the carriage, when elevated, may be rotated or turned entirely around on its axial king-bolt …."
>
> (EX1026, Richardson, 1:15-18 and Figs. 1, 2.)

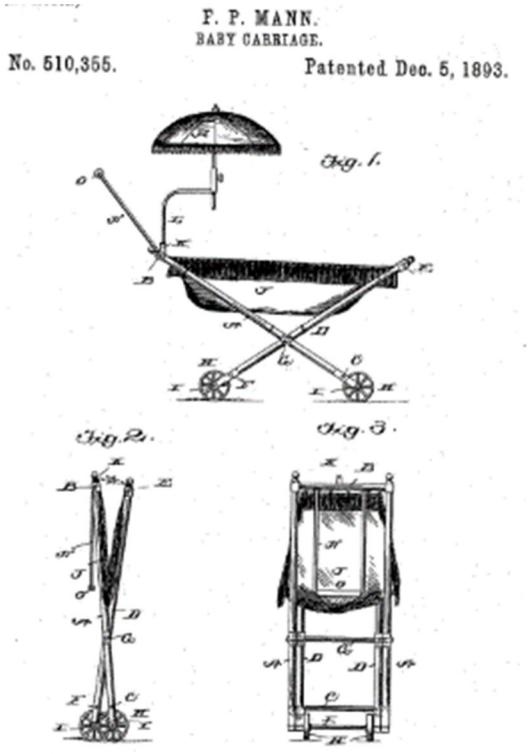
B. Basics of Stroller Structure

1. Basics of Stroller Structure

37. A stroller frame is the backbone of the stroller and supports the seat(s) and other components. Stroller frames are typically formed of metal or plastic. The frame will generally include a handlebar or push bar for pushing and steering the

stroller and three or more wheels. The handlebar is typically connected to, or integral with, a pair of longitudinal side members. One or more crossbars may connect between the longitudinal sides. The front wheel(s) may be directly or indirectly connected to the longitudinal side members. The rear wheels are usually connected to the longitudinal sides by one or more intermediary components.

38. The X-frame was an early design from the late 1890s and included two main crossbars in an "X" configuration. (EX1027, U.S. Patent No. 510,355.) A pivot point was located in the center of the "X" to allow the stroller to be collapsed for "compactness." (EX1027, U.S. Patent No. 510,355, ll. 22-31.)



EX1027, U.S. Patent No. 510,355, Figs. 1-3

39. Another well-known stroller frame design included an upper frame

tube and a lower frame tube joined together to form the longitudinal side members. (See *e.g.*, Exs., 1029, 1033, and 1040.) The joint between the upper and lower tube usually allowed movement between the upper and lower tube as explained in Exhibits 1029, 1033, and 1040.

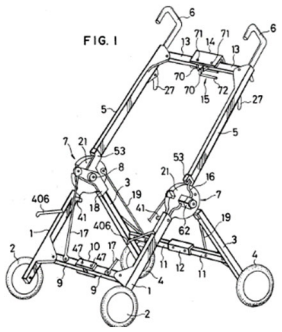
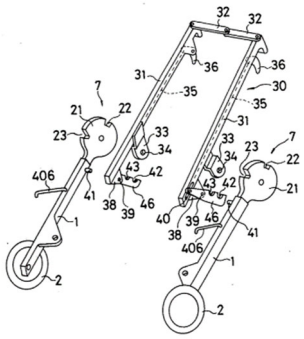


FIG. 5



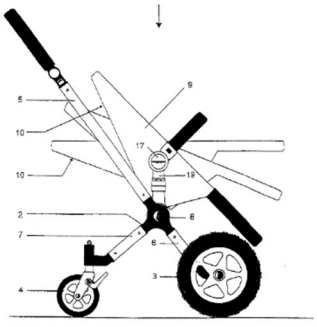


FIG. 1

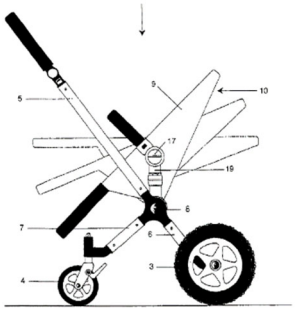


FIG. 2

The hammock supporting frame 30 comprises side links 31 and foldable-in-two back-rest connecting links 32 interposed between the upper ends of said links 31. Secured to relatively lower regions of the side links 31 are support frame pivotal mounts 33 having openings 34 for receiving the previously mentioned pivot pins 8 for the pivotal mounts 8, said hammock support frame 30 being pivotally supported with respect to the front legs 3 similarly to the push rods 5 and rear legs 3.

(EX1029, U.S. Patent No. 4,191,397, 4:26-35 and Figs. 1, 5.)

FIGS. 1 to 4 show the buggy 1, which comprises a frame 2 with front wheels 3 and rear wheels 4, a pull and push bar 5, front wheel bars 6 and rear wheel bars 7, which support the front wheels 3 and rear wheels 4 and which are connected to the pull and push bar 5 by means of a coupling device 8.

(EX1030, U.S. Patent No. 6,513,827 to Barenbrug, 2:50-55; Figs. 1, 2.)

40. A 2007 YouTube video for the "UPPAbaby Vista" stroller also

discloses a foldable frame having a U-shape bottom frame assembly.[1, 2]



EX1031, Holly Schultz Dec., EX2 at 21 secs.; 1 min. 18 secs.



EX1032, Declaration of Greg Allen, EX3[3] [4]

[1] See EX1031, Declaration of Hollie Schultz ("Hollie Schultz Dec."), ¶¶14-17.

[2] I understand the Ms. Schultz has provided a declaration confirming this video was uploaded and made publicly available without restrictions on YouTube on June 12, 2007.

2. Folding Mechanism

41. The foldability or collapsibility of child strollers is a common and well-known design element allowing strollers to be easily stored (e.g., within a trunk of a vehicle) or transportable when not in use. These developments were widely documented in the patent literature and demonstrated the industry's focus on balancing convenience with structural integrity.

42. By 2008, various folding mechanisms for child strollers existed. These included flat fold, umbrella fold/three-dimensional fold, two-piece fold, compact tri-fold, one-hand fold, one-touch fold, one-step fold, five-second fold, quick fold system, and standing fold. (EX1031, Hollie Schultz Dec., EX10–*The Baby Gizmo Buying Guide*, 284-286.)

43. Examples of "flat fold" mechanisms are described in U.S. Patent Nos. 7,641,216, 3,390,893, and 4,398,748. As shown below, these patents disclose a

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[3] See EX1032, Declaration of Greg Allen ("Greg Allen Dec."), ¶¶14-15; EX3–*How Sweet Is The iCandy Apple Stroller?* DaddyTypes Blog, (July 7, 2006) https://daddytypes.com/2006/07/07/how_sweet_is_the_icandy_apple_stroller.php

[4] I understand Greg Allen has provided a declaration confirming these images were uploaded and made publicly available without restrictions on his blog DaddyTypes on July 7, 2006.

stroller than can fold flat (*i.e.*, collapse upon itself) so as not to increase the footprint of the stroller when folded. These strollers use a folding joint between the upper and lower tubes of the longitudinal frame members.

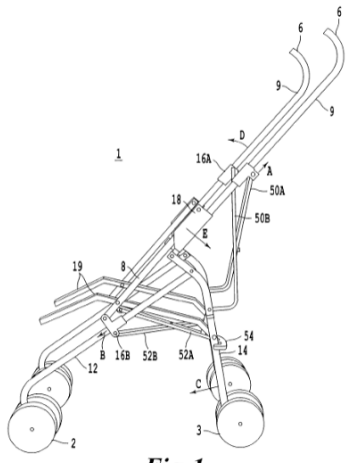


Fig.1

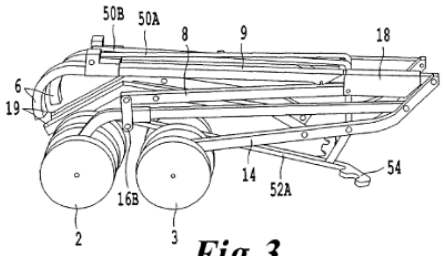
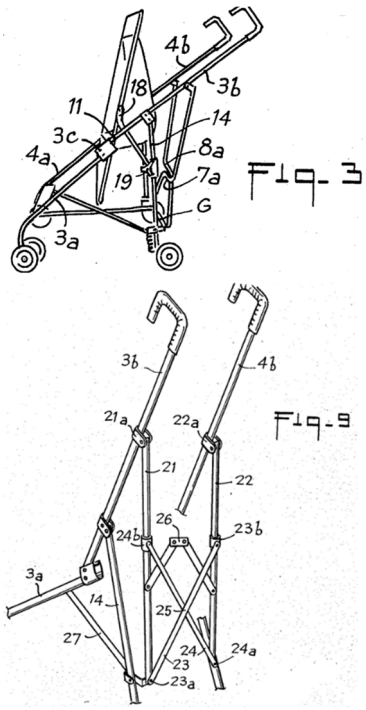


Fig.3

Exemplary aspects of the invention provide a method of folding a stroller including two handle frames, two front legs and two rear legs configured to support the stroller in an upright position, the front legs pivotally attached to respective rear legs, a chair portion, including a back rest, a seat and a leg rest pivotally attached to the seat, two pivot frames pivotally attached to respective handle frames, the back rest and the rear legs, two arm rests, and two sliders pivotally attached to respective pivot frames, the back rest, respective arm rests and the seat and configured to slide along the respective front legs.

(EX1033, U.S. Patent No. 7,641,216, 3:15-24 and Figs. 1, 3.)



[C]hild's stroller constituted by a frame 1 and a body 2 pivoted on the frame. The frame 1 comprises in known manner two lateral carrier elements 3 and 4, substantially parallel to each other, defining in unfolded position an inclined frontal plane. Each of these carrier elements 3 and 4 is composed of two parts 3*a*, 3*b*; 4*a*, 4*b*, articulated on one another (at 3*c* for the carrier element 3) so as to be foldable on themselves about this articulation.

(EX1034, U.S. Patent No. 4,398,748, 3:27-35 and Figs. 3, 9.)

44. These folding designs continue to be used in modern commercial products. For instance, foldable strollers available in 2007-2008 included the UPPAbaby Vista stroller, the Joovy Caboose stroller, the Mutsy 4Rider stroller, the Valco Baby TriMode stroller, the Dreamer Design Park Avenue stroller, the Graco Quattro Tour Duo stroller, and the Peg Perego Skate stroller—all featured in videos showing folding and unfolding on the Baby Gizmo YouTube channel.[5]

[5] See *e.g.*, EX1031, Hollie Schultz Dec., EX2–BabyGizmoCompany, *Baby Gizmo Uppa Baby Vista*, *YouTube*, https://www.youtube.com/watch?v=9IrmQs8kL5I (June 12, 2007); see also EX1031, Hollie Schultz Dec., ¶¶14, 18 (It is my



EX1031, Hollie Schultz Dec., EX2 at 2 mins. 10 secs.; 2 mins. 19 secs.

45. The folding mechanisms include an associated actuator, such as a button or pull strap, that is operably coupled thereto and releases the locks of the folding mechanism, allowing the stroller to be folded. An example of this is disclosed in U.S. Patent Publication No. 2008/0238042 (EX1035.)

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understanding that paragraph 18 mistakenly identifies the Uppa Baby Vista stroller as the Baby Planet Unity Sport Double stroller).

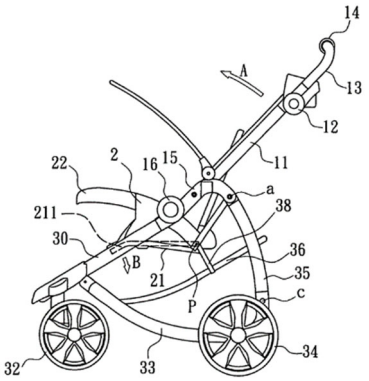


Fig.5A

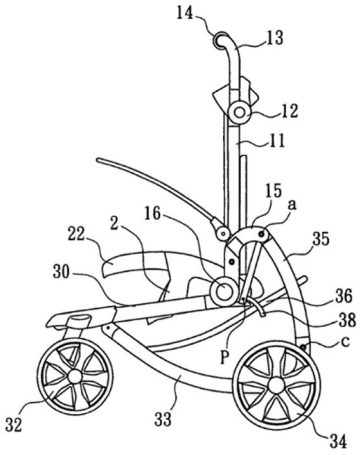


Fig.5B

The stroller shown in FIG. 5A is in a fully expanded state and when the stroller needs to be collapsed, the user first operate **the collapsing operation device 14** disposed on the handle 13 to actuate the locking member (a first locking device) disposed on the upper frame tube 11 or the connecting member 15 to cause the upper frame tubes 11 unlocked from the front legs 30 and thus the upper frame tubes 11 and the handle 13 is able to pivot forwardly about the connecting seat 16 toward the front legs 30 (as indicated by arrow A), and the front legs 30 in turn pivot downwardly toward the base frame tubes 33 (as indicated by arrow B) and into a state in which they are substantially parallel to the supporting tubes 211 of the seat portion 21 of the seat unit 2 (i.e., the biasing spring 50 is not twisted), as shown in FIG. 5B.

(EX1035, U.S. Patent Publication No. 2008/0238042, ¶0034 (emphasis added) and Figs. 5A, 5B.[6])

3. Stroller Wheels

46. It is also well known that strollers may include any combination of front and rear wheels. The number of wheels and location are not design critical and are typically chosen to comply with other more critical aspects of the design.

[6] All emphasis is added unless stated otherwise.

> **The number of wheels is irrelevant**; you're looking for a good turning radius, easy maneuverability, and quality wheels.

(EX1031, Hollie Schultz Dec., EX10–*The Baby Gizmo Buying Guide*, 291.)

47. Most strollers include two wheels (or wheel pairs) in the rear, whereas the front varies with common configurations being one, two, or three wheels (or wheel pairs). For instance, jogging strollers commonly have a single, large front wheel. (EX1031, Hollie Schultz Dec., EX10–*The Baby Gizmo Buying Guide*, 324-325.) In contrast lightweight/umbrella strollers come in both three-, four-, or other multi-wheel variants. (Exs. 1040 (three wheels), 1029 (four wheels), 1033 (eight wheels).) Designers have long understood the pros and cons of different wheel sizes, placements, and configurations; therefore, choosing among them is a routine exercise for stroller designers.

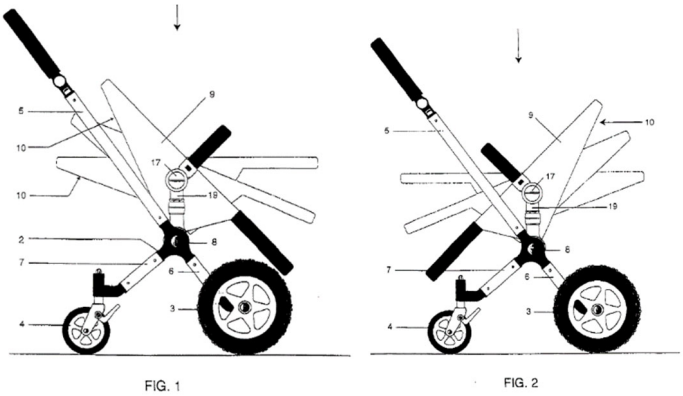
4. Rotatable and Detachable Seats

48. Another known design aspect of strollers—both single and doubles—is the ability to have one or both seats be detachable/reversible thereby providing various functionality for the stroller.

49. As I previously discussed, U.S. Patent No. 405,600 describes a stroller having a rotating carriage that allowed the child to face forward or backward. (EX1026, Richardson, 11:54-58.)

50. U.S. Patent No. 6,513,827 ("'827 Patent") (EX1030, Barenbrug) is a

more modern example of a stroller having a reversible seat. Unlike earlier designs, the seat of the ’827 Patent is completely detachable from the frame to allow for reversal.



EX1030, Barenbrug, Figs. 1-2

51. The design disclosed in the ’827 Patent proved to be a commercial success and has been widely copied. The assignee of the ’827 Patent, Royalty Bugaboo Sarl, is a well-known stroller manufacturer that came to market in the United States in the early 2000s as the commercial “Bugaboo” stroller line.

52. The success of the Bugaboo design (which was commensurate with the embodiments disclosed in the ‘827 Patent) resulted in other stroller manufacturers launching similar designed strollers. (See *e.g.*, EX1032, Greg Allen

Dec., EX1[7].)

53. Other strollers having detachable seats became available in 2007-2008. For example, the UPPAbaby Vista stroller, the Mutsy 4Rider stroller, and the Dreamer Design Park Avenue stroller all featured detachable and rotatable seats. The Baby Gizmo YouTube channel includes many videos showing how the seats of these strollers could detach, rotate, and reattach. (*See* EX1031, Hollie Schultz Dec., ¶¶14, 24, 41 and EXS 2, 4, 7.)

54. Double strollers may also have reversible and detachable seats. For example, U.S. Patent No. 6,086,087 to Yang (EX1037) shows a double tandem stroller with a front seat facing forward, facing backward, and a removable back seat.

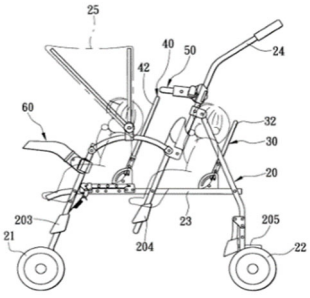


FIG. 12

FIG. 12 illustrates the preferred embodiment in a first state of use. As shown, the detachable seat member 40 is mounted on the stroller frame 20 such that the child to be seated thereon can face forwardly.

(EX1037, Yang, 6:51-54, Fig. 12.)

[7] EX1032, Greg Allen Dec., ¶7; EX1–*In The Beginning was the Bugaboo*, DaddyTypes Blog, (Sept. 13, 2004) https://daddytypes.com/2004/09/13/in_the_beginning_was_the_bugaboo.php.

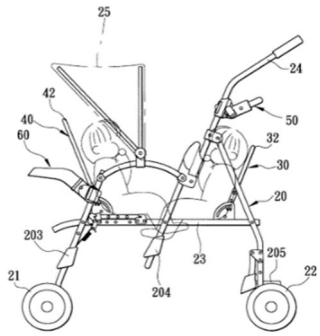


FIG. 13

FIG. 13 illustrates the preferred embodiment in a second state of use. As shown, the detachable seat member 40 is mounted on the stroller frame 20 such that the child to be disposed thereon can sit in a face-to-face relationship with another child seated on the non-detachable seat member 30.

(EX1037, Yang, 6:55-59, Fig. 13.)

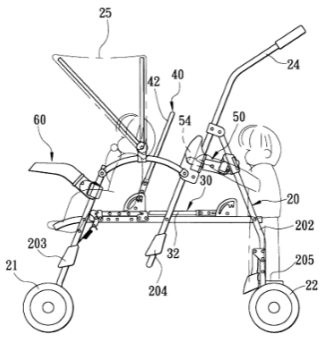


FIG. 14

FIG. 14 illustrates the preferred embodiment in a third state of use. As shown, the detachable seat member 40 is mounted on the stroller frame 20 such that the child to be seated thereon can face forwardly.

(EX1037, Yang, 6:60-63, Fig. 14.)

55. Another example may be seen in U.S. Patent No. 5,338,096 to Huang (EX1036), showing the front seat capable of being locked in a forward position or backward position.

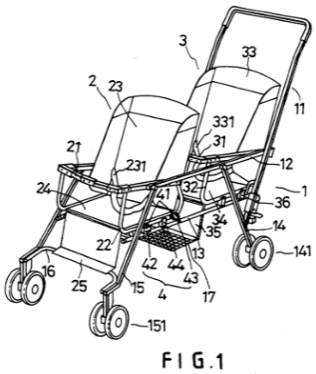


FIG.1

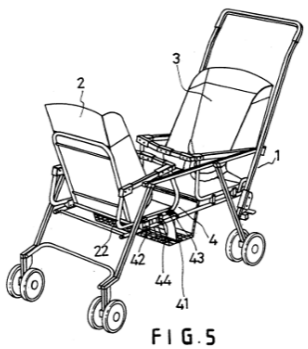


FIG.5

This invention has been devised to offer a double stroller with a front seat capable to be turned around to face a rear seat so that two babies sitting on the two seats may play with each other.

(EX1036, Huang, U.S. Patent No. 5,338,096, 1:15-18, Figs. 1, 5.)

56. Further, there were commercial products available before late 2008 that had rotatable and detachable seats. For example, the Kolcraft Contours

Options Tandem stroller had reversible seats capable of being oriented so either (A) both seats faced the parent, (B) both seats faced away from the parent, (C) the seats faced each other, (D) the seats were oriented back-to-back, or (E) only one seat was attached. (EX1038, Kolcraft Contours Options Tandem Instruction Sheet, 15[8] (obtained from https://web.archive.org/web/20081010100559/http://common.csnstores.com/common/marketing/baby/kolcraft/cnt1016instruction.pdf., Oct. 10, 2008), EXA to Affidavit of Christopher Butler.)



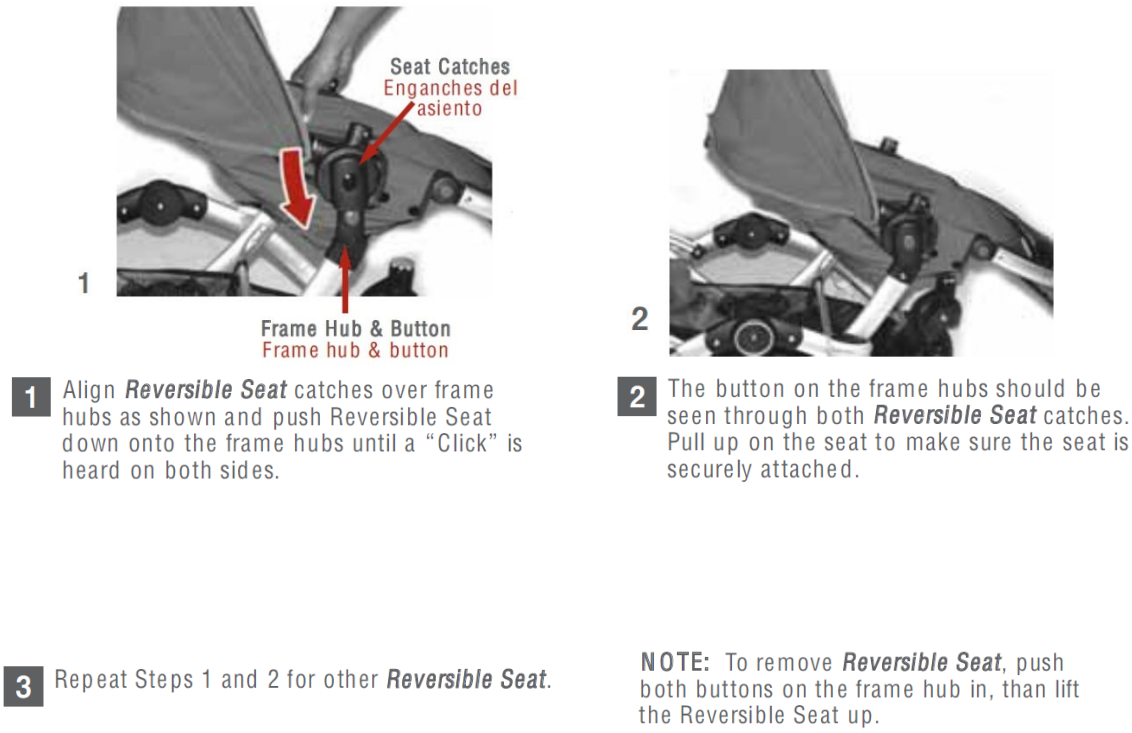
EX1038, Kolcraft Contours Options Tandem Instructions, Cover Page



EX1038, Kolcraft Contours Options Tandem Instructions, 15

[8] Referenced page numbers are those found in the middle of each page directly below the instruction images.

57. The Kolcraft Contours Options Tandem instructions also disclosed how to attach the reversible seats to the frame:



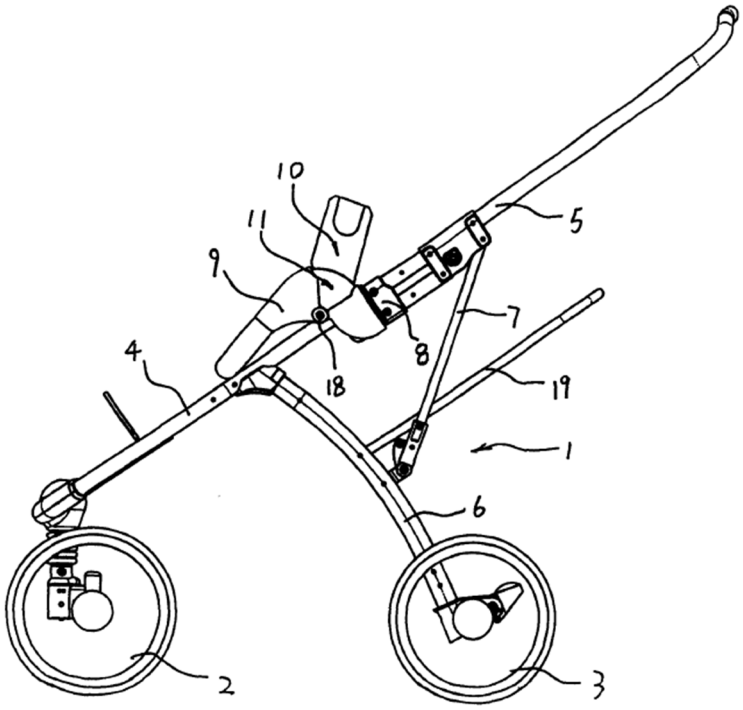
EX1038, Kolcraft Contours Options Tandem Instructions, 15-16

58. Another design for detachable seats is disclosed in Chinese Patent No. CN2778636Y ("Feng") (EX1053). Feng was filed in China on December 24, 2004 and published on May 10, 2006. (EX1053, 1, 9.)

59. Counsel has provided me with a certified translation of CN2778636Y into English. (EX1053, Feng, 9-19.) Unless otherwise noted all citations of text are based on the Feng certified translation.

60. Feng discloses a stroller having a stroller frame, front wheels, and rear wheels. (EX1053, Feng, Abstract, 9.) The stroller frame has the typical design of

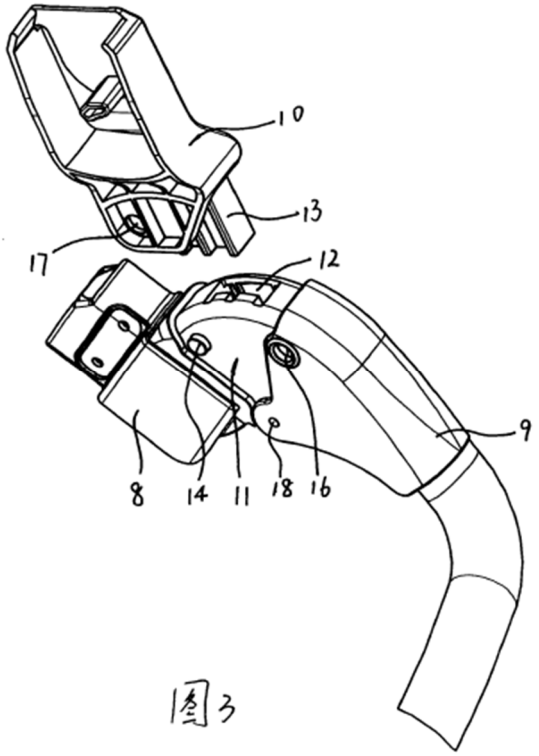
left and right parallel side frame members and a rear wheel bracket 6 coupled to and extending rearwardly from the left and right parallel side frame members. (EX1053, Feng, 13, ll. 18-25, Fig. 1.) Each of the side frame members includes lower and upper frame members 4, 5 coupled by a folding mechanism. (EX1053, Feng, 5, ll. 18-25, Fig. 1.)



EX1053, Feng, Fig. 1

61. The stroller has a primary seat (fabric not shown) including a backrest frame 19 for supporting the primary seat. (EX1053, Feng, 13 ll. 11-16, Fig. 1.) An infant car seat 20 is removably coupled to the stroller frame by a seat fixture 10. (EX1053, Feng, 14, ll. 21-23, Fig. 4.) The seat fixture 10 having insertion pieces

13 that are receivable in slots 12 defined in fixing components 11. (EX1053, Feng, 13, ll. 11-15, 14, ll. 17-20.) This allows the seat fixtures to be removed when the infant seat 20 is not being used with the stroller.



EX1053, Feng, Fig. 3

C. Stroller Types

62. Considering the state of the art of the stroller industry as of late 2008, the stroller market could be subdivided into the following general categories: carriages, single standard strollers, travel systems, lightweight-plus strollers, lightweight/umbrella strollers, luxury stroller systems, all-terrain strollers, jogging strollers, double standard strollers, double lightweight/umbrella strollers, double all-terrain strollers, double jogging strollers, strollers-and-a-half, and multiples

strollers. (EX1031, Hollie Schultz Dec., EX10– *Buying Guide*, 279-281.) I summarize these design types below.

1. Single Strollers

63. Single-seat strollers, designed for transporting one child at a time, have been a staple for parents for decades. These strollers offer a compact and convenient solution for caregivers, allowing for easy navigation through crowded spaces and narrow pathways. While families with multiple children often own more than one single-seat stroller, managing multiple strollers simultaneously can be impractical for a single caregiver. As a result, the single-seat stroller remains the go-to option for parents prioritizing individualized attention and mobility for a single child. There were numerous issued patents and commercial products (e.g., Bugaboo and iCandy) that exemplified the common nature of these stroller designs.

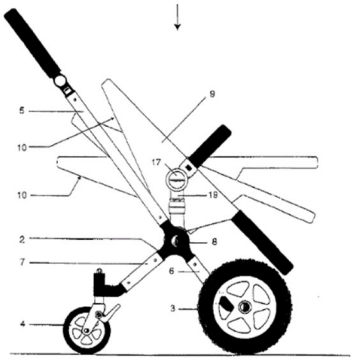


FIG. 1

EX1030, Barenbrug, Fig. 1



EX1032, Greg Allen Declaration, EX1–Bugaboo Stroller



EX1032, Greg Allen Declaration, EX3–iCandy Apple Stroller

2. Double Strollers

64. Double strollers for transporting more than one child at a time were also well known by 2008. Many parents with multiple children have two or more single strollers, but it is cumbersome for one person to safely push and control multiple strollers simultaneously. To address the need to transport more infants,

multi-child strollers were developed. One of the earliest examples of a double stroller may be seen in U.S. Design Patent No. 162,495 granted in 1951:



U.S. Design Patent No. 162,495, Fig. 1

65. Double strollers can generally be split into two main types: side-by-side orientation of the seats and tandem orientation of the seats.

a. Side-by-Side Double Strollers

66. The side-by-side configuration places two seats next to each other, which may be ideal for families with twins or children of similar ages. Side-by-side strollers provide both children with an equal view and experience, often making them wider and harder to maneuver in narrow spaces. (EX1031, Hollie Schultz Dec., EX10–*The Baby Gizmo Buying Guide*, 330.)

67. Exemplary side-by-side double strollers include U.S. Design Patent No. D382,516:



U.S. Design Patent No. D382,516, Fig. 1

b. Tandem Double Strollers

68. A tandem-configured double stroller positions one child behind the other, significantly reducing the stroller's overall width compared to side-by-side designs. This configuration allows parents to navigate narrow doorways, crowded sidewalks, and other tight spaces more easily, making it a popular choice for urban environments.

69. Tandem strollers often feature seats that can be adjusted independently, providing flexibility in positioning each child for comfort and convenience. Some models also offer options to reconfigure the seats to face each other or the parent, adding versatility.

70. An exemplary tandem double stroller is disclosed in U.S. Patent No 5,911,432 to Song.

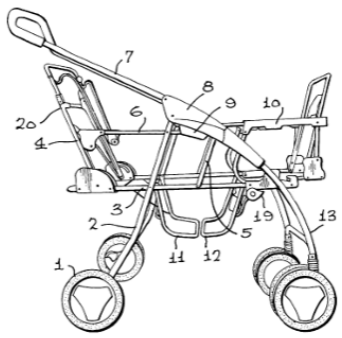
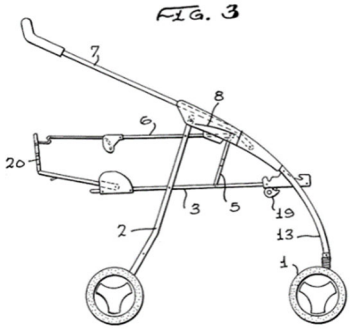


FIG. 1

This invention is directed to a baby carriage which can be easily switched from two seats to one seat and vice versa without making it difficult to fold the carriage.

(U.S. Patent No 5,911,432, 1:18-20 and Fig. 1.)

FIG. 3



Because the front seat is connected to the carriage frame through a locking device and can be removed from the carriage frame by unlocking the locking device, this two seat carriage can be easily converted into a one seat carriage. The additional space created when the two seat carriage is converted into a one seat carriage allows the remaining seat to be adjusted to permit the child to lie flat in the seat.

(U.S. Patent No 5,911,432, 1:49-56 and Fig. 3.)

71. Tandem strollers can be sub-divided further into a sub-category called "stadium seating" tandem strollers. In contrast with Song, which shows each of the two seats at the same horizontal level, stadium seating places the children at different heights from the ground, allowing both children to have unobstructed views.

Tandem Seating

The most popular seating arrangement in double strollers is the tandem, where one seat sits in front of the other. Many tandems go one step further and offer stadium seating, giving the little guy in back a view from the top. Tandem strollers are usually very stable, but can be a nightmare to maneuver. To make things easier, you should load the heaviest weight in the back seat, over the



back wheels. While many manufacturers recommend placing an infant car seat carrier in the rear seat for safety (presumably so you can be closer to your baby), if you have a heavier toddler, this arrangement can be almost impossible to push. Many tandems only offer a full recline on the back seat, which is a total pain, because everyone wants to kick back sometimes. We look for tandems that allow both seats to recline. Many newer tandem strollers allow you to reverse the direction each seat faces independently, so your children can see where they're going, look at you, or even face each other.

EX1031, Hollie Schultz Dec., EX10
***The Baby Gizmo Buying Guide*, 329-330**

72. Tandem stadium-style double strollers may have the seats directly attached to the main frame of the stroller. For example, French Patent 2,615,155 to Boidin that issued in 1987. (EX1039.)

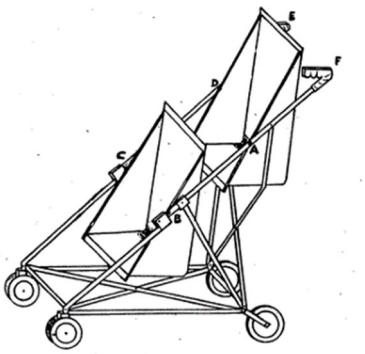


FIGURE 2

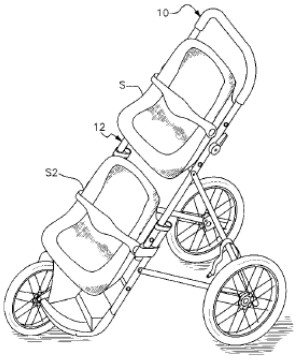
This stroller has two seats located on the same chassis at different heights.

(EX1039, FR 2,615,155, ¶0003 and Fig. 2.[9])

73. Another example of a tandem stadium-style double stroller is U.S.

[9] EX1039 is a non-certified translation of French Patent 2,615,155 to Boidin.

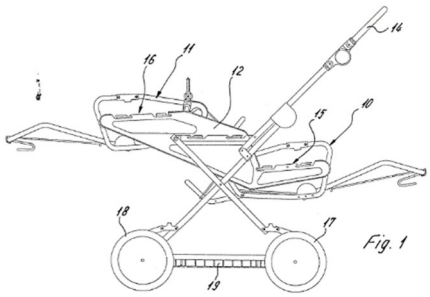
Patent No. 6,209,892 to Schaaf that issued in 2001 (EX1040.)



It is a further object of this invention to provide a baby stroller for twins and other multiple numbers of children that supports the babies vertically with respect to one another such that the stroller is conveniently maneuverable and the babies' observation positions can be readily adjusted when desired.

(EX1040, Schaaf, 2:27-32, Fig. 10.)

74. Some tandem double strollers include a subframe structure attached to the stroller frame to which two seats may be attached in a stadium-style orientation. An example may be seen in EP 0980810 to Gotting and assigned to stroller manufacturer Britax, which issued in 1998. (EX1041.)



In a preferred embodiment, the seats are attached to two adapters on the sides of the frame. These adapters are designed such that they can be mounted in two positions, to obtain the above possibilities for overlapping the seats.

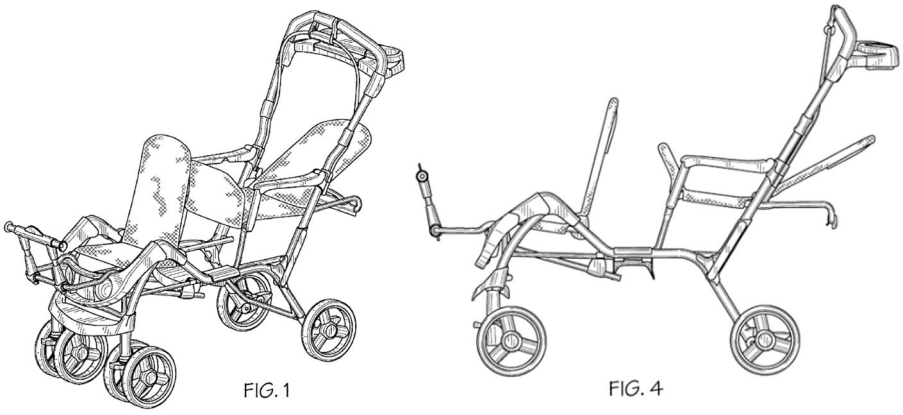
(EX1041, EP 0980810, ¶0007 and Fig. 1.)

75. Another example is the commercial “Bebe Confort” which was introduced in 2004.

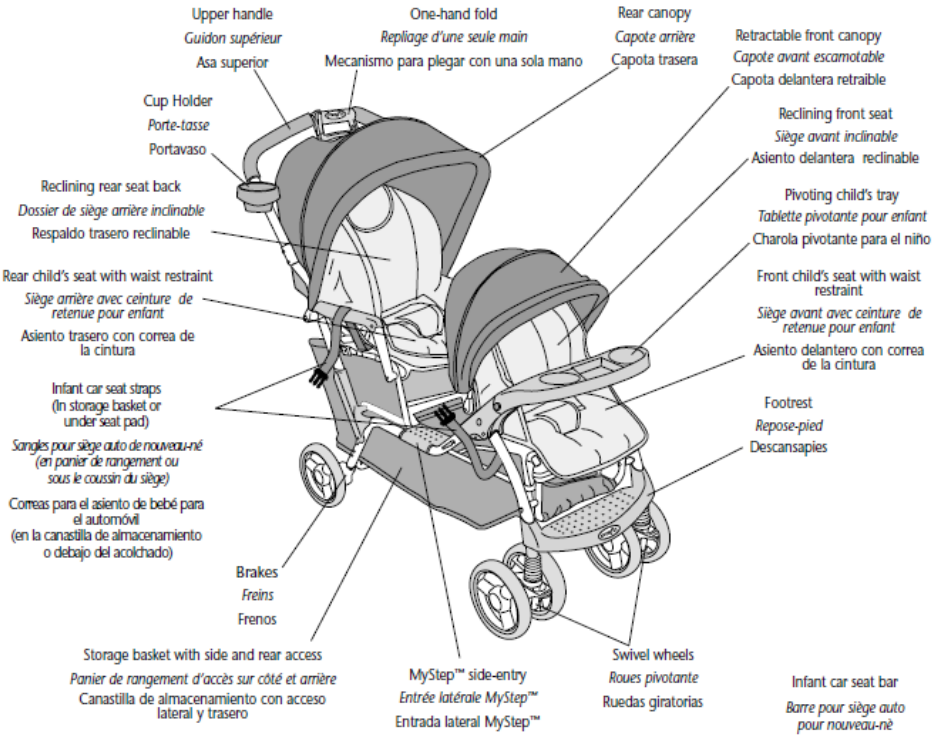


EX1032, Greg Allen Dec., EX2–*Bebe Confort Twin Stroller*

76. Another example of a tandem double stroller is disclosed in U.S. Design Patent 514,036, which was granted in 2006 and is assigned to Evenflo Co. Inc. (EX1042.) As seen in the Figures of U.S. Design Patent 514,036, the front seat is oriented at a lower vertical position than the back seat. A 2004 stroller by Evenflo called the "Take Me Too" illustrates a commercial version of a tandem double stroller.



EX1042, U.S. Patent Design 514,036, Figs. 1 and 4



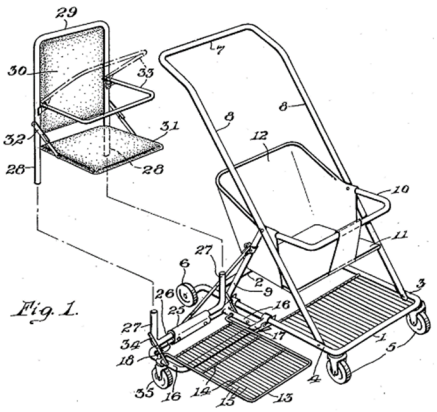
EX1043, Take Me Too Manual, 1

77. Each of these strollers demonstrate how stadium-style seating can be achieved through variations in frame structure and seat attachment mechanisms and that these designs were well known by at least 2008. These designs illustrate different approaches to elevating one seat relative to the other to provide improved visibility and accessibility for the child seated in the rear position and underscore the evolution of double tandem stadium strollers before 2008. This plethora of example stadium style seating prior to 2008 underscores that mixing and matching various features of these disclosed designs was merely routine design work to a POSITA by 2008.

3. Single-to-double or Double-to-triple Strollers

78. By 2008, designs for strollers capable of converting from a single stroller to a double stroller upon the birth of a second child were well established in the art. These convertible stroller designs provided a practical solution for growing families, offering flexibility and cost savings by eliminating the need to purchase a separate double stroller. Typically, such strollers featured modular systems that allowed for the addition of a second seat or a ride-along platform, enabling parents to adapt the stroller to their changing needs. Designs for single-to-double strollers included attachments intended to convert any single stroller into a double stroller, while other strollers were specifically designed to expand from a single to a double.

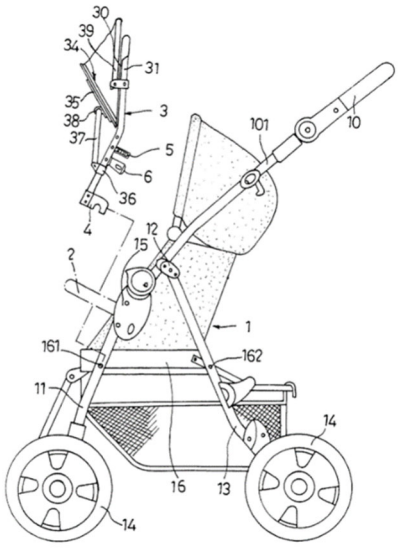
79. Single-to-double strollers that attached a second auxiliary seat were well known in the art to create a tandem stroller. For example, U.S. Patent No. 3,000,645 to Schmidt disclosed a removably attachable second seat attachable to the side of the stroller, creating a side-by-side orientation of the children.



A further object, therefore, is to provide the combination of any well known form of baby carriage with a readily attachable and detachable auxiliary vehicle, which preferably is supported at its outer free edge portion by a single wheel, and otherwise essentially comprises a platform capable of satisfactorily supporting one or more children other than the occupant of the baby carriage, and upon which may be readily mounted a preferably detachable seat[] … .

(U.S. Patent No. 3,000,645, 1:20-28 and Fig. 1.)

80. Other single-to-double strollers attached a second seat in front of the first seat to create a tandem stroller. For example, U.S. Patent No. 6,045,145 to Lan discloses a stroller and an auxiliary seat unit mountable to the stroller. (EX1044.)


FIG. 1

Referring to FIGS. 1 and 3, the auxiliary seat unit 3 is to be mounted on a front side of the main frame 1, and generally includes an auxiliary frame 31, a seat portion 34, and a support frame member 37.

(EX1044, U.S. Patent No. 6,045,145, 2:22-25 and Fig. 1.)

Referring to FIG. 4, the locking unit 5 includes a pair of hollow locking seats 151 formed on inner sides of the connecting seats 15, and a pair of first insert members 51 mounted pivotally and held frictionally on the mounting posts 312 of the auxiliary frame 31 by means of a pair of pivot pins 52. Each of the locking seats 151 is formed with an insert hole 153 which opens forwardly, and has a side wall formed with a locking opening 155 communicated with the insert hole 153. Each of the first insert members 51 is insertable into the insert hole 153 of a respective one of the locking seats 151, and is formed with a resilient locking protrusion 511

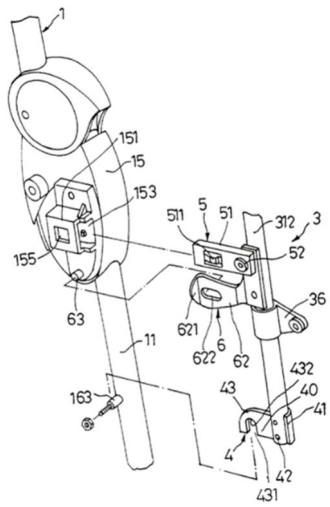


FIG. 4

which extends through and which engages the locking opening 155 when the first insert member 51 is inserted into the respective locking seat 151, thereby preventing undesired removal of first insert members 51 from the locking seats 151. The auxiliary seat unit 3 can thus be mounted on the front side of the main frame 1. The locking protrusions 511 are depressible for retraction into the locking seats 151 to permit release of the first insert members 51 from the locking seats 151.

(EX1044, U.S. Patent No. 6,045,145, 3:13-32 and Fig. 4.)

81. A commercial stroller design by iCandy included a conversion kit or subframe that allowed a single-seat stroller to be converted for use as a double-seat stroller. This subframe assembly would use the existing connection mechanism that existed when the stroller was used solely as a single-seat stroller. As shown below right, the subframe would then connect to the stroller frame allowing for either one or two seats to then be connected (shown below middle).



EX2025, Greg Allen Dec., EXS 3 and 5

4. Travel Systems

82. Travel stroller systems allow a compatible infant car seat to be securely attached to the stroller frame. These systems allow parents to use the stroller frame with an infant car seat during the early months and transition to a standard stroller seat as the child grows. This design is often marketed as providing convenience for caregivers because it proports to enable seamless transitions between a vehicle and the stroller without disturbing the child. In practice, some of these systems are easier to use than others.

83. The basic travel stroller system offered was a standard single or double stroller with one or two seats for children and the ability to either directly or indirectly attach and secure an infant car seat to the stroller frame. Strollers that allowed for direct attachment of an infant car seat are disclosed in U.S. Design Patent No. 429,476 assigned to Graco Children's Products, Inc. (See also U.S. Design Patent No. 430,076.) Design Patent No. 429,476 is shown below:

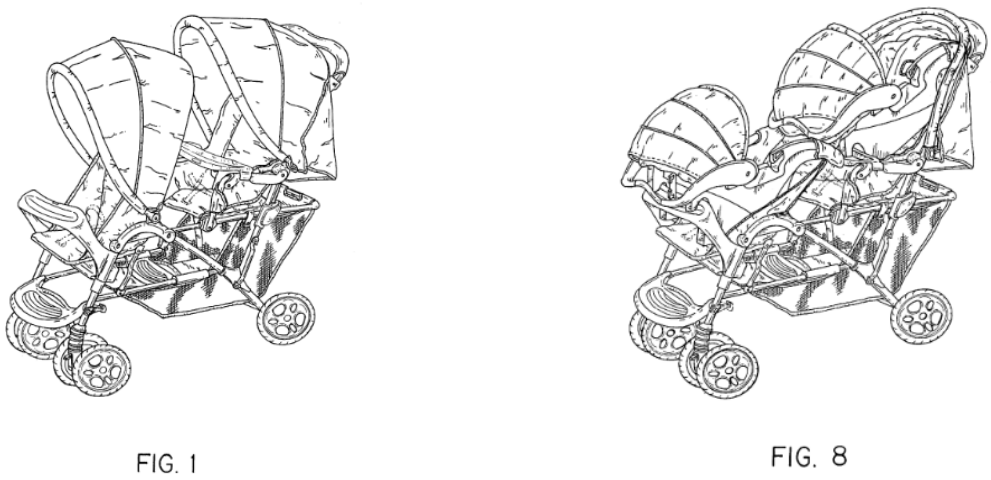
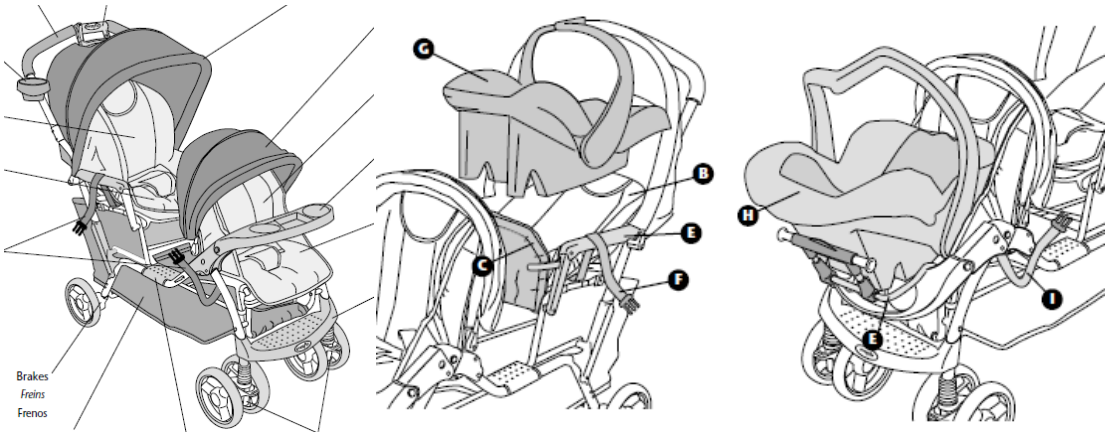


FIG. 1 FIG. 8

U.S. Design Patent No. 429,476, Figs. 1 and 8

84. Exemplary commercial products include the Evenflo Take Me Too (EX1043, Evenflo Take Me Too Manual, Oct. 2004,) which each allowed for placement of an infant car seat over the back seat, or over the front seat.



EX1043, Evenflo Take Me Too Manual, 1, 13, 14

85. Strollers designed for indirect attachment of an infant car seat typically required the use of an infant seat adapter. Once installed, the adapter enabled users to securely attach the car seat to the stroller frame, providing a stable and reliable connection. For example, U.S. Patent No. 5,794,951 to Corley

discusses use of auxiliary attachments to install prior to infant car seat installation (EX1045.)

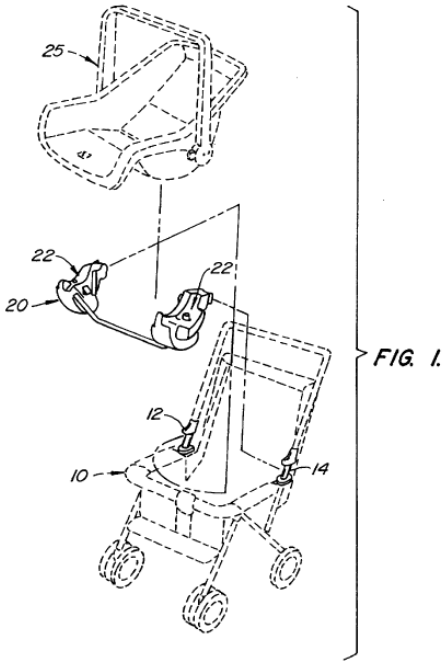


FIG. 1.

Turning now to the drawings, FIG. 1 is an exploded perspective view illustrating the latching mechanism of the invention as applied to a combination child's car seat and stroller combination. As seen in this figure, a stroller shown in broken lines in part and generally designated with reference numeral 10 has a pair of support posts 12, 14 incorporated into the frame structure of the stroller 10. As described more fully below, support post 12 functions as a latch support post while support post 14 functions as a pivot support post.

(EX1045, U.S. Patent No., 5,794,951, 2:35-44 and Fig. 1.)

86. Related to travel systems, stroller frames designed exclusively for use with an infant car seat were also widely commercially available by 2008. These lightweight and compact frames served as a minimalist solution for parents seeking a convenient and portable option during the early stages of their child’s life. The frames typically featured universal adapters or brand-specific compatibility, allowing the infant car seat to securely click into place. Once the child outgrew the infant car seat, these frames were often retired, making them a short-term but practical investment for newborns and infants.

87. Stroller frames containing attachments for car seats were available on the market by 2008. For example, the Bebe Confort was commercially available and offered for sale before 2008 (EX1032, Greg Allen Dec., ¶¶10-11 and EX2.)[10]



EX2025, Greg Allen Dec., EX2

88. Each of these strollers demonstrate how stadium-style seating can be achieved through variations in frame structure and seat attachment mechanisms. These designs illustrate different approaches to elevating one seat relative to the other to provide improved visibility and accessibility for the child seated in the rear position and underscore the evolution of double tandem stadium strollers before 2008.

89. Another known travel system was the "Vista" stroller which was designed by Uppababy and commercially available by June 2007. (See EX1031, Declaration of Holly Schultz, ¶¶14-18.)

[10] *Bebe Confort Twin Club Looks Great*, DaddyTypes Blog, (Sept. 24, 2004) https://daddytypes.com/2004/09/24/bebe_confort_twin_club_looks_great.php



See Youtube video at: https://www.youtube.com/watch?v=9IrmQs8kL5I[11]

90. On September 10, 2008, Uppababy introduced a device called the "RumbleSeat" which could be the Vista stroller at the ABC Kids Expo in Las Vegas. The RumbleSeat was an optional seat assembly connectable to the Vista to provide a dual-seat configuration. (EX1032, ¶¶30-34; EX7.)

> Though the details are still shrouded in flash glare--or cropped out of the photo entirely, Pish Posh Baby has the scoop from ABC Kids Expo in Las Vegas, where Uppa baby debuted a poster of a removable underseat seat for their flagship stroller, the Vista. The RumbleSeat allows you to stack your kids Phil & Teds-style, only they're facing toward you, so it's totally different.

[11] This "YouTube" link was provided in the June 12, 2007 post on the Baby Gizmo YouTube channel (*See* EX1031, ¶14 and EX2.)

(EX1032, EX7, 46.)



EX1032, Greg Allen Dec., EX7



See https://www.flickr.com/photos/24570716@N06/2844563925/[12]

91. According to the 2008 blog post, the RumbleSeat was a removable "underseat … for [Uppababy's] flagship stroller, the Vista." (EX1032, EX7, 46) that was connected to the lower tubes of the frame. As I have annotated below, attached to the ends of the U-shape frame were right and left beige/black brackets that allowed the RumbleSeat to be removably coupled to the right and left support members of the frame (see red circles). Each of the brackets included a receptacle

[12] This "Flickr" link was provided in the September 2008 post by daddytypes (See EX1032, ¶33 and EX7, 46.)

located on the top of the bracket for receiving the corresponding end of the U-shaped frame therein. The lower portion of each bracket was configured to couple with the lower tube of the frame.



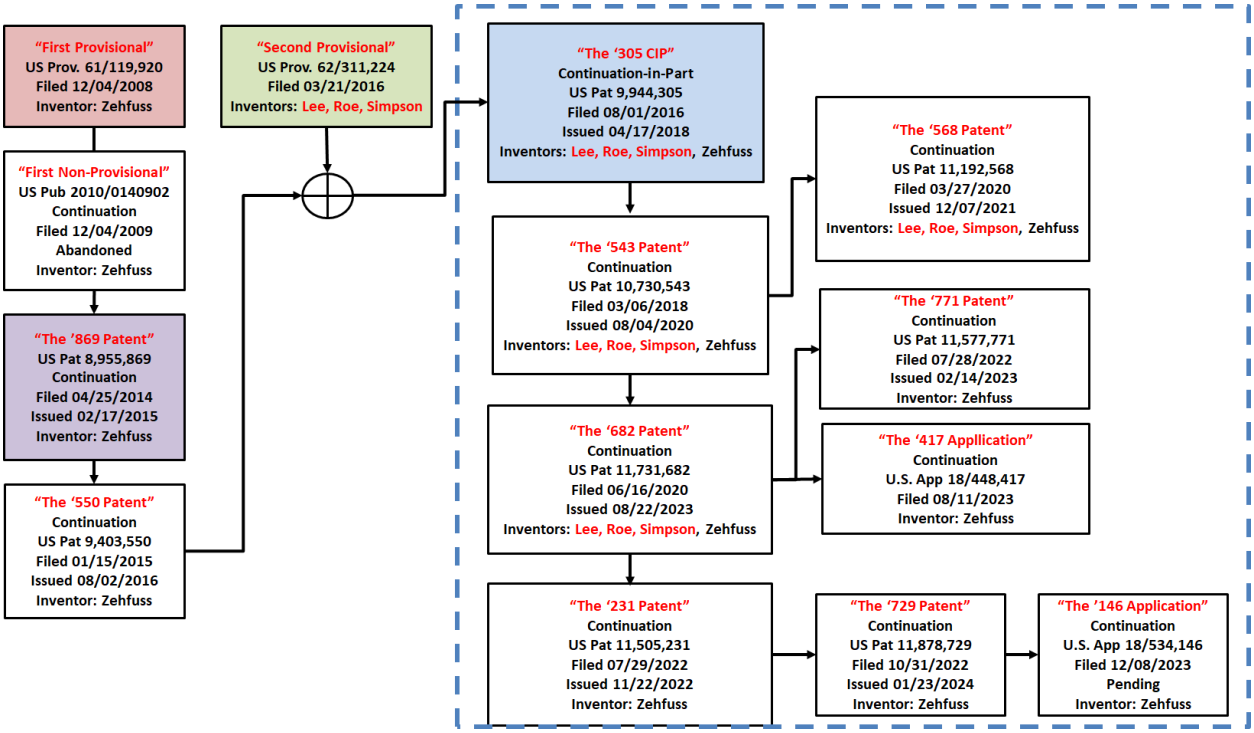
Uppababy Rumbleseat (Annotated)

V. Overview of the Baby Jogger Patent Family

92. The Baby Jogger family of related patents is illustrated below. I understand a December 4, 2008 application ("First Provisional") and a December 4, 2009 original application ("First Non-Provisional") named only Mark Zehfuss as the inventor.

93. But a March 21, 2016 second provisional application ("Second Provisional," shaded in green) and a subsequent August 1, 2015 continuation-in-part application ("the '305 CIP," shaded in blue), identified Mr. Zehfuss ***and*** three

new inventors—John Lee, Megan Roe, and Noel Simpson.



'682 Patent Family

A. "The First Provisional"

94. As shaded in red in the above graphic, the Baby Jogger Patent Family begins with the December 4, 2008 filing of U.S. Provisional Patent Application No. 61/119,920 (EX1002, "the First Provisional"). (EX1010, '682 Patent, 1:17-34.)

95. The First Provisional lists Mark Zehfuss as the sole inventor.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
61/119,920	12/04/2008		110	DYN005		

CONFIRMATION NO. 6909

6980
TROUTMAN SANDERS LLP
600 PEACHTREE STREET , NE
ATLANTA, GA 30308

FILING RECEIPT

OC00000003821601

Date Mailed: 01/02/2009

Receipt is acknowledged of this provisional patent application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

MARK ZEHFUSS, Residence Not Provided;

Power of Attorney: None

EX1002, First Provisional, 1

96. In reviewing the First Provisional, I have identified two different embodiments relating to a single seat stroller convertible to a double-seat stroller. The first embodiment shown by Figures 1-3, which I reference as "Embodiment A," discloses converting a single-seat stroller to a double-seat stroller.

[0018] A side view of an embodiment a single stroller 10 is shown in Figure 1. As a note, Figure 1 shows only one side of the single stroller 10, however, most components include a complementary component on the other side of the single stroller but are not shown in Figure 1. The single stroller 10 comprises a frame 12 that supports seat 13. The frame 12 may, optionally, include a folding mechanism 16 that allows the stroller 10 to be folded to a more convenient size for storing or transporting the stroller 10.

■ ■ ■

[0020] The embodiment of the stroller 10 comprises two connector portions 17. The connector portions are preferably on the front of the stroller to allow the attachment and the seat to be connected to the front of the stroller 10. The connector portions 17 allow an attachment such as a conversion kit for converting the single stroller 10 to a double stroller, as shown in Figure 3, to be connected to the stroller. The embodiment of the stroller 10 has a left side and right side connector portions 17. An embodiment of an attachment of stroller 10 will comprise corresponding attachment portions capable of connecting to the stroller frame at the connector

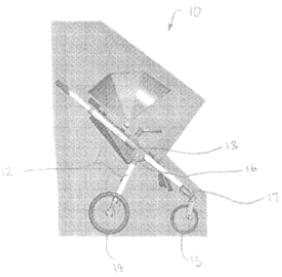


FIGURE 1

■ ■ ■

[0021] An embodiment of an attachment 20 of the invention is shown in Figure 2. The attachment of Figure 2 is in an unlocked and folded configuration. The attachment 20 comprises a pair of attachment portions 21 capable of connecting to the stroller frame 12, two seat attachment elements 22 capable of supporting a seat; and a wheel 23. In this embodiment, the attachment portions are connected to the rear of the attachment 20 allowing the attachment 20 to be connected to the front of a stroller, such as stroller 10 shown in Figure 1. Other embodiments of the stroller attachment may include more than one wheel, one attachment element, one seat attachment element, or combinations of these elements, for example or may not include a wheel. In an embodiment of the stroller with one wheel, the connector portion may be on the forks of the front wheel, for example.

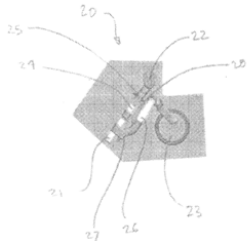


FIGURE 2

[0026] In Figure 3, the attachment 20 of Figure 2 is shown connected to the single stroller 10 of Figure 1 forming a double stroller. The double stroller configuration is shown with two stroller seats in an inline configuration, though the other configurations, such as a stroller seat and a bassinet or a pram may also be supported on the double stroller. Further, the seat attachment element of the attachment may be capable of supporting the front stroller seat in either a forward or backward position.

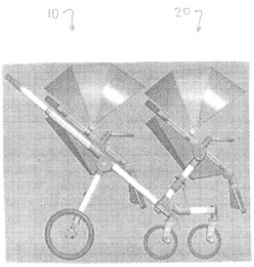
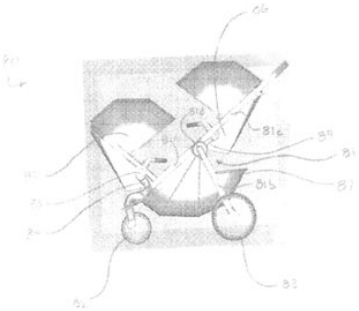


FIGURE 3

EX1002, First Provisional, 36-37, 38, 40, Figs. 1-3

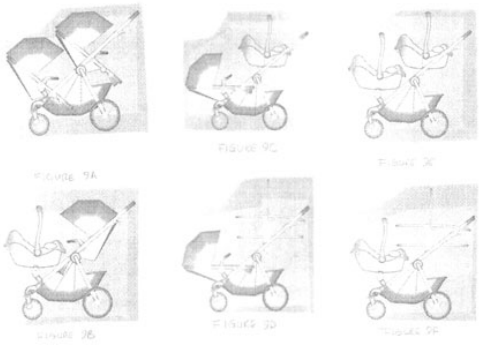
97. Figures 8 and 9A-9H, which I reference as "Embodiment B," discloses another embodiment for converting a single-seat stroller to a double-seat stroller.

[0033] A further embodiment of the stroller 80 is shown in Figure 8. Stroller 80 may be easily converted from a single stroller comprising one seat to a double stroller comprising two seats without addition of another wheel on the attachment. Stroller 80 comprises a frame 81 capable of supporting the stroller seat 86. In this embodiment, the frame 81 comprises a front wheel support portion 81a, a back wheel support portion 81b, and a handle portion 81c. The frame 81 of the embodiment of the stroller 80 further comprises a folding mechanism 81d that connects front wheel support portion 81a, a back wheel support portion 81b, and a handle portion 81c. The folding mechanism 81d allows the stroller to be folded in a more compact size for storing or transportation. Figure 8A shows stroller 80 in a folded configuration.



▪ ▪ ▪

[0036] Embodiment of the stroller 80 comprises a first seat attachment portion 84. The seat attachment portion 84 is connected to the stroller 80 front wheel support frame 81a. The seat attachment portion 84 is adjacent to the front wheel support portion 81a of frame 81. The seat attachment portion is capable of supporting a second seat in front of the stroller seat 86. This provides convenience and versatility to a user of stroller 80. Seat attachment portion may be fixedly attached or removably attached to front wheel support portion 81a. The front seat may be positioned substantially over the front wheels so the stroller remains stable. The seats should be positioned such that the center of gravity of the stroller is between the front and rear wheels. If not an additional wheel may be placed on the attachment as previously described. Seat attachment portion 84 comprises a seat connector 88. Seat connector 88 may be a multipurpose general connector that allows different seats to interchanged on the seat attachment portion 84. Any style seat may be configured to connect to the seat connector, such as but not limited to, a stroller seat, a baby seat, a bassinet, a pram, a baby carrier, or a car seat, for example.



▪ ▪ ▪

[0016] Figures 9A, 9B, 9C, 9D, 9E, and 9F show various configurations of the embodiments of the stroller shown in Figure 8.

EX1002, First Provisional, 36, 42-43, Figs. 8, 9A-9F

98. The subcomponents of the frame are described in more detail in Embodiment B compared to Embodiment A specifying that the frame 81 has a front wheel support portion 81a, a back wheel support portion 81b, and a handle portion 81c. (EX1002, 42, ¶0033.)

B. "The First Non-Provisional"

99. On December 4, 2009 continuation U.S. patent application No. 12/631,375 was filed. I understand this application published as U.S. Publication

No. 2010/0140902. (EX1003, "the First Non-Provisional".)

100. The First Non-Provisional appears to have included the First Provisional's disclosure of "Embodiment A."

[0028] A side view of an embodiment a single stroller **10** is shown in FIG. **1**. As a note, FIG. **1** shows only one side of the single stroller **10**, however, most components include a complementary component on the other side of the single stroller but are not shown in FIG. **1**. The single stroller **10** comprises a frame **12** that supports seat **13**. The frame **12** may, optionally, include at least one, preferably two, folding mechanism **16** that allows the stroller **10** to be folded to a more convenient size for storing or transporting the stroller **10**.

■ ■ ■

[0030] The embodiment of the stroller **10** comprises two attachment frame members **17**. The connector portions are preferably on the front of the stroller to allow the seat attachment and the seat to be connected to the front of the stroller **10**. The attachment frame members **17** allow a seat attachment such as the seat attachment for converting the single stroller **10** to a double stroller, as shown in FIG. **3**, to be connected to the stroller. Only one seat attachment is shown in FIG. **3**, the stroller **10** would use two seat attachments as shown in FIG. **3** or one seat attachment comprising two seat support elements. The embodiment of the stroller **10** has a left side and right side attachment frame members **17**. An embodiment of a seat attachment of stroller **10** will comprise corresponding connector portions capable of connecting to the stroller frame at the attachment frame members **17**. Though the seat attachment for the stroller is described in relation to a single stroller, the attachment may similarly be attached to a double stroller. Embodiments of the seat attachment may therefore be used to convert a double stroller into a triple stroller, if desired.

[0031] An embodiment of a seat attachment **20** of the invention is shown in FIG. **2**. The seat attachment of FIG. **2** is in an unlocked and folded configuration. The seat attachment **20** comprises a pair of connector portions **21** capable of connecting to the attachment frame members **12**, two seat attachment elements **22** capable of supporting a seat; and a wheel **23**. In this embodiment, the connector portions are connected to the rear of the seat attachment **20** allowing the seat attachment **20** to be connected to the front of a stroller, such as stroller **10** shown in FIG. **1**. Other embodiments of the seat attachment may include more than one wheel, one connector portion, one seat support element, or combinations of these elements. In an embodiment of the stroller with one wheel, the attachment frame member may be on the forks of the front wheel, for example.

■ ■ ■

[0036] In FIG. **3**, the seat attachment **20** of FIG. **2** is shown connected to the single stroller **10** of FIG. **1** forming a double stroller. The double stroller configuration is shown with two stroller seats **13** in an inline configuration, though the other configurations, such as a stroller seat and a bassinet or a pram may also be supported on the double stroller. Further, the seat support element of the seat attachment may be capable of supporting the front stroller seat in either a forward or backward position.

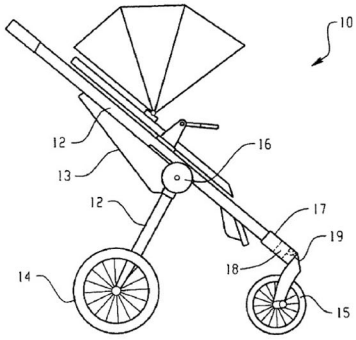


Fig. 1

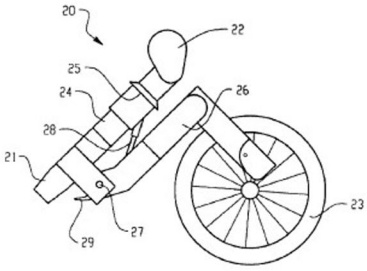


Fig. 2

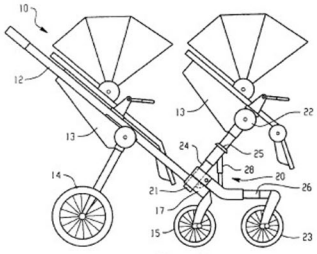


Fig. 3

EX1003, First Non-Provisional, ¶¶0028, 0030-0031, 0036, Figs. 1-3

101. The First Non-Provisional also appears to have included the First Provisional's disclosure of "Embodiment B" related to Figures 8 and 9A-9F.

[0043] A further embodiment of the stroller **80** is shown in FIG. **8**. Stroller **80** may be easily converted from a single stroller comprising one seat to a double stroller comprising two seats without addition of another wheel on the attachment. Stroller **80** comprises a frame **81** capable of supporting the stroller seat **86**. In this embodiment, the frame **81** comprises a front wheel support portion **81***a*, a back wheel support portion **81***b*, and a handle portion **81***c*. The frame **81** of the embodiment of the stroller **80** further comprises a folding mechanism **81***d* that connects front wheel support portion **81***a*, a back wheel support portion **81***b*, and a handle portion **81***c*. The folding mechanism **81***d* allows the stroller to be folded in a more compact size for storing or transportation. FIG. **8**A shows stroller **80** in a folded configuration.

[0046] Embodiment of the stroller **80** comprises a first seat support element **84**. The seat support element **84** is connected to the stroller **80** front wheel support frame **81***a*. The seat support element **84** is adjacent to the front wheel support portion **81***a* of frame **81**. The seat support element is capable of supporting a second stroller seat **85** in front of the stroller seat **86**. This provides convenience and versatility to a user of stroller **80**. Seat support element may be fixedly attached or removably attached to front wheel support portion **81***a*. The front seat **85** may be positioned substantially over the front wheels so the stroller remains stable. Preferably, the seats should be positioned such that the center of gravity of the stroller is between the front and rear wheels. If not an additional wheel may be placed on the attachment as previously described. Seat support element **84** comprises a seat connector **88**. Seat connector **88** may be a multipurpose general connector that allows different seats to interchanged on the seat support element **84**. Any style seat may be configured to connect to the seat connector, such as but not limited to, a stroller seat, a baby seat, a bassinet, a pram, a baby carrier, or a car seat, for example.

[0026] FIGS. **9**A, **9**B, **9**C, **9**D, **9**E, and **9**F show various configurations of the embodiments of the stroller shown in FIG. **8**.

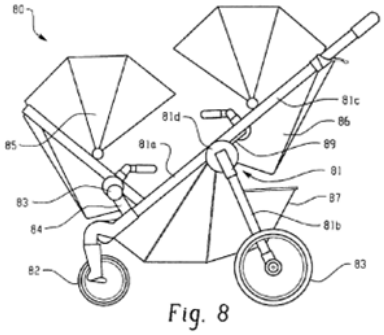
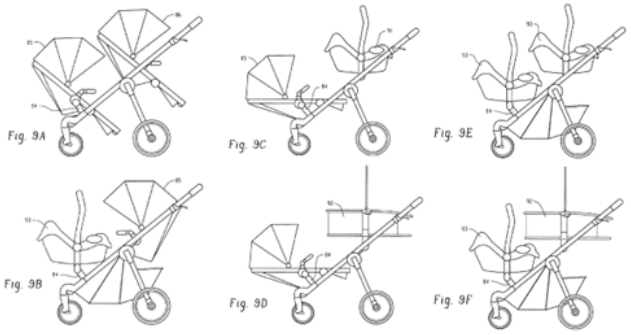


Fig. 8



EX1003, First Non-Provisional, ¶¶0026, 0043, 0046, Figs. 8, 9A-9F

102. The figures and Description section of the First Non-Provisional appear to be very similar to what is disclosed by the First Provisional Application. As such, the First Non-Provisional depicts and describes the "frame 12" of Embodiment A mostly the same as in the First Provisional. (EX1003, First Non-Provisional, ¶0028.)

103. The First Non-Provisional Application also described Embodiment B

fairly consistent with the First Provisional Application explaining the "frame 81" has a "front wheel support portion 81a" (red), a "folding mechanism 81d," a "back wheel support portion 81b (blue)", and a "handle portion 81c" (yellow). (EX1003, First Non-Provisional, ¶0043.)

104. But as I have shown below, both embodiment A and B continue to show the handle portion 81c (red) as being colinear with the front wheel support portion 81a (light blue). Both also continue to show the handle portion 81c (red) extending from the folding mechanism 81d to the top of the frame.

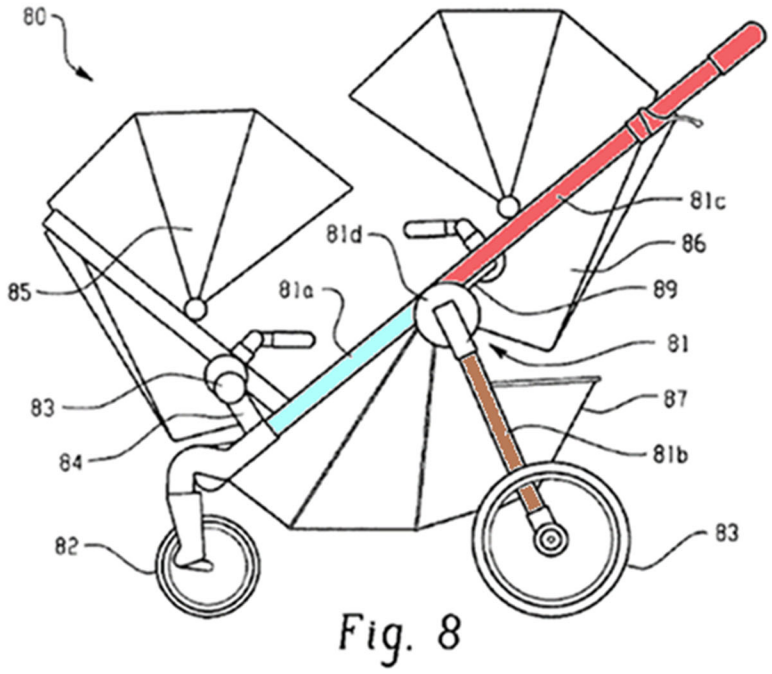


Fig. 8

EX1003, First Non-Provisional, Fig. 8 (Modified)

105. On March 28, 2013, while prosecution of the First Non-Provisional was ongoing, the Examiner indicated a figure was needed to illustrate how

"Embodiment A" (*i.e.*, Figures 1-3) discloses "one attachment portion" being attached to one front wheel and "the other attachment portion" being attached to the other front wheel.

8. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following from Claim 16 must be shown or the feature(s) canceled from the claim(s): "wherein one attachment portion is connected adjacent to one front wheel and the other attachment portion is connected to the frame adjacent to the other front wheel." No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

EX1014, File History of First Non-Provisional, 183-184

106. On June 12, 2013, the Patent Owner responded by attempting to amend the specification to include Figures 10 and Figure 11 (shown below). The Patent Owner also attempted to amend the specification to include the following description for both Figures 10 and 11.

AMENDMENT TO THE SPECIFICATION

Please add the following paragraphs to the specification after paragraph [0026]:

"FIG. 10 shows a perspective view of an embodiment of a stroller comprising two attachment frame members 17 capable of reversibly receiving two separate seat attachments 20 84, wherein the seat attachments each comprise a seat attachment member 22 for converting the stroller into a double stroller, the seat attachment comprising a connector portion capable of reversibly connecting to one of the attachment portions above a front wheel of the stroller and a seat attachment member capable of supporting a second seat in either a forward or backward position;

FIG. 11 shows a close up on the stroller, stroller front wheel, attachment portion 17 of the stroller adjacent to the front wheel comprising slot 18 and the seat attachment 84."

EX1014, File History of First Non-Provisional, 221

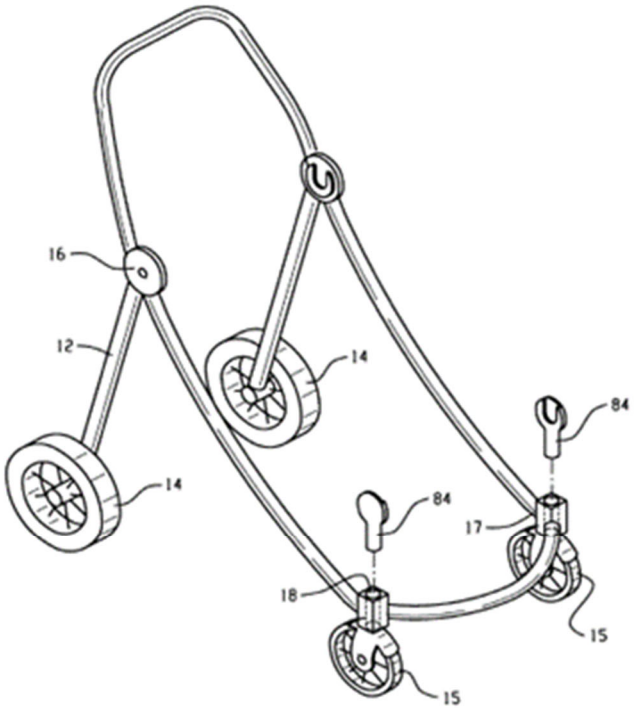


Fig. 10

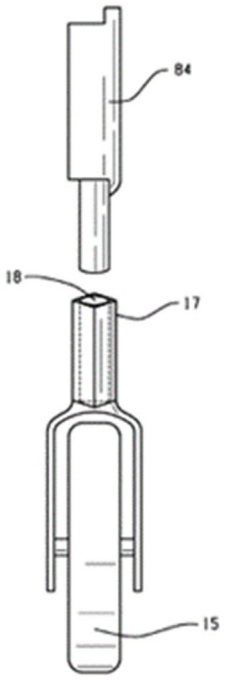


Fig. 11

EX1014, File History of First Non-Provisional, 233-234

107. On August 2, 2013, the Examiner objected, stating Figures 10-11 do not appear to be directed to the "elected embodiment" disclosed by Figures 1-3.

The Examiner instead indicated Figures 10-11 appear to be directed to "a different embodiment and do not contain the same elements as claimed[.]"

7. The new drawings submitted 6/12/2013 labeled Figures 10 and 11 (along with the previously submitted Figures 1-3) are objected to as failing to comply with 37 CFR 1.84(p)(4). Specifically, it is unclear whether the new Figures are the requested "frontal view" showing "how the seat attachment and stroller mate" pertaining to the elected embodiment in Figures 1-3. As best understood, the new figures appear to be directed to a different embodiment and do not contain the same elements as claimed nor do they illustrate "how the seat attachment and stroller mate." Furthermore, they do not contain the seat attachment or its extra wheel as claimed (See, e.g., Claims 2 and 16). Claim 16, as currently claimed, provides for a stroller with at least three wheels in the front which the drawings do not currently illustrate. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

EX1014, File History of First Non-Provisional, 276-277

108. It does not appear this objection was addressed and the Patent Owner ultimately elected to abandon the First Non-Provisional. (EX1014, File History of First Non-Provisional, 519-521.)

◉ Applicant hereby expressly abandons the instant application (any attorney/agent signing for this reason must have power of attorney pursuant to 37 CFR 1.32(b)).

EX1014, File History of First Non-Provisional, 521

C. "The '869 Patent"

109. On April 25, 2014, just before the First Non-Provisional was abandoned, Patent Owner filed U.S. patent application No. 14/261,558 which issued as U.S. Pat. No. 8,955,869 (EX1004, "the '869 Patent".) I understand the '869 Patent claims priority to the First Provisional.

110. As filed, the '869 Patent appears to include the disclosure regarding "Embodiment A" (see EX1004, the '869 Patent, 4:40-48, 5:11-44, 7:5-13) and "Embodiment B" (see EX1004, the '869 Patent, 8:49-62, 9:36-56, 3:66-67.)

111. But when filed, the Patent Owner added Figures 10-11.

112. When added to the '869 Patent, Figures 10-11 included only the following description.

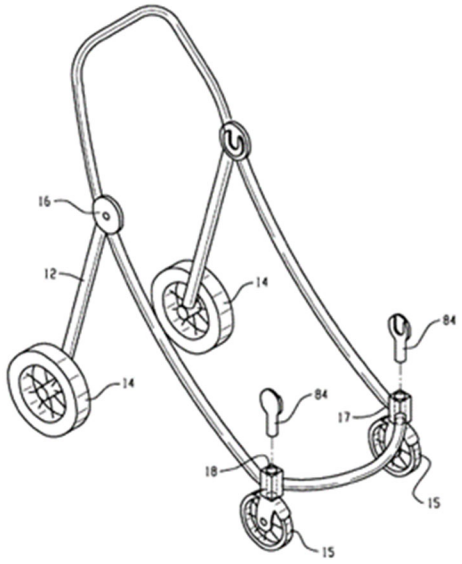


Fig. 10

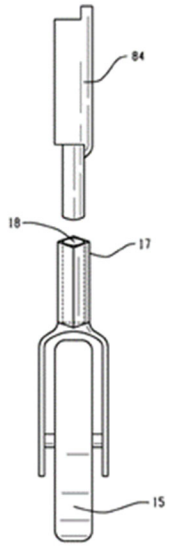


Fig. 11

FIG. **10** shows a stroller with left and right attachment frame members for attaching a second seat; and

FIG. **11** shows an attachment frame member with a cylindrical post to be received in a slot in a stroller frame.

EX1004, the '869 Patent, 4:1-4, Figs. 10-11

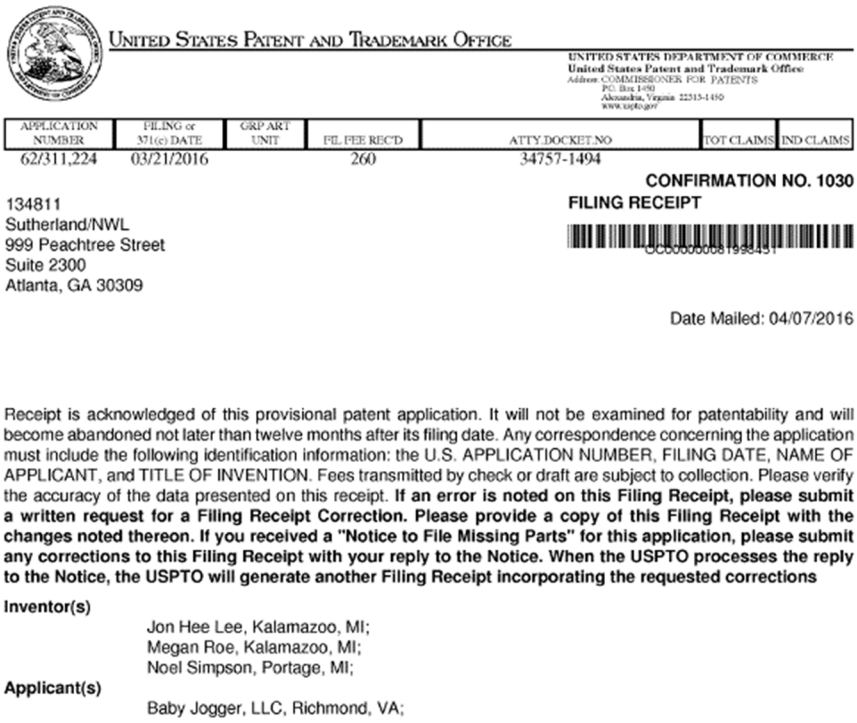
113. As I explained above, I understand the Examiner objected to these two drawings when introduced as not being representative of the embodiment shown by Figures 1-3, *i.e.,* "Embodiment A." (EX1014, First Non-Provisional File History, 276-277.) I agree with the Examiner's original objection as the First Provisional never disclosed a curved stroller frame. The First Provisional also never disclosed an "attachment frame member with a cylindrical post" as is shown by Figures 10-11. Instead, these drawings would not be considered by a POSITA as being contemplated and disclosed by either the First Provisional or the originally filed First Non-Provisional. Instead, these figures would be considered

by a POSITA as being an alternative embodiment and disclosure.

D. "The Second Provisional"

114. On March 21, 2016 the Patent Owner filed U.S. Provisional Patent Application No. 62/311,224 (EX1006, "Second Provisional").[13]

115. The Second Provisional does not list Mr. Zehfuss as a named inventor. Instead, as shown below the Second Provisional lists John Lee, Megan Roe, and Noel Simpson as named inventors.



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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
62/311,224	03/21/2016		260	34757-1494		

CONFIRMATION NO. 1030

134811
Sutherland/NWL
999 Peachtree Street
Suite 2300
Atlanta, GA 30309

FILING RECEIPT

Date Mailed: 04/07/2016

Receipt is acknowledged of this provisional patent application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)
Jon Hee Lee, Kalamazoo, MI;
Megan Roe, Kalamazoo, MI;
Noel Simpson, Portage, MI;

Applicant(s)
Baby Jogger, LLC, Richmond, VA;

EX1006, Second Provisional, 1

[13] I have been informed by my attorneys the Second Provisional is not permitted to claim priority to the originally filed First Provisional application.

116. The Second Provisional discloses multiple new embodiments not previously disclosed.

117. In general, the Second Provisional discloses multiple embodiments disclosing the novel design and operation of "seat attachment adapters" and "seat attachment housings" to allow a single-seat stroller to be adjusted to a double-seat stroller.

118. For instance, Embodiment C[14] discloses and provides exemplary drawings (Figures 1A-H, 2, and 4A-4C) pertaining to features of the "seat attachment adapters" and "seat attachment housings." In stepping through the various drawings, the Second Provisional also details how the "seat attachment adapters" can operate in conjunction with the either the "stroller frame" or the "seat attachment housings."

[14] To avoid confusion, I maintain the labels Embodiments A-B pertaining to the First Non-Provisional and will use Embodiments C-D for what is disclosed by the Second Provisional. I also note that Embodiment C could be considered multiple different embodiments based on what is disclosed.

Figures 1A-H present multiple views of a stroller apparatus capable of being converted from a single seat stroller to a double seat stroller through the use of removable seat attachment adapters, according to one example embodiment of the disclosure. Referring now to Figures 1A-H, the example stroller apparatus 10 can include a stroller frame 11 capable of supporting one or more stroller seats 15, 16. In one example embodiment, the stroller frame 11 can made of one or more pieces fixedly coupled and/or removably coupled to one another. The stroller frame 11 can include portions that are hollow tubing and other portions that are solid core tubing and can be made from metal, plastic, or other materials known in the art.

■ ■ ■

decoupled from the frame 11 and stored when a second stroller seat is not being used with the stroller 10. In one example embodiment, each removable seat attachment adapters can be coupled to the frame by coupling the adapter 14 into a seat attachment housing disposed along the frame 11. In one example, the seat attachment housing (such as that described in Figures 2-5C below) can be integrally formed with all or a portion of the stroller frame (e.g., integrally formed with front wheel support frame 11a). Alternatively, the seat attachment housing can be a separate apparatus that is coupled to the frame 11 or incorporated into the frame 11 by coupling multiple pieces of the frame 11 together. The frame 11 and each seat attachment housing can be made from the same or different materials, including, metals and plastics.

Though it cannot be seen in the side view of Figure 1A, a typical embodiment of the stroller 10 will include at least two removable seat attachment adapters 14 (at least one along each left and right side of the stroller 10 along the stroller frame 11). For example, at least one removable seat attachment adapter can support each lateral side of the second stroller seat 15. In certain example embodiments, each of the removable seat attachment adapters 14 may be made up of one piece or multiple parts. The removable seat attachment adapters 14 may be of any design capable of securely supporting a seat on the stroller. In one example, the removable seat attachment adapter 14 is configured to have a first end that removably coupled to the frame 11 and/or seat attachment housing and a distal second end that is configured to be removably coupled to a second stroller seat 15. The removable seat attachment adapter 14 is designed to be capable of supporting the second stroller seat 15 in front of the first stroller seat 16. The stroller 10 may also include a storage basket 17.

■ ■ ■

In certain example embodiments, the removable seat attachment adapter 14 is capable of supporting a second stroller seat 15 such that a child in the second stroller seat 15 is substantially above the frame 11 of the stroller 10 that is substantially adjacent to the connection point of the second stroller seat 15. This positioning of the second stroller seat 15 with respect to the frame 11 provides easier access to the second stroller seat 15, does not block access to the storage basket 17, allows more versatile configurations of the seats 15, 16, allows more variety of seats 15, 16 to be attached to the frame 11, and allows the parent or guardian to more easily monitor and see the child in each stroller seat 15, 16.

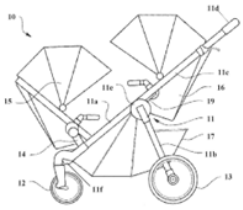


FIGURE 1A

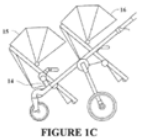


FIGURE 1C



FIGURE 1E



FIGURE 1D



FIGURE 1F



FIGURE 1G



FIGURE 1H

EX1006, Second Provisional, 8, 10-11, Figs. 1A, 1C-1H

Figure 2 is a partial perspective view of the stroller 10 showing a seat attachment housing 205 according to one example embodiment of the disclosure. Referring now to Figures 1A and 2, the example stroller 10 can include a first seat attachment housing 205 and the second seat attachment housing 210. The first seat attachment housing 205 can include a first end 205a having a cavity for slidably receiving and fixedly or slidably coupling the first end 205a to a first end of the left front wheel support frame 11a. For example, the left front wheel support frame 11a can have a substantially circular or oval cross-section and the cavity of the first end 205a can have a corresponding circular or

■ ■ ■

decoupled from the frame 11 and stored when a second stroller seat is not being used with the stroller 10. In one example embodiment, each removable seat attachment adapters can be coupled to the frame by coupling the adapter 14 into a seat attachment housing disposed along the frame 11. In one example, the seat attachment housing (such as that described in Figures 2-5C below) can be integrally formed with all or a portion of the stroller frame (e.g., integrally formed with front wheel support frame 11a). Alternatively, the seat attachment housing can be a separate apparatus that is coupled to the frame 11 or incorporated into the frame 11 by coupling multiple pieces of the frame 11 together. The frame 11 and each seat attachment housing can be made from the same or different materials, including, metals and plastics

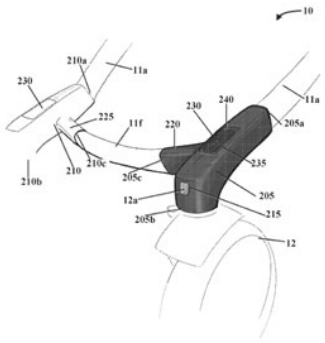


FIGURE 2

EX1006, Second Provisional, 10, 12, Fig. 2

Figures 4A-C are partial perspective views of the removable seat attachment adapter 14 coupled to the seat attachment housing 205 according to one example embodiment of the disclosure. Now referring to Figures 1A, 2, 3, and 4A-C, once the door 235 has been moved into the open configuration exposing the opening 230 and the adapter receiving cavity 305, a first end 14a of the removable seat attachment adapter 14 can be inserted into the adapter receiving cavity 305. In certain example embodiments, the adapter receiving cavity 305 can include one or more stop flanges 415, 420 that extend out from an inner surface of the cavity 305 and into the cavity area to abut against a bottom side of the first end 14a of the removable seat attachment adapter 14 when the adapter 14 has penetrated a sufficient amount into the adapter receiving cavity 305. Once the adapter 14 is inserted into the cavity 305 and removably coupled to the seat attachment housing 205, a stroller seat can be removable coupled to a seat connector disposes on or adjacent to the second end 14b of the removable seat attachment adapter 14. The seat connector on the second end 14b can be a multipurpose general connector that allows different seats to be interchangeably connected to the removable seat attachment adapter 14. Any style seat may be configured to connect to the seat connector including, but not limited to, a stroller seat, a baby seat, a bassinet, a pram, a baby carrier, or a car seat, for example.

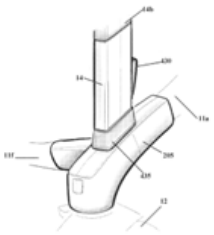


FIGURE 4A

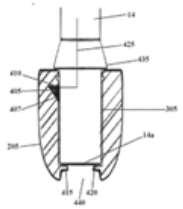


FIGURE 4B

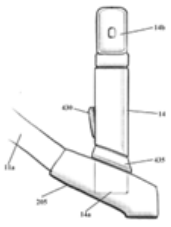


FIGURE 4C

EX1006, Second Provisional, 15-16, Figs. 4A-4C

119. While not discussed in the specification, Embodiment C was consistent with embodiments A and B with regards to the sides of the frame being in a collinear alignment.

120. Embodiment D of the Second Provisional, details and illustrates (Figures 5A-C) an "alternative embodiment" of the "seat attachment housings" and how it may operate with the "seat attachment adapters."

Figures 5A-C are partial perspective views of an alternative embodiment of the seat attachment housing 505, 510 according to another example embodiment of the disclosure. Referring now to Figures 1A, 2 and 5A-C, the seat attachment housings 505, 510 are substantially the same as the seat attachment housings 205, 210 described in Figures 2-4C except for as described below. Therefore, the description of the seat attachment housings 205, 210 in Figures 2-4C above is incorporated herein for the alternative seat attachment housings 505, 510, except with regard to the distinctions described below.

Each seat attachment housing 505, 510 can include a rotating door 515 rotatably coupled to the seat attachment housing 505, 510. For example, the rotating door 515 can have a fixed end that is rotatably coupled to the top side of the seat attachment housing 505, 510 or an interior wall of the opening 230 or adapter receiving cavity 305 by way of or more hinges 520. Alternatively, other devices may be used to allow the door 515 to rotate from a closed configuration 515a to an open configuration 515b, as shown in Figure 5C. In certain example embodiments, the door 515 and/or the rotating mechanism or hinge 520 that the door 515 is coupled to can be spring-biased into the closed configuration 515a through the use of a spring or other biasing means. Spring-biasing the door 515 into a closed configuration 515a can help to prevent fluids and other material contaminants from entering the adapter receiving cavity 305 when the removable seat attachment adapter 14 is not coupled into the adapter receiving cavity 305.

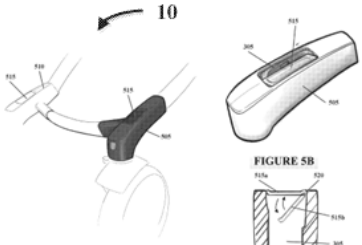


FIGURE 5A

FIGURE 5B

FIGURE 5C

EX1006, Second Provisional, 17-18, Figs. 5A-5C

121. Although I understand it to not be common practice, the Second Provisional also included a set of "claims" near the end of the specification. As I show below, claim 1 recites how the disclosed "seat attachment adapter(s)" could be "configured to be removably coupled" to the "seat attachment housing(s)."

What is claimed is:

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, Second Provisional, 20

122. Again, the Second Provisional discloses as part of Embodiment C that the "removable seat attachment adapter 14 is configured to have a first end that removably coupled to the frame 11 and/or seat attachment housing and a distal second end that is configured to be removably coupled to a second stroller seat 15." (EX1006, Second Provisional, 10.) The above claim therefore recites an aspect of Embodiment C where the first/second adapters are "removably coupled" to a first/second housings.

123. The Second Provisional also introduced new, previously undisclosed definitions for "substantially," "substantially equal," "substantially constant," and "substantially parallel."

In addition, certain relationships between dimensions of the adjustable stroller and between features of the adjustable stroller are described herein using the term "substantially." As used herein, the terms "substantially" and "substantially equal" indicates that the equal relationship is not a strict relationship and does not exclude functionally similar variations therefrom. Unless context or the description indicates otherwise, the use of the term "substantially" or "substantially equal" in connection with two or more described dimensions indicates that the equal relationship between the dimensions includes variations that, using mathematical and industrial principles accepted in the art (*e.g.*, rounding, measurement or other systematic errors, manufacturing tolerances, etc.), would not vary the least significant digit of the dimensions. As used herein, the term "substantially constant" indicates that the constant relationship is not a strict relationship and does not exclude functionally similar variations therefrom. 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.

EX1006, Second Provisional, 7-8

124. I believe the addition of these definitions becomes relevant to certain claim limitations.

E. "The '305 CIP"

125. On August 1, 2016, the Patent Owner filed continuation-in-part U.S. patent application No. 15/225,326, which issued as U.S. Pat. No. 9,944,305. (EX1007, "the '305 CIP"). The '305 CIP claimed priority back to the First Provisional and claimed the benefit of the Second Provisional.

126. In reviewing the '305 CIP specification, I noticed the '305 CIP

specification: (1) adds and incorporates Embodiments C and D from the Second Provisional; (2) incorporates a modified version of Embodiment A from the First Provisional; and (3) adds an alternative "Embodiment E" using Figures 9 and 10 (which had been labeled Figures 10-11 when added in the '869 Patent).

127. A red-line comparison between the First Non-Provisional specification and the '305 CIP specification illustrates the comprehensive and significant modifications that occurred when the '305 Patent application was filed. (EX1046, Comparison of First Non-Provisional (EX1003) and '305 CIP specification (EX1007).)[15] This comparison was done using the filed specification for the First Non-Provisional in comparison to the filed specification for the '305 Patent (*i.e.*, comparison between EX1014, First Non-provisional File History, 3-16 and EX1017, '305 Patent File History, 1-22).

128. First, the '305 CIP now includes Embodiments C and D from the Second Provisional regarding the design and operational aspects of the "seat attachment adapters" and "seat attachment housings." (*See e.g.*, EX1046, Comparison of First Non-Provisional specification and '305 CIP specification

[15] The comparison "strikes out" material that has been removed from the First Non-Provisional specification and underlines material that has been added into the '305 CIP specification.

("Comparison"), 15-27; EX1007, '305 CIP, 8:63-11:58, 12:37-16:14, 16:27-17:6.)

129. Second, the '305 CIP includes but modifies the disclosure of Embodiment A from the original disclosure. (See *e.g.*, EX1046, Comparison, 9-13).

130. Third, the '305 CIP includes a new embodiment – which I reference as "Embodiment E" – when describing Figures 9 and 10.[16] (EX1014, First Non-Provisional File History, 221, 233-234.)

[16] These two figures were originally included and introduced as Figures 10 and 11 during prosecution of the '869 Patent.

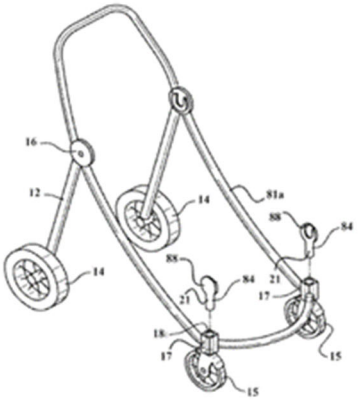


FIGURE 9

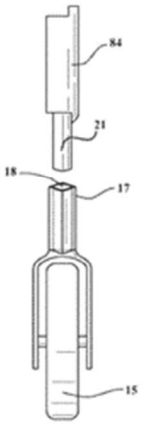


FIGURE 10

In one example embodiment, as shown in FIGS. **9-10**, the stroller **80** can include one or more, and preferably two, seat support elements **84**. The seat support element **84** is connected to and can be removably coupled to the stroller **80** front wheel support frame **81***a*. In certain example embodiments, the seat support element **84** is adjacent to the front wheel support portion **81***a* of frame **81**. Alternatively, the seat support element **84** is simply forward of and positioned at a vertical level lower than the attachment point for the first stroller seat **86** (FIG. **8**A) on the stroller **80**. The seat support element **84** is capable of supporting a second stroller seat **85** in front of the stroller seat **86** (see FIG. **8**A). This provides convenience and versatility to a user of the stroller **80**. Seat support element **84** may be fixedly attached or removably attached to front wheel support portion **81***a*. In certain example embodiments, the front seat **85** may be positioned substantially over the front wheels **15** so the stroller **80** remains stable. Preferably, the seats **85**, **86** should be positioned such that the center of gravity of the stroller **80** is between the front **15** and rear **14** wheels. If not an additional wheel may be placed on the attachment as previously described. The seat support element **84** can further include a seat connector **88**. In one example, the seat connector **88** can be disposed along a top end of the seat support element **84**. The example seat connector **88** may be a multipurpose general connector that allows different seats to be interchanged on the seat support element **84**. Any style seat may be configured to connect to the seat connector **88**, such as but not limited to, a stroller seat, a baby seat, a bassinet, a pram, a baby carrier, or a car seat, for example. As shown in FIG. **9**, the seat support element **84** can also include a connector portion **21**. The connector portion **21** is capable of connecting the seat attachment to the frame **81** via the attachment portion **17** and the slot **18**.

In certain example embodiments, the connector portion **21** of the seat attachment **20** has a cylindrical or substantially cylindrical shape. The connector portion **21** may be inserted into a cylindrical or substantially cylindrical slot **18** of the attachment portion **17** of the stroller **80** of FIG. **9-10** to secure the seat attachment and convert the single stroller into a double stroller, as shown in FIG. **8**A. The connector portion **21** may be of a solid or tubular construction and may be any cross-sectional shape including, but not limited to, circular, polygonal, square, rectangular, and triangular, for example.

EX1007, '305 CIP, 11:59-12:36, Figs. 9, 10

131. With regards to Figures 9 and 10, I noted the Patent Owner selectively chose to describe "seat support element 84" as connecting to an "attachment portion 17" ***instead*** of describing them as "seat attachment adapters" coupling to "seat attachment housings."

be configured to connect to the seat connector **88**, such as but not limited to, a stroller seat, a baby seat, a bassinet, a pram, a baby carrier, or a car seat, for example. As shown in FIG. **9**, the seat support element **84** can also include a connector portion **21**. The connector portion **21** is capable of connecting the seat attachment to the frame **81** via the attachment portion **17** and the slot **18**

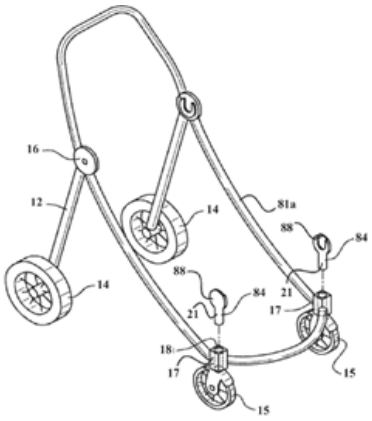


FIGURE 9

EX1007, '305 CIP, 12:21-25, Fig. 9

132. In my opinion, the distinction between describing the various items using different terms is meant to inform a POSITA the embodiments are different and unique. Given the description pertaining to Figures 9 and 10 is new, the Patent Owner could have used the term "seat attachment adapters" instead of "seat support elements." Or the Patent Owner could have included a statement indicating the "seat support elements" are like or intended to be the same as "seat attachment adapters."

133. But the Patent Owner did not convey to a POSITA what is being described and shown by Figures 9 and 10 are "seat attachment adapters." This is noteworthy given there is extensive discussion of the "seat attachment adapters 84"/"seat attachment housings 1105" (highlighted in yellow below) both right before and after the disclosure regarding Figures 9 and 10 (highlighted in orange below).

basket **87**, allows more versatile configurations of the seats **85**, **86**, allows more variety of seats **85**, **86** to be attached to the frame **81**, and allows the parent or guardian to more easily monitor and see the child in each stroller seat **85**, **86**.

The example stroller of FIG. **8**A can also include the first stroller seat **86**. In certain example embodiments, the first stroller seat **86** can be located generally closer to the handle portion **81***d* than to the front wheels **82**. The first stroller seat **86** may be fixedly coupled or removably coupled to the frame **81**. In certain example embodiments wherein the first stroller seat **86** is removably coupled to frame **81**, the first stroller seat **86** may be adjustable from a forward-facing configuration to a rearward-facing configuration and vice-versa, as shown, for example, in FIGS. **8**B-**8**C. In addition, the second stroller seat **85**, when coupled to the corresponding removable seat attachment adapters **84**, can be adjustable from a forward-facing configuration to a rearward-facing configuration and vice-versa.

FIGS. **8**C-**8**H present additional examples of combinations for a variety of types of stroller seats that can be removably coupled to the stroller **80**. For example, in FIG. **8**D, the second stroller seat **86** can be replaced by an infant carrier **93** that can be removably coupled to each of the at least two removable seat attachment adapters **84** and the first stroller seat **86** can be coupled to the stroller in a forward-facing position. In another example, as shown in FIG. **8**E, the first stroller seat **86** can be replaced by a child carrier **91** that may be coupled to the frame **81** and positioned in the first seat position and the second stroller seat **85** can be coupled to the stroller **80** by way of the at least two removable seat attachment adapters **84** in a rearward-facing position. In yet another example, as shown in FIG. **8**F, the child carrier **91**, of FIG. **8**E, can be replaced with a pram **92** that is removably coupled to the stroller **80** in the first seat position. In still another example configuration, as shown in FIG. **8**G, two child carriers **91** may be removably coupled to the stroller frame **81**. For example, the front child carrier can be coupled to the stroller by way of each of the at least two removable seat attachment adapters **84**. In another example configuration, one of the child carriers **91** may be replaced with a pram or bassinet **92**, as shown in FIG. **8**H.

In certain example embodiments, the stroller **80** may also include a second set of removable seat attachment adapters **89** removably coupled to the frame **81** (or another pair of seat attachment housings substantially similar to those **1105**, **1110** described below) along the upper tube support frame **81***c*. The second set of removable seat attachment adapters **89** may be substantially the same as or exactly the same as the removable seat attachment adapters **84** described herein and may be coupled to the frame **81** (or corresponding seat attachment housings) in substantially the same manner as the removable seat attachment adapters **84**, as discussed in more detail below. The second set of removable seat attachment adapters **89** can include at least two adapters (at least one along each left and right side of the stroller **80**) for removably coupling and decoupling the first stroller seat **86** or any other form of seat described herein to the stroller frame **81** or corresponding seat attachment housing.

In one example embodiment, as shown in FIGS. **9**-**10**, the stroller **80** can include one or more, and preferably two, seat support elements **84**. The seat support element **84** is connected to and can be removably coupled to the stroller **80** front wheel support frame **81***a*. In certain example embodiments, the seat support element **84** is adjacent to the front wheel support portion **81***a* of frame **81**. Alternatively, the seat support element **84** is simply forward of and positioned at a vertical level lower than the attachment point for the first stroller seat **86** (FIG. **8**A) on the stroller **80**. The seat support element **84** is capable of supporting a second stroller seat **85** in front of the stroller seat **86** (see FIG. **8**A). This provides convenience and versatility to a user of the stroller **80**. Seat support element **84** may be fixedly attached or removably attached to front wheel support portion **81***a*. In certain example embodiments, the front seat **85** may be positioned substantially over the front wheels **15** so the stroller **80** remains stable. Preferably, the seats **85**, **86** should be positioned such that the center of gravity of the stroller **80** is between the front **15** and rear **14** wheels. If not an additional wheel may be placed on the attachment as previously described. The seat support element **84** can further include a seat connector **88**. In one example, the seat connector **88** can be disposed along a top end of the seat support element **84**. The example seat connector **88** may be a multipurpose general connector that allows different seats to be interchanged on the seat support element **84**. Any style seat may be configured to connect to the seat connector **88**, such as but not limited to, a stroller seat, a baby seat, a bassinet, a pram, a baby carrier, or a car seat, for example. As shown in FIG. **9**, the seat support element **84** can also include a connector portion **21**. The connector portion **21** is capable of connecting the seat attachment to the frame **81** via the attachment portion **17** and the slot **18**.

In certain example embodiments, the connector portion **21** of the seat attachment **20** has a cylindrical or substantially cylindrical shape. The connector portion **21** may be inserted into a cylindrical or substantially cylindrical slot **18** of the attachment portion **17** of the stroller **80** of FIG. **9**-**10** to secure the seat attachment and convert the single stroller into a double stroller, as shown in FIG. **8**A. The connector portion **21** may be of a solid or tubular construction and may be any cross-sectional shape including, but not limited to, circular, polygonal, square, rectangular, and triangular, for example.

FIG. **11** is a partial perspective view of the stroller **80** showing a seat attachment housing **1105** according to one example embodiment of the disclosure. Referring now to FIGS. **8**A and **11**, the example stroller **80** can include a first seat attachment housing **1105** and the second seat attachment housing **1110**. The first seat attachment housing **1105** can include a first end **1105***a* having a cavity for slidably receiving and fixedly or slidably coupling the first end **1105***a* to a first end of the left front wheel support frame **81***a*. For example, the left front wheel support frame **81***a* can have a substantially circular or oval cross-section and the cavity of the first end **1105***a* can have a corresponding circular or oval cross-section to slidably receive a portion of the left front wheel support frame **81***a* into the cavity. In one example, the left front wheel support frame **81***a* can be held in the cavity of the first end **1105***a* by a press fit hold. Alternatively, a spring-loaded button on the left front wheel support frame **81***a* can be positioned into a corresponding opening along one of the sides of the first seat attachment housing **1105**.

The first seat attachment housing **1105** can also include a second end **1105***b* that includes a second cavity for coupling one of the front wheels **82** to the first seat attachment housing **1105**. The wheel **82** may be removably coupled to the second end **1105***b* of the first seat attachment housing **1105** by a press fit hold. Alternatively, a spring-loaded button **82***a* on the front wheel apparatus **82** can be positioned into the cavity of the second end **1105***b* and positioned into a corresponding opening **1115** along one of the sides of the first seat attachment housing **1105**. In one example embodiment, the first seat attachment housing **1105** can include an attachment arm **1120** extending off of one side of the first

See *e.g.*, EX1007, '305 CIP, 11:1-12:67

134. The additional disclosure of this and other material within the '305 CIP is relevant to certain patents and claims I have reviewed and been asked to provide opinions about.

135. The '305 CIP also included the definitions regarding "substantially" and "substantially parallel" which were first introduced in the Second Provisional.

(EX1007, 3:23-55.)

F. The ’568 Patent

136. The ’568 Patent is a related case that I have been asked to opine on in another IPR matter. While the ’682 Patent does not directly descend from the ’568 Patent, the claims and scope are similar. As such, I discuss the prosecution of the ’568 Patent as I have addressed in a co-pending IPR matter here as it becomes relevant as to why I believe a POSITA would not find the claims of the ’682 Patent have priority to the December 4, 2008 First Provisional.

137. As shown below, the ’568 Patent was filed with 20 claims, wherein claims 1, 10, and 17 are independent. Original claims 1 and 17 are shown below.

Claim 1	Claim 17
1. A stroller, comprising: a stroller frame comprising: a first upper tube support frame; a second upper tube support frame; a first front wheel support frame adjustable with respect to the first upper tube support frame; a second front wheel support frame adjustable with respect to the second upper tube support frame; a first back wheel support frame	17. A stroller, comprising: a stroller frame comprising: a first upper tube support frame; a second upper tube support frame; a first back wheel support frame; a second back wheel support frame; a first front wheel support frame; a second front wheel support frame;

Claim 1	Claim 17
rotatable with respect to the first upper tube support frame; and a second back wheel support frame rotatable with respect to the second upper tube support frame; a plurality of wheels comprising at least one front wheel and a plurality of back wheels; 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; a first seat attachment adapter coupled the first front wheel support frame at a second vertical position of the stroller frame that is below the first vertical position; 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; 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.	a plurality of wheels comprising at least one front wheel and a plurality of back wheels; a first seat coupled to the stroller frame at a first vertical position of the stroller frame; a first seat attachment housing disposed adjacent the first front wheel support frame; a second seat attachment housing disposed adjacent the second front wheel support frame; 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; 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; wherein the first seat is coupled along the first upper tube support frame and the second upper tube support frame and wherein a second seat is removably coupled to the first seat attachment adapter and the second seat attachment adapter.

EX1019, '568 File History, 26, 29-30

138. I understand the Examiner rejected claims 1-5, 7-13, 15, 16, and 19 as obvious under 35 U.S.C. § 103 over U.S. Patent No. 7,475,900 (Cheng) in further view of U.S. Patent No. D593,459 (Liao). (EX1019, '568 File History, 557-559.) The Examiner further rejected claims 17 and 20 as anticipated under 35 U.S.C. § 102 over U.S. Patent No. 7,475,900 (Cheng). (EX1019, '568 File History, 555-556.)

139. I understand Applicant amended the claims to overcome the Examiner's rejections. As shown below, the Applicant amended claims 1 and 17 to recite the "attachment adapters" are "removable" from either the "front wheel support frame" or the "seat attachment housings."

1. (Currently Amended) A stroller, comprising:
a stroller frame comprising:
a first upper tube support frame;
a second upper tube support frame;
a first front wheel support frame ~~adjustable~~ adjusted with respect to the first upper tube support frame;
a second front wheel support frame ~~adjustable~~ adjusted with respect to the second upper tube support frame;
a first back wheel support frame ~~rotatable~~ rotated with respect to the first upper tube support frame; and
a second back wheel support frame ~~rotatable~~ rotated with respect to the second upper tube support frame;
a plurality of wheels comprising at least one front wheel and a plurality of back wheels;
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;
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, wherein the first seat attachment adapter is removable from the first front wheel support frame;
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, wherein the second seat attachment adapter is removable from the second front wheel support frame;
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.

17. (Currently Amended) A stroller, comprising:
a stroller frame comprising:
a first upper tube support frame;
a second upper tube support frame;
a first back wheel support frame;
a second back wheel support frame;
a first front wheel support frame;
a second front wheel support frame;
a plurality of wheels comprising at least one front wheel and a plurality of back wheels;
a first seat coupled to the stroller frame at a first vertical position of the stroller frame;
a first seat attachment housing disposed adjacent the first front wheel support frame:
a second seat attachment housing disposed adjacent the second front wheel support frame;
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, wherein the first seat attachment adapter is removable from the first seat attachment housing;
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, wherein the second seat attachment adapter is removable from the second seat attachment housing;
wherein the first seat is coupled along the first upper tube support frame and the second upper tube support frame and wherein a second seat is removably coupled to the first seat attachment adapter and the second seat attachment adapter.

EX1019, '568 File History, 687, 691

140. I understand the Patent Owner asserted for both claims 1 and 17 "[s]upport for the amendments can be found in the Applicant's originally filed application at p.13, line 18 to p.14, line 8[.]" (EX1019, 694-695.) I have included the portion of the application cited by Patent Owner below on the left. On the right, I have included the same language as is found in the 2016 Second Provisional. I could not find similar language in any application prior to the 2016 Second Provisional. It would therefore be clearly understood by a POSITA that the support from the specification relied on by the Patent Owner is drawn from subject matter found only in the *2016 Provisional*. A POSITA would not have found the Patent Owner to have been in possession of this claimed material prior to the 2016 Second Provisional.

'568 Patent Application EX1019, p.15, line 18 to p.16, line 8	**Second Provisional EX1006, p.9, line 30 to p.10, line 23**
The stroller 80 can also include a removable seat attachment adapter 84 that is removably coupled to the frame 81 such that the seat attachment adapter 84 can be decoupled from the frame 81 and stored when a second stroller seat is not being used with the stroller 80. In one example embodiment, each removable seat attachment adapters can be coupled to the frame by coupling the adapter 84 into a seat attachment housing disposed along the frame 81. In one example, the seat attachment housing (such as that described in Figures 1 1-	The stroller 10 can also include a removable seat attachment adapter 14 that is removably coupled to the frame 11 such that the seat attachment adapter 14 can be decoupled from the frame 11 and stored when a second stroller seat is not being used with the stroller 10. In one example embodiment, each removable seat attachment adapters can be coupled to the frame by coupling the adapter 14 into a seat attachment housing disposed along the frame 11. In one example, the seat attachment housing (such as that described in Figures 2-5C

'568 Patent Application EX1019, p.15, line 18 to p.16, line 8	**Second Provisional EX1006, p.9, line 30 to p.10, line 23**
14C below) can be integrally formed with all or a portion of the stroller frame *(e.g.,* integrally formed with front wheel support frame 81a). Alternatively, the seat attachment housing can be a separate apparatus that is coupled to the frame 81 or incorporated into the frame 81 by coupling multiple pieces of the frame 81 together. The frame 81 and each seat attachment housing can be made from the same or different materials, including, metals and plastics. Though it cannot be seen in the side view of Figure 8A, a typical embodiment of the stroller 80 will include at least two removable seat attachment adapters 84 (at least one along each left and right side of the stroller 80 along the stroller frame 81). For example, at least one removable seat attachment adapter can support each lateral side of the second stroller seat 85. In certain example embodiments, each of the removable seat attachment adapters 84 may be made up of one piece or multiple parts. The removable seat attachment adapters 84 may be of any design capable of securely supporting a seat on the stroller. In one example, the removable seat attachment adapter 84 is configured to have a first end that is removably coupled to the frame 81 and/or seat attachment housing and a distal second end that is configured to	below) can be integrally formed with all or a portion of the stroller frame (e.g., integrally formed with front wheel support frame Ila). Alternatively, the seat attachment housing can be a separate apparatus that is coupled to the frame 11 or incorporated into the frame 11 by coupling multiple pieces of the frame 11 together. The frame 11 and each seat attachment housing can be made from the same or different materials, including, metals and plastics. Though it cannot be seen in the side view of Figure IA, a typical embodiment of the stroller 10 will include at least two removable seat attachment adapters 14 (at least one along each left and right side of the stroller 10 along the stroller frame 11). For example, at least one removable seat attachment adapter can support each lateral side of the second stroller seat 15. In certain example embodiments, each of the removable seat attachment adapters 14 may be made up of one piece or multiple parts. The removable seat attachment adapters 14 may be of any design capable of securely supporting a seat on the stroller. In one example, the removable seat attachment adapter 14 is configured to have a first end that removably coupled to the frame 11 and/or seat attachment housing and a distal second end that is configured to

'568 Patent Application EX1019, p.15, line 18 to p.16, line 8	**Second Provisional EX1006, p.9, line 30 to p.10, line 23**
be removably coupled to a second stroller seat 85. The removable seat attachment adapter 84 is designed to be capable of supporting the second stroller seat 85 in front of the first stroller seat 86. The stroller 80 may also include a storage basket 87.	be removably coupled to a second stroller seat 15. The removable seat attachment adapter 14 is designed to be capable of supporting the second stroller seat 15 in front of the first stroller seat 16. The stroller 10 may also include a storage basket 17.

141. I understand Applicant's amendments did not result in allowance and the Examiner again rejected all claims in a Final Office Action. (EX1019, '568 File History, 714.) I understand the Examiner also rejected claims 1-16 as obvious over Cheng in view of Liao in further view of Cone, II. (EX1019, '568 File History, 723-734.)

142. The Examiner's rejection stated that "Cheng fails to explicitly teach: wherein the first/second seat attachment adapter is removable from the first/second seat attachment housing." (EX1019, '568 File History, 721.) The Examiner stated Cone teaches a removable seat attachment adapter and it would have been obvious to combine and use such an adapter in combination with Cheng.

Cheng fails to explicitly teach: wherein the first/second seat attachment adapter is removable from the first/second seat attachment housing.

However, Cone teaches a similar seat attachment (See, e.g., Cone: Fig. 1 -13) for a stroller (See, e.g., Cone: Fig. 1 -13, 214) with first/second seat attachment adapters (See, e.g., Cone: Fig.1-13, 216) removable from a first/second seat attachment housing (See, e.g., Cone: Fig.1-13, 267+269+304).

Cone teaches that it is well known in the art of stroller seat design to provide seat attachment adapters that removably connect to a stroller frame seat attachment housing. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the system taught by Cheng with seat attachment adapters that removably connect to the stroller frame housings such as taught by Cone, for the purpose of conveniently and beneficially allowing a user to disassemble the system easily (e.g., by disconnecting the seat from the stroller with or without the adapter still connected to the seat), and additionally presenting a seat that can be connected to a separate stroller or similar baby system (e.g., car base, highchair base, etc.). Moreover, the modification is obvious as no more than the use of familiar elements according to known methods in a manner that achieves predictable results. (See, e.g., KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398,416 (2007)).

EX1019, '568 File History, 721

143. I understand that the Applicant amended the claims to overcome the rejections of the Final Office Action. (EX1019, '568 File History, 842-846.) Claims 1 and 17 were specifically amended to recite the "front wheel support frame" and "upper tube support frame" are "rotatably adjusted to be substantially parallel."

1. (Currently Amended) A stroller, comprising:

a stroller frame comprising:

a first upper tube support frame;

a second upper tube support frame;

a first front wheel support frame rotatably adjusted to be substantially parallel with respect to the first upper tube support frame;

a second front wheel support frame rotatably adjusted to be substantially parallel with respect to the second upper tube support frame;

a first back wheel support frame rotated with respect to the first upper tube support frame; and

a second back wheel support frame rotated with respect to the second upper tube support frame;

a plurality of wheels comprising at least one front wheel and a plurality of back wheels;

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;

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, ~~wherein the first seat attachment adapter is removable from the first front wheel support frame~~;

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, ~~wherein the second seat attachment adapter is removable from the second front wheel support frame~~;

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.

17. (Currently Amended) A stroller, comprising:

a stroller frame comprising:

a first upper tube support frame;

a second upper tube support frame;

a first back wheel support frame;

a second back wheel support frame;

a first front wheel support frame;

a second front wheel support frame;

a plurality of wheels comprising at least one front wheel and a plurality of back wheels;

a first seat coupled to the stroller frame at a first vertical position of the stroller frame;

a first seat attachment housing disposed adjacent the first front wheel support frame:

a second seat attachment housing disposed adjacent the second front wheel support frame;

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, ~~wherein the first seat attachment adapter is removable from the first seat attachment housing~~ when the first upper tube support frame is substantially parallel with the first front wheel support frame;

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, ~~wherein the second seat attachment adapter is removable from the second seat attachment housing~~ when the second upper tube support frame is substantially parallel with the second front wheel support frame;

wherein the first seat is coupled along the first upper tube support frame and the second upper tube support frame and wherein a second seat is removably coupled to the first seat attachment adapter and the second seat attachment adapter.

EX1019, '568 File History, 842, 846

144. In support of the amendments, Applicant argued for the second time the support was found in the same paragraphs of the '568 Patent application as was argued after the first amendment. (EX1019, '568 File History, 838-839.) Again, this "support" is only found by the subject matter found in the 2016 Second Provisional. (EX1019, 15, l.18 - 16, l.8; see also EX1006, 9, l.30 - 10, l.23.) The support relied on by the Patent Owner for the second amendment is not found prior to the 2016 Second Provisional.

145. I understand that the Examiner found Applicant's amendments to the Final Office Action insufficient and again rejected the application in an Advisory Action. (EX1019, '568 File History, 853-854.) The Applicant then amended the independent claims a third time. (EX1019, '568 File History, 963-968.) Applicant

again stated the support was found in the same paragraphs of the ’568 Patent application as was argued after the first and second amendments. (EX1019, ’568 File History, 970-971.) Again, this “support” is only found by the subject matter found in the 2016 Second Provisional. (EX1019, 15, l 18 - 16, l 8; see also EX1006, 9, l 30 - 10, l 23.) The support relied on by the Patent Owner for the third amendment is not found prior to the 2016 Second Provisional

1. (Currently Amended) A stroller, comprising:

a stroller frame comprising:

a first upper tube support frame;

a second upper tube support frame;

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;

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;

a first back wheel support frame rotated with respect to the first upper tube support frame; and

a second back wheel support frame rotated with respect to the second upper tube support frame;

a plurality of wheels comprising at least one front wheel and a plurality of back wheels;

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;

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~~, wherein the first seat attachment adapter is removable from the first front wheel support frame~~;

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~~, wherein the second seat attachment adapter is removable from the second front wheel support frame~~;

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.

EX1019, ’568 File History, 963

146. Following this third amendment, the application was allowed. (EX1019, ’568 File History, 976-978.)

4. Claims 1-17 are allowed.

5. The following is an examiner's statement of reasons for allowance: The prior art of record when taken alone or in combination with another does not teach or fairly suggest at this time at least, among other limitations: A stroller, comprising: a stroller frame comprising: a first upper tube support frame; a second upper tube support frame; ***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; 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***; a first back wheel support frame rotated with respect to the first upper tube support frame; and a second back wheel support frame rotated with respect to the second upper tube support frame; a plurality of wheels comprising at least one front wheel and a plurality of back wheels; 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; ***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; 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; 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***, as claimed in Claim 1 and similarly claimed in Claims 10 and 17 (emphasis added to allowable limitations not suggested or taught by the prior art).

EX1019, '568 File History, 981-982

G. The '682 Patent

1. Overview of the '682 Patent

147. The '682 Patent was filed June 16, 2020, and was issued August 22, 2023. As shown below, the '682 Patent is a direct continuation of U.S. Pat. No.

10,730,543 (EX1008) which is a continuation of the '305 CIP (EX1007) The earliest claimed priority date is the December 4, 2008 ("First Provisional").

148. I understand the '682 Patent alleges priority to both the First Provisional and the Second Provisional.

RELATED APPLICATIONS

This application is a continuation of and claims the benefit to United States Application Serial No. 15/912,901, filed March 6, 2018, which is a continuation of 15/225,326, filed August 1, 2016, and issued as U.S. Patent No. 9,944,305, which claims the benefit of U.S. Application No. 62/311,224, and is a continuation-in-part of U.S. Application No. 14/597,420, filed January 15, 2015 and issued as U.S. Patent No. 9,403,550, which is a continuation-in-part of U.S. Application No. 14/261,558, filed April 25, 2014 and issued as U.S. Patent No. 8,955,869, which is a continuation-in-part of U.S. Application No. 12/631,375, which claims the benefit of U.S. Application No. 61/119,920, filed December 4, 2008, the contents of which are all incorporated by reference.

EX1020, '682 Patent File History, 3

149. The '682 Patent lists as named inventors Jon Lee, Megan Roe, Stacy Simpson, and Mark Zehfuss. (EX1010, '682 Patent, 1.)

150. It is my understanding that based on the inclusion of Mr. Lee, Ms. Roe, and Ms. Simpson there is at least one claim or claim limitation directed to the inventions disclosed by these inventors from the Second Provisional

151. In reviewing the claims and file history (discussed below), the '682 Patent appears to be directed to the "seat attachment housings" and "seat

attachment adapters" that were disclosed within the Second Provisional and which was first introduced within the '305 continuation-in-part patent.

2. '682 Patent File History

152. The '682 Patent was filed with 20 claims, wherein claims 1, 14, and 18 are independent. Original claim 1 is shown below.

Claim 1
1. A stroller, comprising: a stroller frame; a plurality of wheels comprising at least one front wheel and a plurality of back wheels; a first seat coupled to the stroller frame at a first vertical position of the stroller frame and configured to hold a first child in the stroller; a first seat attachment housing coupled to the stroller frame at a second vertical position of the stroller frame that is below the first vertical position; a second seat attachment housing coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position; wherein a first seat attachment adapter is configured to be removably coupled to the first seat attachment housing and wherein a second seat attachment adapter is configured to be removably coupled to the second seat attachment housing.

EX1020, '682 File History, 33

153. I understand the Patent Office issued a Restriction Requirement requesting the Applicant to select one of nine distinct species. (EX1020, '682 File History, 179-185). I further understand Patent Owner elected the embodiment of Figures 1-3. (EX1020, '682 File History, 187-189).

154. I understand the Examiner found the original claims unpatentable and issued a first Non-Final Office Action on October 21, 2021. (EX1020, 192-202.) Consequently, the Examiner objected to the drawings because not all claim elements were shown in the elected embodiment of Figures 1–3. (EX1020, '682 File History, 195-196.) As an example, the Examiner alleged that Figures 1–3 did not show the claimed "seat attachment housing[s]" or the "seat attachment adapter[s]." (EX1020, '682 File History, 195-196.)

a. Claim 1: **a first seat attachment housing** coupled to the stroller frame at a second vertical position of the stroller frame that is below the first vertical position; **a second seat attachment housing** coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position; wherein **a first seat attachment adapter** is configured to be removably coupled to the first seat attachment housing and wherein **a second seat attachment adapter** is configured to be removably coupled to the second seat attachment housing

b. Claim 2: the first seat attachment adapter removably coupled to the first seat attachment housing; and the second seat attachment adapter removably coupled to the second seat attachment housing

c. Claim 3: **a second seat** removably coupled to the first seat attachment adapter and the second seat attachment adapter

d. Claim 4: wherein each of the first seat attachment adapter and the second seat attachment adapter has **a first end and a distal second end**

e. Claim 5: wherein the first end comprises **a connector portion** and is releasably connected to one of the first seat attachment housing and the second seat attachment housing.

f. Claim 6: wherein the second end is releasably connected to a second seat

g. Claim 7: 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.

EX1020, '682 File History, 195-196

155. The Applicant filed an amendment on December 31, 2021 responding to the first Non-Final Office Action. (EX1020, '682 File History, 317-333.) I understand the Applicant traversed some of the drawing objections by providing a mapping of the objected to claim term to the terms used in the specification. (EX1020, '682 File History, 327-329.)

156. In response, the Patent Owner referenced certain components shown

by the existing figures (including Figure 2) as meeting the claimed elements. (EX1020, '682 File History, 327-329.) As shown below, Patent Owner stated the "seat attachment housings" are shown as the "seat attachment 20" and the "seat attachment adapters" are shown as "seat attachment element 24."

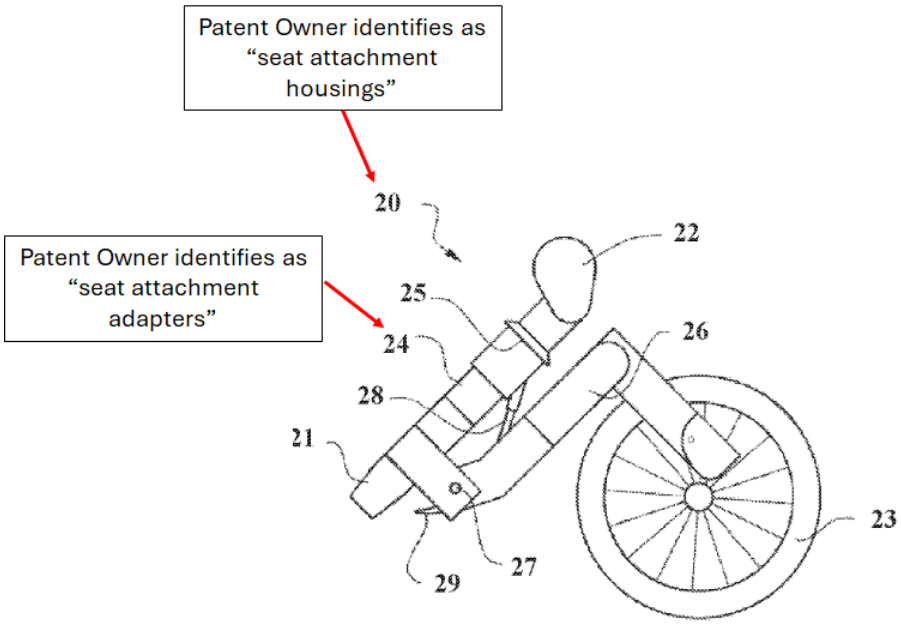


FIGURE 2

EX1020, '682 File History, 328 (Annotated)

157. But what Patent Owner is pointing to as the "housing" is the entire structure that includes the "adapter." A POSITA would not understand what Patent Owner has identified as being the claimed "housing." When read in light of the entire claim, it is clear the "housing" is coupled to the stroller frame, which element "20" clearly is not. Also, the "adapter" (as originally claimed) was "removably coupled" to the "housing." Clearly the component shown in Figure 2 does not illustrate a housing with a removably coupled adapter. A POSITA would

also not have found the "seat attachment element 24" as being the "adapter" or the "seat attachment 20" as being the "housing" given the clear disclosure from the 2016 Second Provisional and the disclosure within the '682 Patent.

158. Indeed, for the limitation relating to the "adapters" being "removably coupled" to the "housings" the Patent Owner stated the "support" is found "by the Specification published application paragraphs [0046] and [0047]." (EX1020, '682 File History, 328.) I have shown those paragraphs below which are disclosing the embodiment disclosed by Figures 8A-8H. Paragraph [0047] even references how the seat attachment housings "as described in Figures 11-14C" are formed as part of the stroller frame.

[0046] The stroller **80** can also include a first stroller seat **86** either fixedly or removably coupled to the stroller frame **81**. For example, the first stroller seat **86** can include a left connector on the left side of the first stroller seat **86** and a right connector on the right side of the first stroller seat **86** to removably couple and decouple the first stroller seat from the stroller frame **81**. In one example, each of the left connector and right connector can be cavities in the first stroller seat **86** and can be configured to receive at least a portion of a corresponding seat attachment adapter (e.g., a bayonet connector) therein. In another example embodiment, the left connector and the right connector can each be tabs or slots that are configured to be coupled to corresponding slots or tabs along the stroller frame **81**.

[0047] The stroller **80** can also include a removable seat attachment adapter **84** that is removably coupled to the frame **81** such that the seat attachment adapter **84** can be decoupled from the frame **81** and stored when a second stroller seat is not being used with the stroller **80**. In one example embodiment, each removable seat attachment adapters can be coupled to the frame by coupling the adapter **84** into a seat attachment housing disposed along the frame **81**. In one example, the seat attachment housing (such as that described in FIGS. **11-14**C below) can be integrally formed with all or a portion of the stroller frame (e.g., integrally formed with front wheel support frame **81***a*). Alternatively, the seat attachment housing can be a separate apparatus that is coupled to the frame **81** or incorporated into the frame **81** by coupling multiple pieces of the frame **81** together. The frame **81** and each seat attachment housing can be made from the same or different materials, including, metals and plastics.

EX1050, US Publication 2020/0385045, ¶¶0046-0047

159. As shown below, the Patent Owner's support for the adapters and housings is directly attributable to the disclosure found in the 2016 Second Provisional.

The stroller 10 can also include a first stroller seat 16 either fixedly or removably coupled to the stroller frame 11. For example, the first stroller seat 16 can include a left connector on the left side of the first stroller seat 16 and a right connector on the right side of the first stroller seat 16 to removably couple and decouple the first stroller seat from the stroller frame 11. In one example, each of the left connector and right connector can be cavities in the first stroller seat 16 and can be configured to receive at least a portion of a corresponding seat attachment adapter (e.g., a bayonet connector) therein. In another example embodiment, the left connector and the right connector can each be tabs or slots that are configured to be coupled to corresponding slots or tabs along the stroller frame 11.

The stroller 10 can also include a removable seat attachment adapter 14 that is removably coupled to the frame 11 such that the seat attachment adapter 14 can be decoupled from the frame 11 and stored when a second stroller seat is not being used with the stroller 10. In one example embodiment, each removable seat attachment adapters can be coupled to the frame by coupling the adapter 14 into a seat attachment housing disposed along the frame 11. In one example, the seat attachment housing (such as that described in Figures 2-5C below) can be integrally formed with all or a portion of the stroller frame (e.g., integrally formed with front wheel support frame 11a). Alternatively, the seat attachment housing can be a separate apparatus that is coupled to the frame 11 or incorporated into the frame 11 by coupling multiple pieces of the frame 11 together. The frame 11 and each seat attachment housing can be made from the same or different materials, including, metals and plastics.

EX1006, Second Provisional, 9-10

160. Aside from stating the alleged "support" for the original claims, Patent Owner amended the claims four times to overcome various rejections by the Examiner. I understand the primary reference being relied on by the Examiner during each rejection was U.S. Patent No. 7,4795,900 ("Cheng"). Below I have included all four amendments the Patent Owner presented during prosecution to overcome the Examiner's rejections.

1. (Currently Amended) A stroller, comprising:

a stroller frame;

a plurality of wheels comprising at least one ~~front~~ central wheel and a plurality of back wheels;

a first seat coupled to the stroller frame at a first vertical position of the stroller frame and configured to hold a first child in the stroller;

a first seat attachment housing coupled to the stroller frame at a second vertical position of the stroller frame that is below the first vertical position, wherein a first front wheel extends from a front of the stroller;

a second seat attachment housing coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position, wherein a second front wheel extends from the front of the stroller;

wherein a first seat attachment adapter is ~~configured to be removably~~ coupled to the first seat attachment housing and wherein a second seat attachment adapter is ~~configured to be removably~~ coupled to the second seat attachment housing.

EX1020, '682 File History, 321

1. (Currently Amended) A stroller, comprising:

a stroller frame;

a plurality of wheels comprising ~~at least one central wheel and~~ a plurality of back wheels;

a first seat coupled to the stroller frame at a first vertical position of the stroller frame ~~and configured to hold a first child in the stroller~~;

a first seat attachment housing coupled to the stroller frame at a second vertical position of the stroller frame that is below the first vertical position, wherein a first front wheel extends from a front of the stroller;

a second seat attachment housing coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position, wherein a second front wheel extends from the front of the stroller;

~~wherein~~ a first seat attachment adapter[[is]] coupled to the first seat attachment housing; and

~~wherein~~ a second seat attachment adapter[[is]] coupled to the second seat attachment housing.

EX1020, '682 File History, 468

1. (Currently Amended) A stroller, comprising:

a stroller frame;

a plurality of wheels comprising a plurality of back wheels;

a first seat coupled to the stroller frame at a first vertical position of the stroller frame;

a first seat attachment housing coupled to the stroller frame at a second vertical position of the stroller frame that is below the first vertical position, wherein a first front wheel extends from a front of the stroller;

a second seat attachment housing coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position, wherein a second front wheel extends from the front of the stroller;

a first seat attachment adapter spaced from the first seat attachment housing and coupled to the first seat attachment housing by a first attachment frame member; and

a second seat attachment adapter spaced from the first seat attachment housing and coupled to the second seat attachment housing by a second attachment frame member bar.

EX1020, '682 File History, 653

1. (Currently Amended) A stroller, comprising:

a stroller frame comprising a handle portion and a front end portion;

a plurality of wheels comprising a plurality of back wheels;

a first seat coupled to the stroller frame at a first vertical position of the stroller frame, wherein the first seat is disposed closer to the handle portion than the front end portion of the stroller frame;

a first seat attachment housing coupled to the stroller frame at a second vertical position of the stroller frame that is below the first vertical position, wherein a first front wheel and a second front wheel extend ~~extends~~ from [[a]] the front end of the stroller;

a second seat attachment housing coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position, wherein the third vertical position is closer to the front end portion than the handle portion ~~a second front wheel extends from the front of the stroller~~;

a first seat attachment adapter spaced from ~~the first seat attachment housing~~ and coupled to the first seat attachment housing by a first attachment frame member; and

a second seat attachment adapter spaced from ~~the first seat attachment housing~~ and coupled to the second seat attachment housing by a second attachment frame member; [[bar]]

wherein the first seat and the second seat, when connected to the frame, are arranged in an inline descending configuration along the stroller frame.

EX1020, '682 File History, 817

161. I understand after the fourth amendment the Examiner issued a Notice for Allowance on April 10, 2023. (EX1020, '682 File History, 839-848.)

VI. Claim Construction

162. I understand that in proceedings at the Patent Trial and Appeal Board, claims are construed under the "Phillips standard." I understand that this means the claims are construed in accordance with the ordinary and customary meaning of such claims as understood by one of ordinary skill in the art ("skilled artisan") in

light of the specification and prosecution history of the patent. I understand that this is the same claim construction standard employed in district courts.

163. I understand that intrinsic evidence is the primary means by which claim terms are interpreted. The intrinsic evidence includes the claims themselves, the specification of the patent in which the claims appear, and the prosecution history of the patent.

164. I understand that a patentee may give a special definition to a claim term that differs from the normal meaning of the term. If the patent specification sets out an uncommon definition that would give one of ordinary skill in the art notice of the change in meaning, the specification's definition governs the construction of that term.

165. I understand that extrinsic evidence, such as expert and inventor testimony, dictionaries, and learned treatises, can also inform the meaning of a claim term. However, extrinsic evidence is less significant than the intrinsic evidence in determining the meaning of a claim term. Further, I understand that extrinsic evidence cannot be used to vary, contradict, expand, or limit the claim language from how it is defined, even by implication, in the specification or file history.

166. I understand that in proceedings at the Patent Trial and Appeal Board, claims are construed under the "Phillips standard." I understand that this means the

claims are construed in accordance with the ordinary and customary meaning of such claims as understood by one of ordinary skill in the art ("skilled artisan") in light of the specification and prosecution history of the patent. I understand that this is the same claim construction standard employed in district courts.

167. I understand that intrinsic evidence is the primary means by which claim terms are interpreted. The intrinsic evidence includes the claims themselves, the specification of the patent in which the claims appear, and the prosecution history of the patent.

A. "Handle Portion"

168. The term "handle portion" is recited by claim 1 of the '682 Patent. As an example, independent claim 1 requires:

a stroller frame comprising a handle portion and a front end portion;

(EX1010, '682 Patent, Claim 1, 17:7-8.)

169. In my opinion, "handle portion" should be construed as the "portion of frame coupled to the upper ends of the left and right upper tube support frame."

170. This construction is supported by the specification. As illustrated in Figure 8a below, the handle portion (81*d* in pink) is the part of the frame (81) coupled to the left and right upper tube support members (81*c* in red) extending toward the front end portion of the frame.

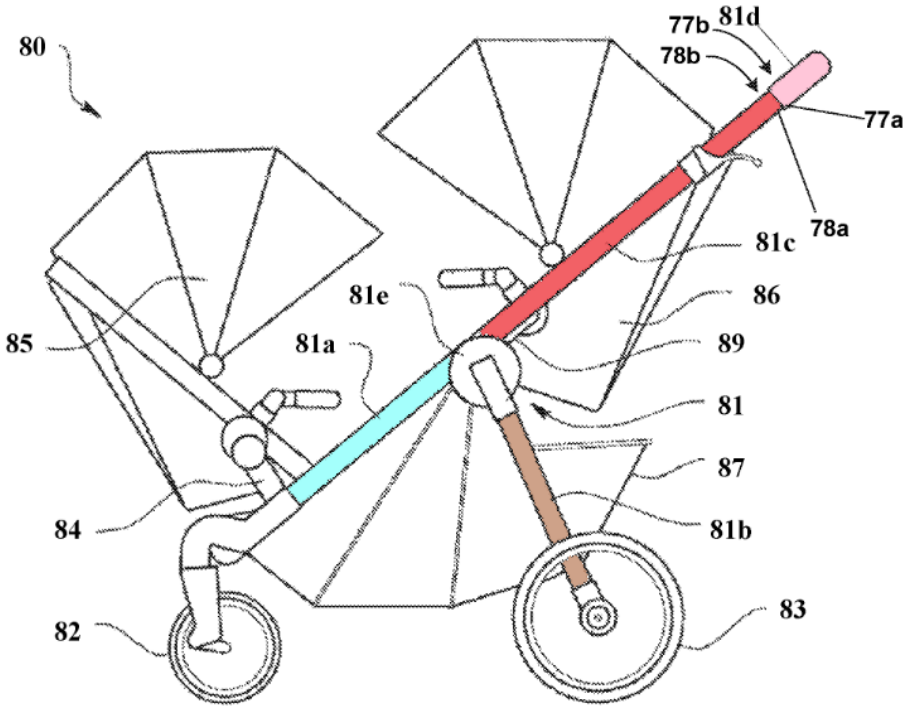


FIGURE 8A

EX1010, '682 Patent, Fig. 8A (Annotated)

171. During prosecution of the '543 Patent (to which the '682 Patent claims priority), the Patent Owner requested the specification to be amended to expressly describe what is the "handle portion."

Please amend the first full paragraph beginning on page 12 of the specification that begins "In one example embodiment, the stroller frame 81 can include a pair of front wheel support frames" as follows.

In one example embodiment, the stroller frame 81 can include a pair of front wheel support frames 81a (only the left front wheel support frame is shown), a pair of back wheel support frames 81b (only the left back wheel support frame is shown), a pair of upper tube support frames 81c (only the left upper tube support frame is shown), a handle portion 81d having a first end 77a coupled to the end 79a of the left upper tube support frame 81c and a distal second end 77b (only the first end 77a of the handle portion 81d is shown) coupled to the end 79b of the right upper tube support frame 81c (only the left upper tube support frame is shown), and foot rest support frame 81f having a first end coupled to the left front wheel support frame 81a (either directly or via the first

EX1018, '543 File History, 639

172. While a continuation of the earlier '543 Patent, I noticed the '682 Patent did not include all the changes which had been made to the specification. I understand from counsel the changes which had been made to the specification should have been carried through into the '682 Patent specification. Regardless, even the language I have emphasized below supports my construction.

> In one example embodiment, the stroller frame 81 can include a pair of front wheel support frames 81*a* (only the left front wheel support frame is shown), a pair of back wheel support frames 81*b* (only the left back wheel support frame is shown), a pair of upper tube support frames 81*c* (only the left upper tube support frame is shown), ***a handle portion 81d having a first end coupled to the left upper tube support frame 81c and a distal second end coupled to the right upper tube support frame 81c***, and foot rest support frame 81*f* having a first end coupled to the left front wheel support frame 81*a* (either directly

> or via the first seat attachment housing 1105 discussed below in FIG. 11) and a distal second end coupled to the right front wheel support frame 81*a* (either directly of via the second seat attachment housing 1110 discussed below in FIG. 11). In certain example embodiments, each front wheel support frame 81*a* can be fixedly coupled or rotatably coupled to its corresponding upper tube support frame 81*c*. Further, in certain example embodiments, the left upper tube support frame 81c, handle 81d, and right upper tube support frame 81*c* can be made from a single unitary piece of material, such as a single piece of bent, hollow-core metal or plastic tubing. Alternatively, each of the left upper tube support frame 81*c*, handle 81*d*, and right upper tube support frame 81*c* can be separate pieces of the same or different material that are coupled to one another.

(EX1010, ’682 Patent, 8:59-9:17.)

173. Finally, I am informed that the Patent Owner agrees with this construction, asserting that the “plain and ordinary meaning” of “handle portion” as recited in related patents means a “portion of frame coupled to the left and right upper tube support frame.”

C. “Handle portion” (’231 Patent claim 1; ’729 Patent, claim 1)

Baby Jogger’s Proposed Construction	UPPAbaby’s Proposed Construction
Does not require construction. Alternatively, plain and ordinary meaning, which is “portion of frame coupled to the left and right upper tube support frame”	Lateral frame portion that is grasped when pushing the stroller.

EX1055, Opening Claim Construction Brief, 14

VII. Priority of the ’682 Patent

174. Again, it is my understanding that for the ’682 Patent, the Patent Owner alleges a priority date of December 4, 2008 based on the filing of the First Provisional.

175. It is also my understanding that Petitioner is disputing whether the ’682 Patent is entitled to the alleged December 4, 2008 priority date.

176. I have therefore been asked to provide my opinion as to whether the First Provisional provides written description to support independent claim 1 (and its dependent claims) of the ’682 Patent.

177. Again, the First Provisional, the First Non-Provisional, and ’869 Patent list Mr. Zehfuss as the sole inventor and include disclosure relating to Embodiments A and B. (See EX1003, EX1004.)

178. On March 21, 2016, the Second Provisional was filed identifying three new inventors (Lee, Roe, and Simpson) not listed on the First Provisional. (EX1006, Second Provisional, 1.)

179. In Section V. “Overview of the Baby Jogger Patent Family,” I explain that a POSITA would have understood the Second Provisional includes new material not disclosed within the First Provisional.

180. I have been informed that to be a named inventor of a U.S. Patent, one must have contributed to some aspect of the matter claimed. Again, the face of the ’682 Patent lists Zehfuss, Lee, Roe, and Simpson. (EX1010, ’682 Patent, Cover.)

181. Given the ’682 Patent lists the three inventors from the Second Provisional, there is some claimed limitations to which the new inventors contributed. It is my understanding that this would mean one or more claims are based on material from the Second Provisional and therefore not entitled to the December 4, 2008 priority date.

182. Regardless, when the ’305 CIP was filed the Patent Owner extensively revised and departed from the pre-’305 CIP specification. (See EX1046, Comparison.) It is my understanding the Patent Owner was not obligated to make such extensive revisions to the ’305 CIP.

183. Given the extensive modifications and additions, a POSITA reviewing the ’305 CIP would understand the disclosure of the First Non-Provisional (and First Provisional) to not convey sufficient disclosure to support that Mr. Zehfuss was fully in possession of all the claimed subject matter of independent claim 1 (and corresponding dependent claims) of the ’682 Patent.

184. Instead, it is my opinion a POSITA would find independent claim 1 is not supported until the Second Provisional (which includes the three new inventors) and additional revisions that first appear only in the ’305 CIP.

185. Since I believe a POSITA would find the pre-’305 CIP specification does not support the claim limitations of the ’682 Patent, it is my understanding the claims cannot claim a priority date of 2008. It is my understanding the Patent

Owner is not entitled to a priority date of the First Provisional for at least independent claim 1 of the ’682 Patent because they were not in possession of the claimed invention in 2008.

186. Instead, it is my understanding that if a POSITA finds independent claim 1 of the ’682 Patent is fully supported by the Second Provisional, the claims should only be permitted the March 21, 2016 date of the Second Provisional. It is my understanding this 2016 date would be used to determine what would constitute “prior art” to the claims of the ’682 Patent.

187. I therefore provide my analysis of claim 1 of the ’682 Patent below with respect to the limitations I do not believe are supported by the 2008 First Provisional or the First Non-Provisional filed in December 2009.

1. “first vertical position,” “second vertical position,” and “third vertical position,”

188. First, the ’682 Patent claims certain “vertical position” locations relating to the removable seats and the “attachment adapters.” The details and reasoning regarding the vertical positioning between these components was added to the ’305 CIP specification from the Second Provisional in 2016. Prior to 2016, a POSITA would not have believed the inventors were in possession of the below reasoning and details regarding the vertical positioning between the removable seats and “attachment adapters.”

In certain examples, each of the removable seat attachment adapters 84 removably couples to the second stroller seat 85 at a vertical height that is substantially below the vertical height that the first stroller seat 86 attaches to the stroller frame 81, thereby positioning the second stroller seat 85 at a vertical position that is substantially below the vertical position of the first stroller seat 86 when both the first stroller seat 86 and the second stroller seat 85 are coupled to the stroller 80. The difference in vertical positioning of the second stroller seat 85 as compared to the first stroller seat 86 provides improved access to the first stroller seat 86 from the front of the stroller 10 when both stroller seats 85, 86 are coupled to the stroller 80. Further, in certain example embodiments, the front stroller seat 85 can be positioned substantially over the front wheels 82 so that the stroller 80 remains stable. For example, the second stroller seat 85 can be located substantially over the front wheels 82 and the first stroller seat 86 can be located substantially over the rear wheels 83. In addition, the seats 85, 86 can be positioned such that the center of gravity of the stroller 80 is between the front 82 and rear 83 wheels.

EX1046, Comparison, 18

In certain examples, each of the removable seat attachment adapters 14 removably couples to the second stroller seat 15 at a vertical height that is substantially below the vertical height that the first stroller seat 16 attaches to the stroller frame 11, thereby positioning the second stroller seat 15 at a vertical position that is substantially below the vertical position of the first stroller seat 16 when both the first stroller seat 16 and the second stroller seat 15 are coupled to the stroller 10. The difference in vertical positioning of the second stroller seat 15 as compared to the first stroller seat 16 provides improved access to the first stroller seat 16 from the front of the stroller 10 when both stroller seats 15, 16 are coupled to the stroller 10. Further, in certain example embodiments, the front stroller seat 15 can be positioned substantially over the front wheels 12 so that the stroller 10 remains stable. For example, the second stroller seat 15 can be located substantially over the front wheels 12 and the first stroller seat 16 can be located substantially over the rear wheels 13. In addition, the seats 15, 16 can be positioned such that the center of gravity of the stroller 10 is between the front 12 and rear 13 wheels.

EX1006, Second Provisional, 10-11

189. Since both claim 1 positively recites the vertical height positioning between the seats and "attachment adapters" as disclosed by the Second Provisional, it is my opinion a POSITA would not have found the Patent Owner to

have been in possession of this claimed feature prior to the March 2016 filing date of the Second Provisional. A POSITA would have understood reading the pre-'305 CIP specification (*i.e.*, the First Non-Provisional) that there is not sufficient written description support for this claimed feature. My opinion is based on the reasoning as to why this claimed feature is necessary and important as detailed and disclosed by the written description of the Second Provisional.

2. "Seat attachment adapters" coupled to a "front wheel [stroller] frame" or "seat attachment housings"

190. Claim 1 recites (1) the "seat attachment housings" are "coupled to the stroller frame"; and (2) the "seat attachment adapters" are "coupled" to the "seat attachment housings." (EX1010, Claim 1.) A POSITA would not have found the Patent Owner as being in possession of these claim features prior to 2016.

191. As I have shown in the chart below, the Second Provisional states the seat attachment adapter could have a first end removably coupled to the "[stroller] frame 11 **and/or** seat attachment housing." This exact language was then included within the '305 CIP. The description of these elements is not disclosed prior to the Second Provisional. In other words, the First Provisional, the First Non-Provisional, nor the '869 Patent provide written description support for how the claimed "seat attachment adapter" could be coupled to the "seat attachment housings."

Second Provisional	'305 CIP
Though it cannot be seen in the side view of Figure 1A, a typical embodiment of the stroller 10 will include at least two removable seat attachment adapters 14 (at least one along each left and right side of the stroller 10 along the stroller frame 11). For example, at least one removable seat attachment adapter can support each lateral side of the second stroller seat 15. In certain example embodiments, each of the removable seat attachment adapters 14 may be made up of one piece or multiple parts. The removable seat attachment adapters 14 may be of any design capable of securely supporting a seat on the stroller. *In one example, the removable* ***seat attachment adapter*** *14 is configured to have a first end that [is] removably coupled to* ***the frame 11 and/or seat attachment housing*** *and a distal second end that is configured to be removably coupled to a second stroller seat 15.* The removable seat attachment adapter 14 is designed to be capable of supporting the second stroller seat 15 in front of the first stroller seat 16. The stroller 10 may also include a storage basket 17. **EX1006, Second Provisional, 10**	Though it cannot be seen in the side view of FIG. 8A, a typical embodiment of the stroller 80 will include at least two removable seat attachment adapters 84 (at least one along each left and right side of the stroller 80 along the stroller frame 81). For example, at least one removable seat attachment adapter can support each lateral side of the second stroller seat 85. In certain example embodiments, each of the removable seat attachment adapters 84 may be made up of one piece or multiple parts. The removable seat attachment adapters 84 may be of any design capable of securely supporting a seat on the stroller. *In one example, the removable* ***seat attachment adapter*** *84 is configured to have a first end that is removably coupled to* ***the frame 81 and/or seat attachment housing*** *and a distal second end that is configured to be removably coupled to a second stroller seat 85*. The removable seat attachment adapter 84 is designed to be capable of supporting the second stroller seat 85 in front of the first stroller seat 86. The stroller 80 may also include a storage basket 87. **EX1007, '305 CIP, 10:20-38**

192. A POSITA reviewing the complete Baby Jogger patent-family chain would understand the Second Provisional is the first time written description

support is provided for an "attachment adapter" that accomplishes this functionality. A POSITA would therefore not find the pre-'305 CIP specification (*e.g.*, First Non-Provisional) as providing written description support for an "attachment adapter" that can be coupled to either (1) the stroller frame or (2) the "seat attachment housings."

193. The Second Provisional even includes a "claim" very similar to what was claimed by the originally filed "claim 1" of the '682 Patent. As I have demonstrated below, both the 2016 Provisional Application (claim 1) and the '682 Patent (originally filed claim 1) recite: (1) the "housings" being attached to the "stroller frame"; and (2) the "seat attachment adapters" being coupled to "seat attachment housings."

2016 Second Provisional – Claim 1 **EX1006, Second Provisional, 20**	**'682 Patent – Claim 1 (as filed)** **EX1020, '682 File History, 33**
1. A stroller, comprising:	1. A stroller, comprising:
a stroller frame;	***a stroller frame***;
a plurality of wheels;	***a plurality of wheels*** comprising at least one front wheel and a plurality of back wheels;
a first seat coupled to the stroller frame;	***a first seat coupled to the stroller frame*** at a first vertical position of the stroller frame and configured to hold a first child in the stroller;
a ***first seat attachment housing disposed along a first portion of the stroller frame***;	a ***first seat attachment housing coupled to the stroller frame*** at a second vertical position of the stroller frame that is below the first vertical position;
a second seat attachment housing disposed along a second portion of the stroller frame;	***a second seat attachment housing coupled to the stroller frame*** at a third vertical position of the stroller frame that is below the first vertical position;
a ***first removable seat attachment adapter configured to be removably coupled to the first seat attachment housing***; and	wherein ***a first seat attachment adapter is 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***.	wherein ***a second seat attachment adapter is configured to be removably coupled to the second seat attachment housing***.

194. I further include claim 1 of the '682 Patent as issued to show how the support for the claimed matter comes from the 2016 Second Provisional.

2016 Second Provisional – Claim 1 **EX1006, Second Provisional, 33**	**'682 Patent – Claim 1 (as issued)** **EX1010, '682 Patent, Claim 1**
1. A stroller, comprising:	1. A stroller, comprising:
a stroller frame;	***a stroller frame*** comprising a handle portion and a front end portion;
a plurality of wheels;	***a plurality of wheels*** comprising a plurality of back wheels;
a first seat coupled to the stroller frame;	***a first seat coupled to the stroller frame*** at a first vertical position of the stroller frame, wherein the first seat is disposed closer to the handle portion than the front end portion of the stroller frame;
a ***first seat attachment housing disposed along a first portion of the stroller frame***;	a ***first seat attachment housing coupled to the stroller frame*** at a second vertical position of the stroller frame that is below the first vertical position, wherein a first front wheel and a second front wheel extend from the front end of the stroller;
a second seat attachment housing disposed along a second portion of the stroller frame;	***a second seat attachment housing coupled to the stroller frame*** at a third vertical position of the stroller frame that is below the first vertical position, wherein the third vertical position is closer to the front end portion than the handle portion;
a ***first removable seat attachment adapter configured to be removably coupled to the first seat attachment housing***; and	a ***first seat attachment adapter*** spaced from and ***coupled to the first seat attachment housing*** by a first attachment frame member; and
a ***second removable seat attachment adapter configured to be removably coupled to the second seat attachment***	***a second seat attachment adapter*** spaced from and ***coupled to the second seat attachment housing*** by

housing.	a second attachment frame member;
	wherein the first seat and the second seat, when connected to the frame, are arranged in an inline descending configuration along the stroller frame.

195. It is my opinion a POSITA would have further understood that inventors Lee, Roe, and Simpson were the inventors in possession of (1) the "housings" being attached to the "stroller frame"; and (2) the "seat attachment adapters" being coupled to "seat attachment housings."

196. I have reviewed and believe a POSITA would conclude the dependent claims of the '682 Patent pertaining to the structure, operation and location of the "adapters" and "housings" are nearly the same as those found within the dependent claims of the 2016 Second Provisional.

197. It is my opinion that a POSITA would find Mr. Zehfuss did not invent nor was in possession of the claimed "seat attachment adapters" or "seat attachment housings" because he is not listed as an inventor for the Second Provisional when the "seat attachment adapters" and "seat attachment housings" were first claimed and disclosed. It is also my opinion that a POSITA would find Mr. Zehfuss did not invent nor was in possession of the claimed (1) the "housings" being attached to the "stroller frame"; and (2) the "seat attachment adapters" being coupled to "seat attachment housings." A POSITA would further find the structure,

operation, locations of the "adapters" and "housings" recited by the dependent claims are also only supported by the 2016 Second Provisional.

198. My opinion is further supported by the fact that prior to the inclusion of the Second Provisional, there is no disclosure of "seat attachment adapters" or "seat attachment housings" in the pre-'305 CIP specification (*e.g.*, EX1002, First Non-Provisional, 36-44.)

199. As I also explained above, the '305 CIP is the first time extensive written description support is provided regarding the design and operational aspects of the "seat attachment adapters" and "seat attachment housings." (See *e.g.*, EX1007, '305 CIP, 9:62-11:58, 12:37-16:67.)

200. As I explained in my "Overview of the Baby Jogger Patent Family" section, Figures 10 and 11 were added when the '869 Patent was filed. But I do not believe a POSITA would have found these figures to have been supported by the First Provisional. Regardless, it is also my opinion a POSITA would understand these figures do *not* disclose the claimed "seat attachment adapters" and "seat attachment housings."

201. My understanding is supported by the disclosure added to the '305 CIP below describing Figures 10 and 11.

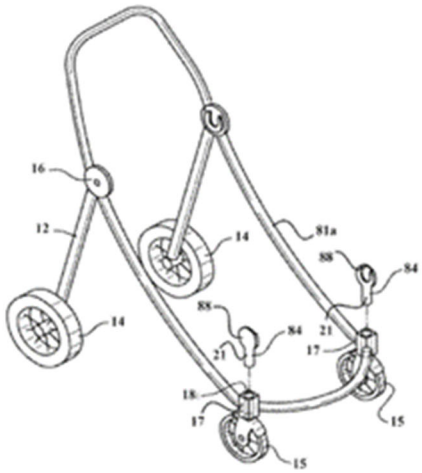


FIGURE 9

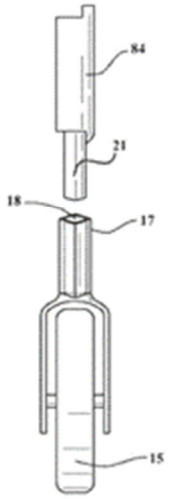


FIGURE 10

In one example embodiment, as shown in FIGS. **9-10**, the stroller **80** can include one or more, and preferably two, seat support elements **84**. The seat support element **84** is connected to and can be removably coupled to the stroller **80** front wheel support frame **81***a*. In certain example embodiments, the seat support element **84** is adjacent to the front wheel support portion **81***a* of frame **81**. Alternatively, the seat support element **84** is simply forward of and positioned at a vertical level lower than the attachment point for the first stroller seat **86** (FIG. **8**A) on the stroller **80**. The seat support element **84** is capable of supporting a second stroller seat **85** in front of the stroller seat **86** (see FIG. **8**A). This provides convenience and versatility to a user of the stroller **80**. Seat support element **84** may be fixedly attached or removably attached to front wheel support portion **81***a*. In certain example embodiments, the front seat **85** may be positioned substantially over the front wheels **15** so the stroller **80** remains stable. Preferably, the seats **85**, **86** should be positioned such that the center of gravity of the stroller **80** is between the front **15** and rear **14** wheels. If not an additional wheel may be placed on the attachment as previously described. The seat support element **84** can further include a seat connector **88**. In one example, the seat connector **88** can be disposed along a top end of the seat support element **84**. The example seat connector **88** may be a multipurpose general connector that allows different seats to be interchanged on the seat support element **84**. Any style seat may be configured to connect to the seat connector **88**, such as but not limited to, a stroller seat, a baby seat, a bassinet, a pram, a baby carrier, or a car seat, for example. As shown in FIG. **9**, the seat support element **84** can also include a connector portion **21**. The connector portion **21** is capable of connecting the seat attachment to the frame **81** via the attachment portion **17** and the slot **18**.

In certain example embodiments, the connector portion **21** of the seat attachment **20** has a cylindrical or substantially cylindrical shape. The connector portion **21** may be inserted into a cylindrical or substantially cylindrical slot **18** of the attachment portion **17** of the stroller **80** of FIG. **9-10** to secure the seat attachment and convert the single stroller into a double stroller, as shown in FIG. **8**A. The connector portion **21** may be of a solid or tubular construction and may be any cross-sectional shape including, but not limited to, circular, polygonal, square, rectangular, and triangular, for example.

EX1007, '305 CIP, 11:59-12:36, Figs. 9-10

202. When included in the '305 CIP, the Patent Owner deliberately chose to identify Figures 10-11 as disclosing a "seat support element 84" and ***not*** a "seat attachment adapter 84." The Patent Owner also identified an "attachment portion 17" and nowhere does the Patent Owner indicate this to be the same or equivalent to the disclosed "seat attachment housings 1105."

203. In my opinion, a POSITA would understand the distinction between these elements within the disclosure is intentional. A POSITA would also understand the disclosure of "seat attachment adapters 84"/"seat attachment housings 1105" is intended to convey how these elements are different from a "seat support element"/"attachment portion." (See *e.g.*, EX1007, '305 CIP, 7:47-8:38, 8:63-16:14.)

204. Indeed, an objective inquiry would indicate that it wasn't until 2016 that the Patent Owner included an extensive revision detailing the features illustrated by Figures 9 and 10, when Patent Owner purposely did not use the terminology "seat attachment adapters 84"/"seat attachment housings 1105." Had the Patent Owner felt Figures 9 and 10 conveyed "seat attachment adapters 84"/"seat attachment housings 1105," Patent Owner clearly could have chosen to use those terms or at least indicate how they were similar. Patent Owner elected not to do this, further informing a POSITA that these embodiments and elements are different and distinct.

205. As I also explained in the '682 File History Section above, when discussing the limitation relating to the "adapters" being "removably coupled" to the "housings" the Patent Owner stated the "support" is found "by the Specification published application paragraphs [0046] and [0047]." (EX1020, '682 File History, 328.) I again show those paragraphs below which are disclosing the

embodiment disclosed by Figures 8A-8H. Paragraph [0047] even references how the seat attachment housings "as described in Figures 11-14C" are formed as part of the stroller frame.

[0046] The stroller **80** can also include a first stroller seat **86** either fixedly or removably coupled to the stroller frame **81**. For example, the first stroller seat **86** can include a left connector on the left side of the first stroller seat **86** and a right connector on the right side of the first stroller seat **86** to removably couple and decouple the first stroller seat from the stroller frame **81**. In one example, each of the left connector and right connector can be cavities in the first stroller seat **86** and can be configured to receive at least a portion of a corresponding seat attachment adapter (e.g., a bayonet connector) therein. In another example embodiment, the left connector and the right connector can each be tabs or slots that are configured to be coupled to corresponding slots or tabs along the stroller frame **81**.

[0047] The stroller **80** can also include a removable seat attachment adapter **84** that is removably coupled to the frame **81** such that the seat attachment adapter **84** can be decoupled from the frame **81** and stored when a second stroller seat is not being used with the stroller **80**. In one example embodiment, each removable seat attachment adapters can be coupled to the frame by coupling the adapter **84** into a seat attachment housing disposed along the frame **81**. In one example, the seat attachment housing (such as that described in FIGS. **11-14**C below) can be integrally formed with all or a portion of the stroller frame (e.g., integrally formed with front wheel support frame **81***a*). Alternatively, the seat attachment housing can be a separate apparatus that is coupled to the frame **81** or incorporated into the frame **81** by coupling multiple pieces of the frame **81** together. The frame **81** and each seat attachment housing can be made from the same or different materials, including, metals and plastics.

EX1050, US Publication 2020/0385045, ¶¶0046-0047

206. Again, the Patent Owner's identified "support" for the adapters and housings is directly attributable to the disclosure found in the 2016 Second Provisional. It is not attributable nor found in the 2008 First Provisional invented by Mr. Zehfuss.

The stroller 10 can also include a first stroller seat 16 either fixedly or removably coupled to the stroller frame 11. For example, the first stroller seat 16 can include a left connector on the left side of the first stroller seat 16 and a right connector on the right side of the first stroller seat 16 to removably couple and decouple the first stroller seat from the stroller frame 11. In one example, each of the left connector and right connector can be cavities in the first stroller seat 16 and can be configured to receive at least a portion of a corresponding seat attachment adapter (e.g., a bayonet connector) therein. In another example embodiment, the left connector and the right connector can each be tabs or slots that are configured to be coupled to corresponding slots or tabs along the stroller frame 11.

The stroller 10 can also include a removable seat attachment adapter 14 that is removably coupled to the frame 11 such that the seat attachment adapter 14 can be decoupled from the frame 11 and stored when a second stroller seat is not being used with the stroller 10. In one example embodiment, each removable seat attachment adapters can be coupled to the frame by coupling the adapter 14 into a seat attachment housing disposed along the frame 11. In one example, the seat attachment housing (such as that described in Figures 2-5C below) can be integrally formed with all or a portion of the stroller frame (e.g., integrally formed with front wheel support frame 11a). Alternatively, the seat attachment housing can be a separate apparatus that is coupled to the frame 11 or incorporated into the frame 11 by coupling multiple pieces of the frame 11 together. The frame 11 and each seat attachment housing can be made from the same or different materials, including, metals and plastics.

EX1006, Second Provisional, 9-10

207. It is therefore my opinion that a POSITA would have understood claim 1 (and all dependent claims) are not supported by the First Provisional, the First Non-Provisional, the ’869 Patent, and the ’550 Patent (EX1005). A POSITA would not have found the Patent Owner to be in possession of the claimed “adapters” and “housings” prior to the 2016 Second Provisional.

3. “handle portion”

208. Claim 1 of the ’682 Patent requires a “handle portion.” As discussed above, the “handle portion” should be construed as the “portion of frame coupled to the upper ends of the left and right upper tube support frame.”

209. Prior to the filing of the Second Provisional, all the applications in the patent family disclosed a "handle portion" that was structurally different from the "handle portion" claimed in the '682 Patent. These prior applications did not disclose a handle portion that was coupled to the upper tube support frame. Indeed, none of these applications disclosed an upper tube support frame. Instead, they disclosed a "handle portion" that was the entire portion of the frame above the "folding mechanism 81d."

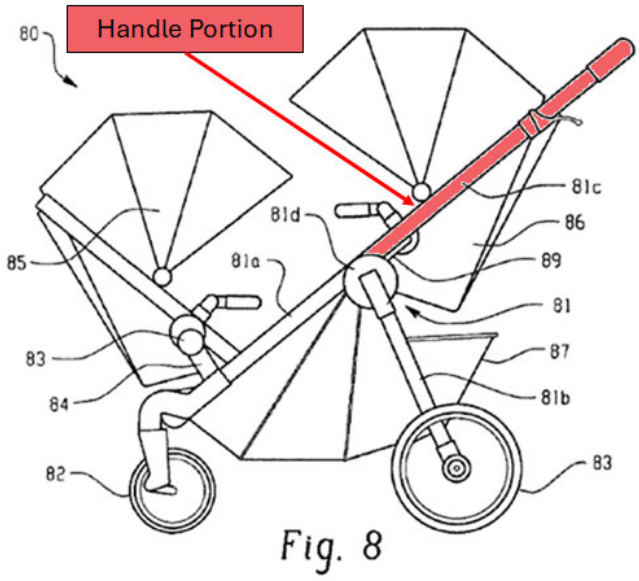


Fig. 8

ment. Stroller **80** comprises a frame **81** capable of supporting the stroller seat **86**. In this embodiment, the frame **81** comprises a front wheel support portion **81***a*, a back wheel support portion **81***b*, and a handle portion **81***c*. The frame **81** of the embodiment of the stroller **80** further comprises a folding mechanism **81***d* that connects front wheel support portion **81***a*, a back wheel support portion **81***b*, and a handle portion **81***c*. The folding mechanism **81***d* allows the stroller to be folded in a more compact size for storing or transportation. FIG. **8**A shows stroller **80** in a folded configuration.

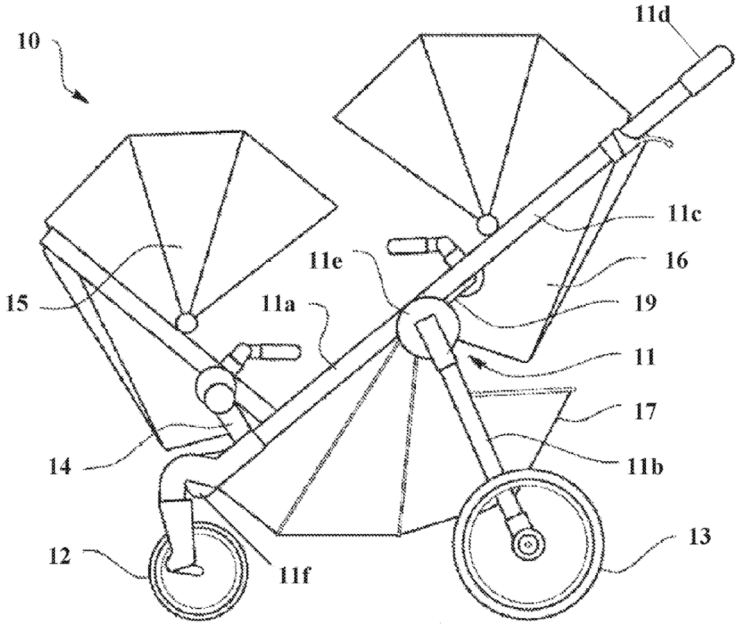
EX1003, FIG. 8 (Annotated) and ¶0043

210. In 2016, the Patent Owner redefined the stroller frame structure to include: (1) "front wheel support frames 11a;" (2) "back wheel support frames 11b;" (3) "upper tube support frames 11c;" and (4) "handle portion 11d." The redefined "handle portion 11d" was stated as being coupled to each end of the

"upper tube support frame[s] 11c." This first disclosure of an embodiment in which the handle portion was coupled to an upper tube support frame was in the Second Provisional (March 21, 2016).

> In one example embodiment, the stroller frame 11 can include a pair of front wheel support frames 11a (only the left front wheel support frame is shown), a pair of back wheel support frames 11b (only the left back wheel support frame is shown), a pair of upper tube support frames 11c (only the left upper tube support frame is shown), a handle portion 11d having a first end coupled to the left upper tube support frame 11c and a distal second end coupled to the right upper tube support frame 11c, and foot rest support frame 11f having a first end coupled to the left front wheel support frame 11a (either directly or via the first seat attachment housing 205 discussed below in Figure 2) and a distal second end coupled to the right front wheel support frame 11a (either directly of via the second seat attachment housing 210 discussed below in Figure 2). In certain

EX1006, 8



EX1006, Fig. 1A

211. This disclosure was then incorporated into the '305 CIP. (EX1007,

1:6-21.)

> Further, in certain example embodiments, the **left upper tube support frame 81*c*, handle 81*d*, and right upper tube support frame 81*c* can be made from a single unitary piece** of material, such as a single piece of bent, hollow-core metal or plastic tubing. **Alternatively, each of the left upper tube support frame 81*c*, handle 81*d*, and right upper tube support frame 81*c* can be separate pieces** of the same or different material that are coupled to one another.

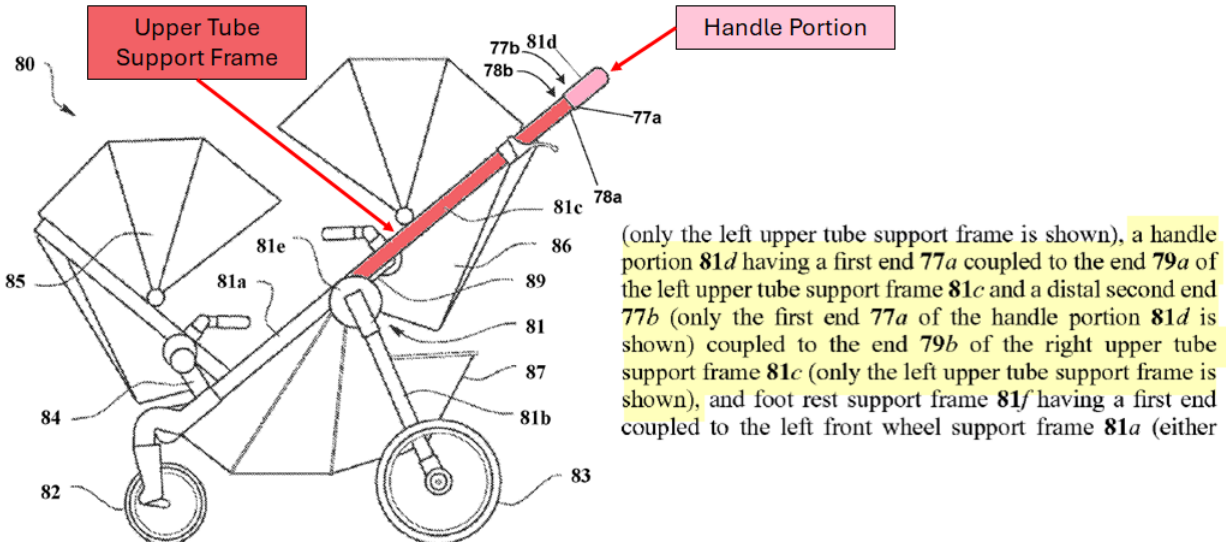
(EX1007, '305 CIP, 9:13-21.)

212. In the subsequent '543 Patent, the Patent Owner then, in response to an objection from the Examiner, added additional detail regarding where the handle portion starts and ends and is coupled to the upper tube support frames. (EX1018, 636, 639.) These changes became part of the '543 Patent as issued.

Please amend the first full paragraph beginning on page 12 of the specification that begins "In one example embodiment, the stroller frame 81 can include a pair of front wheel support frames" as follows.

In one example embodiment, the stroller frame 81 can include a pair of front wheel support frames 81a (only the left front wheel support frame is shown), a pair of back wheel support frames 81b (only the left back wheel support frame is shown), a pair of upper tube support frames 81c (only the left upper tube support frame is shown), a handle portion 81d having a first end 77a coupled to the end 79a of the left upper tube support frame 81c and a distal second end 77b (only the first end 77a of the handle portion 81d is shown) coupled to the end 79b of the right upper tube support frame 81c (only the left upper tube support frame is shown), and foot rest support frame 81f having a first end coupled to the left front wheel support frame 81a (either directly or via the first

Ex. 1018, 639



EX1008, FIG. 8A (Annotated), 9:1-7

213. The redefined "handle portion" became more important to a POSITA when the '305 CIP was filed as the Patent Owner also incorporated new material reflecting how it could be formed as a part of the "upper tube support frame 81c" or it could be "separate pieces … that are coupled to one another." I have included both the '305 CIP and the '543 Patent below to illustrate the further refinement of how the "handle portion" was defined.

> … a handle portion 81*d* having a first end coupled to the left upper tube support frame 81*c* and a distal second end coupled to the right upper tube support frame 81*c*, … Further, in certain example embodiments, the **left upper tube support frame 81*c*, handle 81*d*, and right upper tube support frame 81*c* can be made from a single unitary piece of material**, such as a single piece of bent, hollow-core metal or plastic tubing. Alternatively, each of the **left upper tube support frame 81*c*, handle 81*d*, and right upper tube**

> **support frame 81*c* can be separate pieces** of the same or different material that are **coupled to one another**.

(EX1007, '305 CIP, 9:1-22.)

> … a handle portion 81*d* having a first end 77*a* coupled to the end 79*a* of the left upper tube support frame 81*c* and a distal second end 77*b* (only the first end 77*a* of the handle portion 81*d* is shown) coupled to the end 79*b* of the right upper tube support frame 81*c* (only the left upper tube support frame is shown), … Further, in certain example embodiments, **the left upper tube support frame 81*c*, handle 81*d*, and right upper tube support frame 81*c* can be made from a single unitary piece of material**, such as a single piece of bent, hollow-core metal or plastic tubing. Alternatively, **each of the left upper tube support frame 81*c*, handle 81*d*, and right upper tube support frame 81*c* can be separate pieces** of the same or different material that are **coupled to one another**.

(EX1008, '543 Patent, 9:1-23.)

214. This new disclosure about the "handle portion" being a single unitary piece with the right/left "upper tube support frames" or "separate pieces" was first disclosed in the 2016 Second Provisional.

> In one example embodiment, the stroller frame 11 can include a pair of front wheel support frames 11a (only the left front wheel support frame is shown), a pair of back wheel support frames 11b (only the left back wheel support frame is shown), a pair of upper tube support frames 11c (only the left upper tube support frame is shown), a handle portion 11d having a first end coupled to the left upper tube support frame 11c and a distal second end coupled to the right upper tube support frame 11c, and foot rest support frame 11f having a first end coupled to the left front wheel support frame 11a (either directly or via the first seat attachment housing 205 discussed below in Figure 2) and a distal second end coupled to the right front wheel support frame 11a (either directly of via the second seat attachment housing 210 discussed below in Figure 2). In certain example embodiments, each front wheel support frame 11a can be fixedly coupled or rotatably coupled to its corresponding upper tube support frame 11c. Further, in certain example embodiments, the left upper tube support frame 11c, handle 11d, and right upper tube support frame 11c can be made from a single unitary piece of material, such as a single piece of bent, hollow-core metal or plastic tubing. Alternatively, each of the left upper tube support frame 11c, handle 11d, and right upper tube support frame 11c can be separate pieces of the same or different material that are coupled to one another.

EX1006, 8

215. The redefined start/stop locations of the "handle portion" also affect how a POSITA would understand the recited claims. For instance, claim 1 of the '682 Patent recites the "first seat" and first/second "housings" being "closer" to either the "handle portion" or the "front end portion." A POSITA would need to look to the specification to determine the location of the "handle portion" to assess these locations. Relying on the post-2016 definition, the location of the "handle portion" would be different given the new meaning and disclosure provided from the 2016 Second Provisional.

216. In addition, Claim 12 (and claims 10-11 which it depends from) recite

the "handle portion comprises a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame." A POSITA evaluating this claim would clearly understand this claim to be the "handle portion" as redefined in the post-2016 '305 CIP which was then further clarified in the '543 Patent.

217. Therefore, the first disclosure in the patent family that provided support for a handle portion coupled to upper tube support frames was in the March 21, 2016 Second Provisional. As such, in my opinion, the earliest priority date to which the '682 Patent claims are entitled is March 21, 2016. Thus, even if the '682 Patent claims are not held to the July 16, 2020 filing date for priority, the earliest priority date would be March 21, 2016.

VIII. Overview of the prior art

A. U.S. Patent No. 8,882,134 ("Rolicki")

1. Status as Prior Art

218. Rolicki was filed March 14, 2013 and claimed priority to provisional application No. 61/749,728 filed January 7, 2013. Rolicki published as U.S. Patent Publication No. 2014/0191483 on July 10, 2014. Rolicki issued on November 11, 2014. (EX1047, Cover, 1:6-9.)

219. As I stated in my "Priority of the '682 Patent" section above, it is my opinion that claims 1-10 and 17-20 should be given a priority date no earlier than

the filing date of the Second Provisional, which is March 21, 2016.

220. Based on a priority date of March 21, 2016, I have been informed by counsel that Rolicki is prior art under at least 35 U.S.C. § 102(a)(1) (post-AIA) or 35 U.S.C. § 102(b) (pre-AIA)[17].

2. Overview of Rolicki

221. Rolicki discloses a stadium-style dual-seat stroller having an upper seat near the handle 122 and a lower seat near the front wheels 110. (EX1047, Rolicki, Fig. 1.) The stroller of Rolicki is symmetrical. (EX1047, Rolicki, 5:40-43, Figs. 2, 3, 18.)

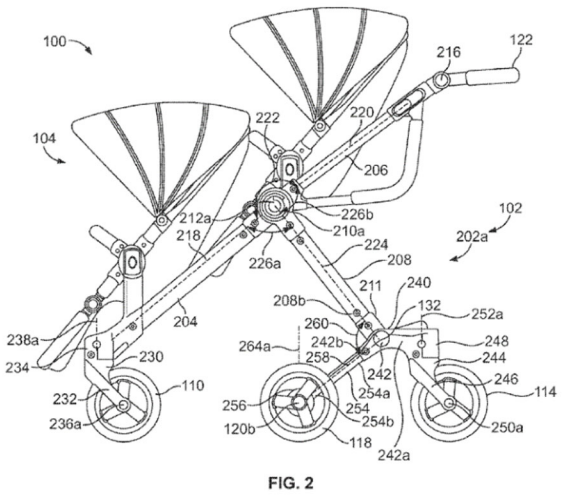


FIG. 2

EX1047, Rolicki, Fig. 2

222. The stroller includes a frame 102 having left and right-side frames

[17] I understand there is a dispute regarding whether or not pre-AIA or post-AIA law applies. I have been informed that this dispute is irrelevant to my analysis.

assemblies 202a, 202b, each having an upper frame support 206 pivotally coupled to a lower frame support 204. (EX1047, Rolicki, 5:37-40, 5:47-50.) The seats 106 are removably coupled to the frame 102 using seat mounts 108. (EX1047, Rolicki, 3:53-58.) The seat mounts 108 may be coupled to the frame directly or coupled to the frame using housings 902. (EX1047, Rolicki, 12:50-52.) The embodiment of Figure 10 shows removable seat mounts 108 that are receivable in pockets 1002 of connector housings 902. This allows the seat mounts 108 to be removed when not in use, such as when only a single seat 106 is attached to the stroller.

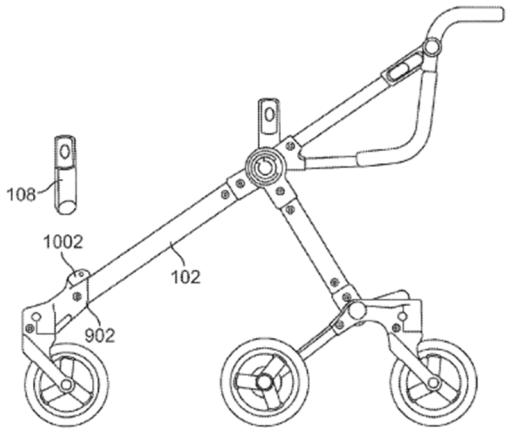


FIG. 10

EX1047, Rolicki, Fig. 10

223. The seats 106 are removably connected to upper ends of the seat mounts 108 by an interface, and the lower ends of the seat mounts 108 are adjustable along the frame 102. (EX1047, Rolicki, 3:51-64.)

B. U.S. Design Patent No. D593,459 ("Liao")

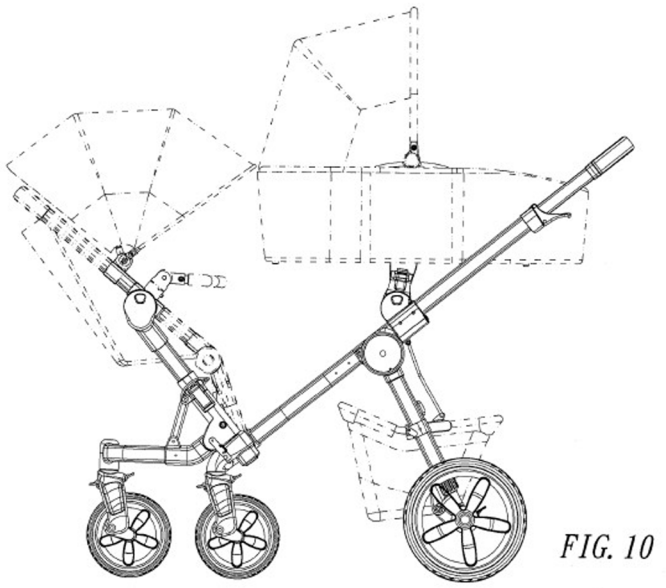
1. Status as Prior Art

224. On September 5, 2008, Unique Product & Design Co. Ltd. filed an application for U.S. Design Patent D593,459 (App. No. 29/324,044), Design application No. 29/324,044 issued as Liao on June 2, 2009. (EX1048, "Liao," Cover.)

225. Counsel has informed me that Liao is prior art under at least 35 U.S.C. § 102(a)(2) (post-AIA) or 35 U.S.C. § 102(e) (pre-AIA) assuming the claims are entitled to the December 4, 2008 priority claim, and is prior art under at least 35 U.S.C. § 102(a)(1) (post-AIA) or 35 U.S.C. § 102(b) (pre-AIA) if not entitled to priority.

2. Overview of Liao

226. Liao discloses a pushchair (*i.e.*, a stroller) having a single configuration and dual configuration. Liao has a main frame structure that supports a first seat and has a detachable front seat attachment that allows the pushchair to have two seats.



EX1048, Liao, Fig. 10

227. The detailed drawings of Liao are a type of wire frame isometric drawings a POSITA would understand are typically obtained from a CAD software design program. These detailed drawings are what a POSITA would typically use and rely upon when analyzing the details for stroller designs. A POSITA would therefore be able to understand and use the drawings provided in Liao for assessing functional features even though there is not an extensive written disclosure.

228. It is further my understanding that during prosecution of the ’682 Patent and related patent applications, the U.S. Patent Office Examiner relied on the design of Liao. It is my understanding the Examiner, like a POSITA, was able to identify functional and operational features based on the detailed drawings of Liao. The U.S. Patent Office Examiner’s analysis further supports my opinion that

a POSITA would be able to understand and use the drawings provided in Liao for assessing functional features.

229. For instance, a POSITA would understand Liao's design has a main frame structure including a frame and four wheels and a detachable front seat attachment that allows the pushchair to have two seats. Liao illustrates connectors (circled in red) that allow for two removable seats. Figure 1 illustrates the stroller without any seats connected. Other figures (like Figure 12) illustrate the various ways and multiple types of seats that could be connected in front-facing and rear-facing configurations.

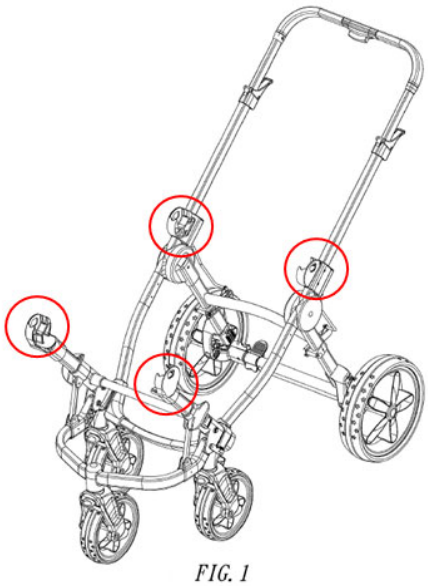


FIG. 1

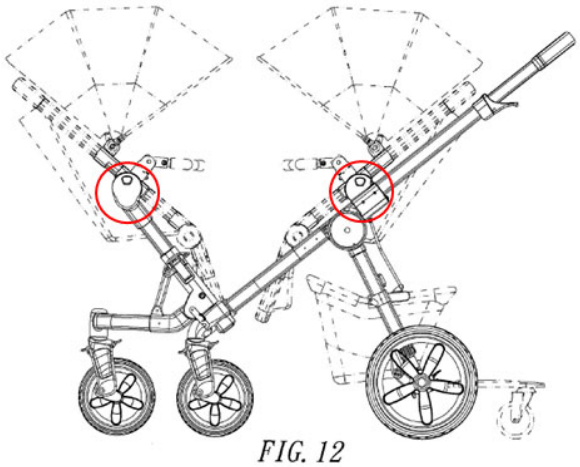
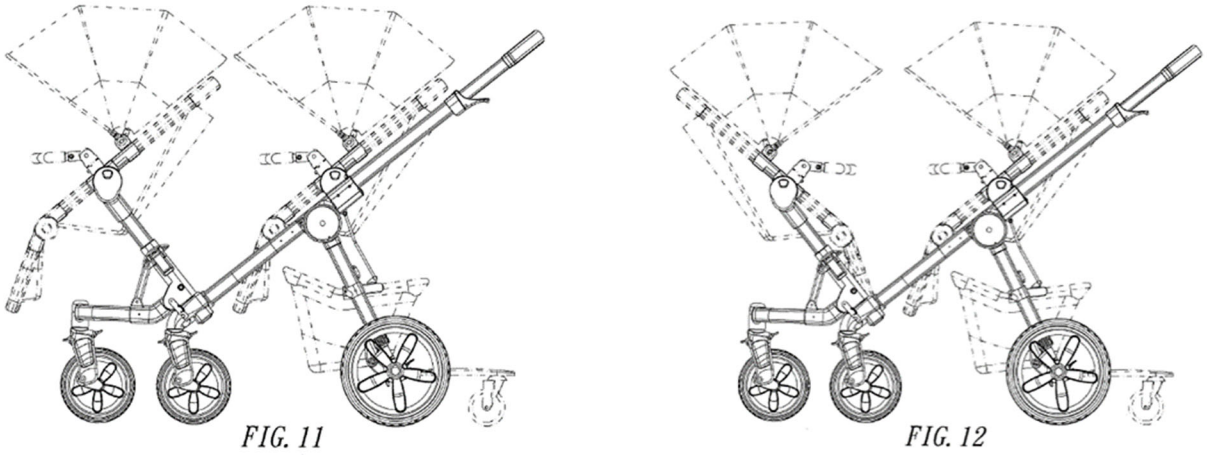


FIG. 12

EX1048, Liao, Fig. 1

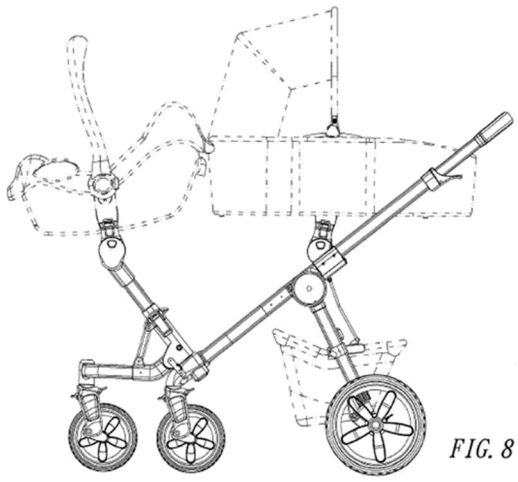
230. For instance, Liao discloses two figures (Figures 11 and 12) depicting the same type of dual seat configuration. A POSITA would understand looking at both

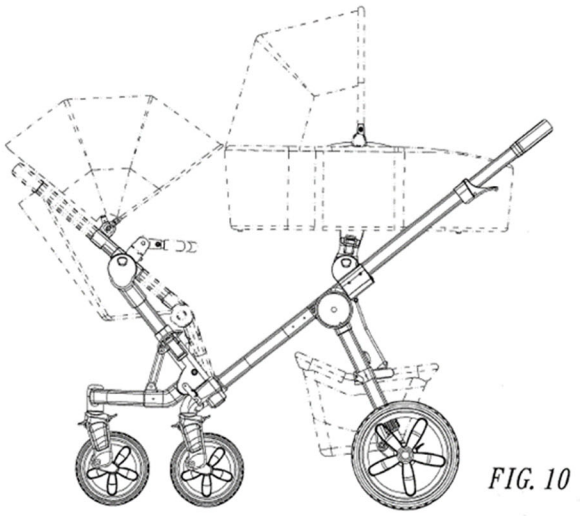
figures that the difference is the front seat is configured either in the forward-facing or and rear-facing configurations.



EX1048, Liao, Figs. 11 and 12

231. In addition, other figures (like Figures 8 and 10) illustrate the stroller being configured with a baby pram or infant carrier. Given the various seat types and orientations, a POSITA would understand Liao's stroller as disclosing connectors that allow for connection to different baby seats that could be used to provide either a single or double seat stroller.


FIG. 8


FIG. 10

EX1048, Liao, Figs. 8 and 10

C. U.S. Patent Application Publication No. 2006/0071451 ("Cheng")

1. Status as Prior Art

232. Cheng was filed on April 28, 2005 and published on April 6, 2006 (EX1049, Cover.) Counsel has informed me that Cheng is prior art under at least 35 U.S.C. § 102(a)(1) (post-AIA) and 35 U.S.C. § 102(b) (pre-AIA) regardless of whether the '568 Patent is given a priority date of 2008 or a later date.

2. Overview of Cheng

233. Cheng discloses a folding baby stroller 10 that has a frame structure 12 with handle supports 24, front wheel supports 20, and rear-wheel supports 30 that are all joined at folding assemblies 22. (EX1049, Cheng, ¶¶0039, 0042, 0045.) The folding assemblies 22 allow the stroller frame 12 to fold for storage and

transport. (EX1049, Cheng, ¶¶0049-0050.)

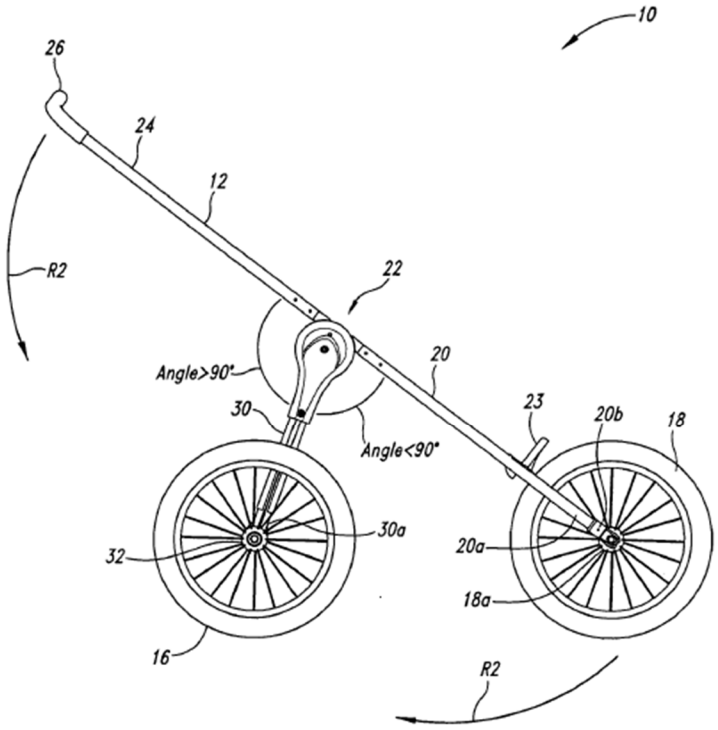


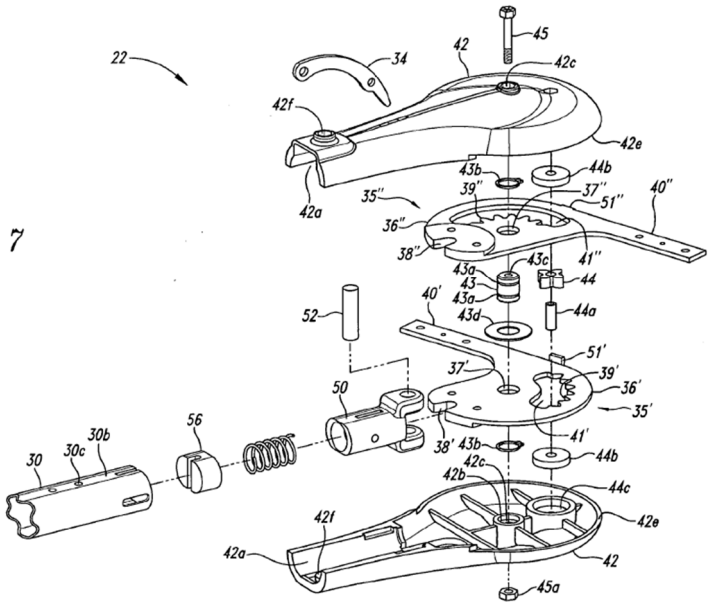
Fig. 4

EX1049, Cheng, Fig. 4

234. The folding assemblies 22 are circular- or hub- style folding mechanisms in which circular components rotate relative to each other within a circular housing or hub to allow pivoting of the upper and lower frame members. Each folding assembly 22 includes a first rotatable member 35' and a second rotatable member 35'' disposed in the housing 42. (EX1049, Cheng, ¶0050.) The first member 35' has a disk 36' and an arm 40' coupled to the front wheel support 20. The second member 35'' has a disk 36'' and an arm 40'' coupled to the handle

support 24. (EX1049, Cheng, ¶¶0051, 0069.) Each of the disks defines an internal sector gear 39' and 39'' (EX1049, Cheng, ¶0051.) A pinion gear 44 rotatably couples the first and second members 35', 35''. The pinion gear 44 is sized to be received in the elongate apertures 41', 41'' and meshes with internal gears 39', 39'' so that rotation of one of the members 35 is input to the other member 35 thus synchronizing movement of the front wheel support 20 and the handle support 24 during folding of the stroller 10. (EX1049, Cheng, ¶¶0056-0057.)

Fig. 7



EX1049, Cheng, Fig. 7

D. U.S. Patent No. 8,672,341 (Offord '341)

1. Status as Prior Art

235. Offord '341 was filed September 24, 2009. Offord '341 was published December 1, 2011. (EX1051, Offord '341, Cover.)

236. I understand Offord ’341 claims priority to a British patent with a filing date of October 10, 2008, which predates the earliest claimed priority date of December 4, 2008. Thus, I am informed that Offord ’341 is prior art under 35 U.S.C. § 102(a)(2) (post-AIA) assuming the claims are entitled to the December 4, 2008 priority claim, and is prior art under at least 35 U.S.C. § 102(a)(1) (post-AIA) or 35 U.S.C. § 102(b) (pre-AIA) if not entitled to priority.

2. Overview of Offord ’341

237. Offord ’341 discloses a vehicle comprising frame assembly 4, ground contacting wheels 6 attached to the frame assembly 4, a handle 8, seats 10 releasably mounted to mounting regions 12, and a pair of mounting devices connected to the frame of the seat. (EX1051, Offord ’341, 5:45-55.) The seats/child carrying unit can alternatively be an infant car seat or a carry-cot. (EX1051, Offord ’341, 5:55-57.)

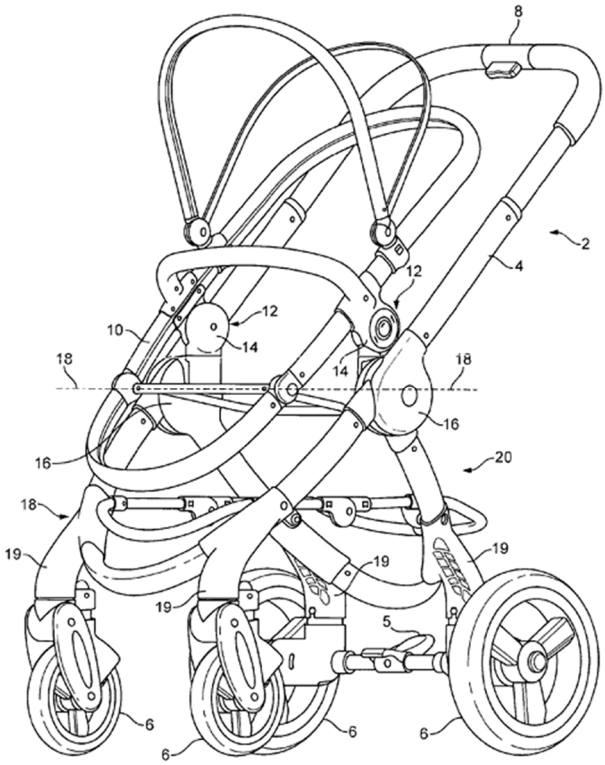


FIG. 1

EX1051, Offord ’341, Fig. 1

238. The stroller also includes hinge devices 16 on each side of the frame assembly 4. (EX1051, Offord ’341, 5:60-61.) “The hinge devices comprise first and second lateral locking hub devices 22 and a third central locking hub device 24.” (EX1051, Offord ’341, 6:15-17.) The “portion of the frame assembly 4 below the hinge devices comprises a forward-projecting frame sub-portion 18 and a rearward-projecting frame [assembly] 20.” (EX1051, Offord ’341, 6:3-5.) The inner lateral locking hub device 22 is housed within an inner housing 30 which connects to the rearward-projecting frame sub-portion 20 and outer lateral locking

hub device 22 being housed in an outer housing 32 which connects to the forward-projecting frame sub-portion 18. (EX1051, Offord ’341, 6:23-29.)

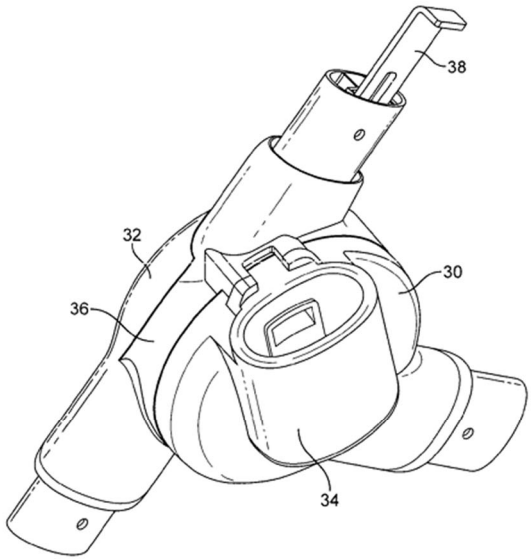


FIG. 4

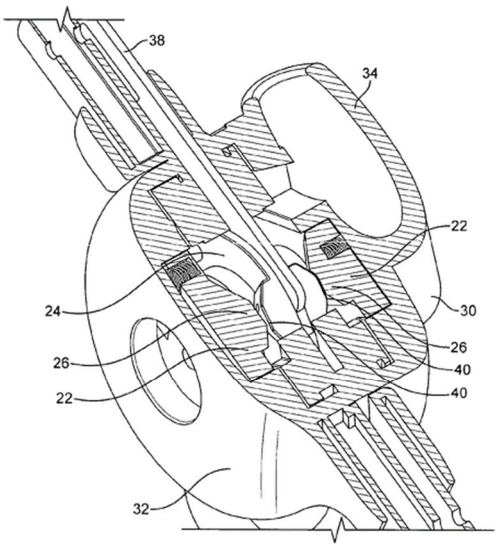


FIG. 5

EX1051, Offord ’341, Figs. 4-5

239. Offord ’341 discloses folding of the stroller by rotation of the inner and outer housings 30 and 32, the central housing 36 and the central locking hub device 24. (EX1051, Offord ’341, 6:30-7:12.)

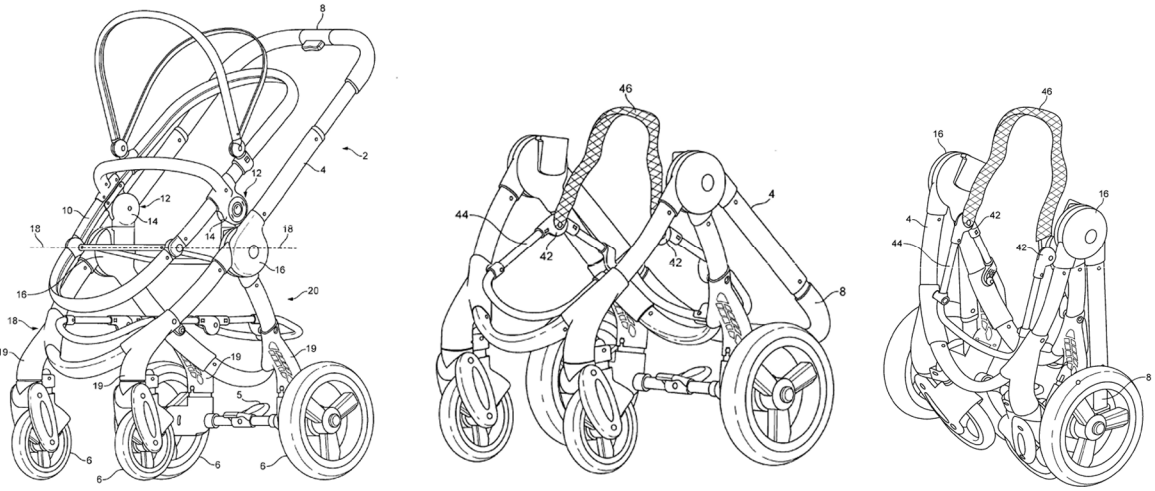


FIG. 1 FIG. 7 FIG. 8

EX1051, Offord ’341, Figs. 1, 7-8

240. The stroller of Offord ’341 can be modified to include a sub-frame assembly releasably attached to the frame. (EX1051, Offord ’341, 2:47-50.) This subframe comprises two pairs of interface portions allowing for a first and second child carrying units to be mounted. (EX1051, Offord ’341, 2:47-50.)

E. WO 2008/040797 (Offord ’797)

1. Status as Prior Art

241. Offord ’797 was filed October 5, 2007 and claimed priority to a British application filed October 6, 2006. (EX1054, Offord ’797, Cover.) Offord ’797 published as WO 2008/040797 A1 on April 10, 2008. (EX1054, Offord ’797, Cover.) I am informed that Offord ’797 is prior art under 35 U.S.C. § 102(a)(1) (post-AIA) or 35 U.S.C. § 102(a) assuming the claims are entitled to the December 4, 2008 priority claim, and is prior art under at least 35 U.S.C. § 102(a)(1) (post-

AIA) or 35 U.S.C. § 102(b) (pre-AIA) if not entitled to priority.

2. Overview of Offord ’797

242. Offord ’797 discloses a vehicle frame assembly including an interface portion having mounting regions for child carrying units one behind the other in an echelon formation. (EX1054, Offord ’797, 1:5-11.) The interface portion is a subframe that is detachable connected to the frame assembly. (EX1054, Offord ’797, 1:11-13.) The frame assembly has wheels to be used as a perambulator. (EX1054, Offord ’797, 1:30-32.) A U-shaped telescopic handle is also included on the frame assembly. (EX1054, Offord ’797, 2:34-3:2.)

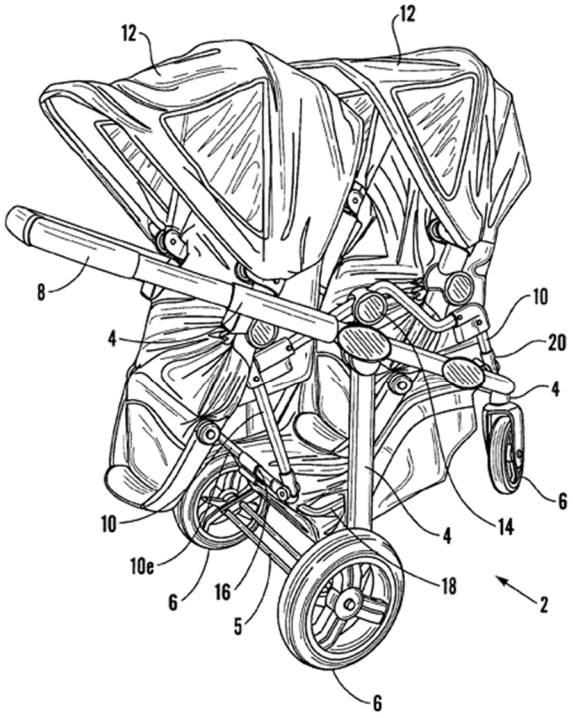


Fig. 1

EX1054, Offord ’797, Fig. 1

243. The interface portion 10 is detachably connected to the frame by self-locking insert in socket connectors 14 on the lateral sides of the interface portion 10. (EX1054, Offord ’797, 3:8-11.) Each lateral bar includes a double-curve section. (EX1054, Offord ’797, 3:22-23.) The double curve creates a higher and lower vertical plane. (EX1054, Offord ’797, 3:27-30.) The higher and lower sections have a pair of sockets for inserting an adapter. (EX1054, Offord, ’797 3:31-4:4.) The adapter allows for seats to be connected to the vehicle with one seat higher than the other. (EX1054, Offord ’797, 5:3-7.) The subframe can be rotated 180 degrees allowing for the higher seat to be in the rear with the lower seat in the front or the higher seat in the front and the lower seat in the rear. (EX1054, Offord ’797, 4:24-30.)

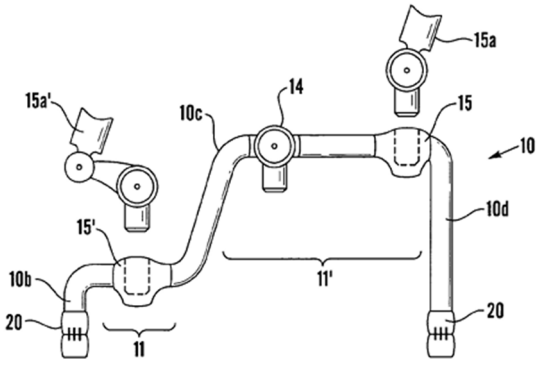


Fig.5

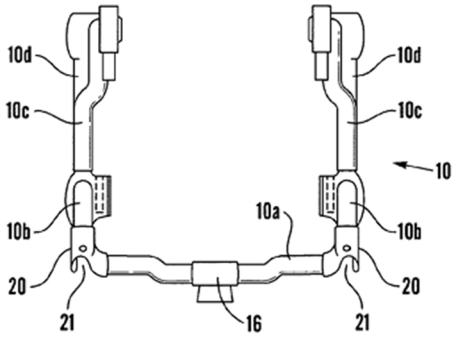


Fig.6

EX1054, Offord ’797, Figs. 5-6

244. – 264. <INTENTIONALLY LEFT BLANK>

IX. Grounds for Challenge

A. Ground 1 Claims 1–16 are obvious over U.S. Patent No. 8,882,134 ("Rolicki")

… ***[1.0] A stroller, comprising:***

265. Rolicki discloses a stroller having a "frame 102" with "seat mounts 108" that allow "infant seats 106" to be removably coupled.

> The present disclosure relates generally to child care equipment and, more particularly, to maneuverable strollers.

(EX1047, Rolicki, 1:13-14; see also 3:49-50, 21:63.)

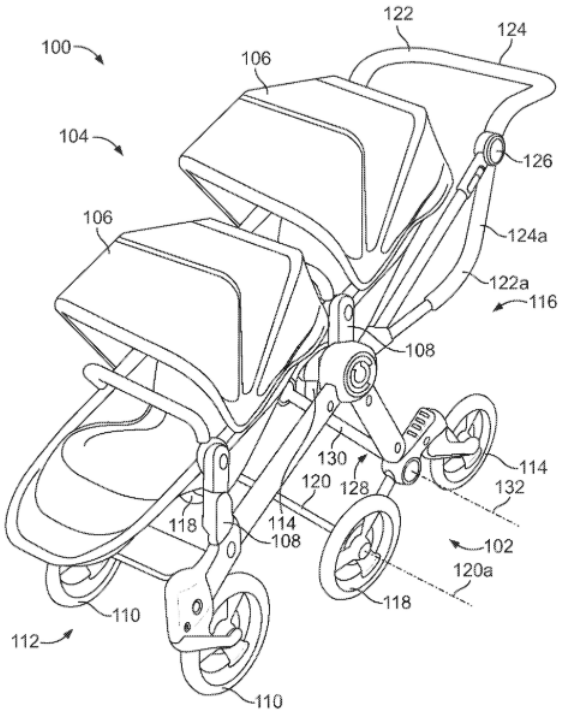


FIG. 1

EX1047, Rolicki, Fig. 1

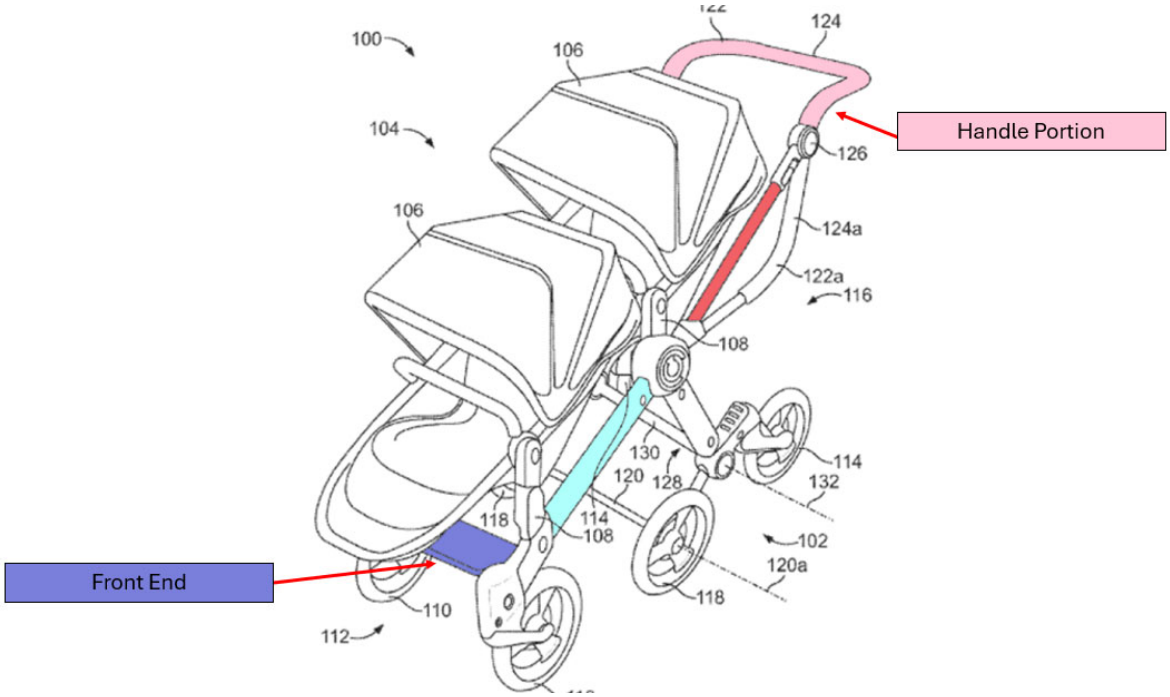
> **FIG. 1 is a perspective view of an example stroller 100** constructed in accordance with the teachings disclosed herein. The example stroller 100 of FIG. 1 includes a frame 102 defining a seating area 104 to accommodate or support one or more child and/or infant seats 106. To support the infant seats 106, the frame 102 of the illustrated example includes one or more infant seats mounts 108. More specifically, the infant seats 106 removably couple to the seat mounts 108 via an interface (e.g., a latch or connector) provided by the seats 106 and the seat mounts 108. To remove the infant seats 106 from the seat mounts 108, a connector defined by the interface is released via a release (e.g., a spring-loaded push button). Additionally or alternatively, the seat mounts 108 may be adjusted along the frame 102 to adjust a position of the infant seats 106 relative to the frame 102 and/or each other.

(EX1047, Rolicki, 3:49–64.)

266. Rolicki discloses limitation [1.0].

… ***[1.1] a stroller frame comprising a handle portion and a front end portion;***

267. Rolicki discloses a "stroller 100" that includes "a frame 102." (EX1047, Rolicki, 3:51-52.) The stroller frame 102 has left and right side frame supports 202a, 202b. Each side frame support 202a, 202b has an upper frame support 206 (red) and a lower frame support 204 (light blue). (EX1047, Rolicki, 5:47-55.)



EX1047, Rolicki, Fig. 1 (Annotated)

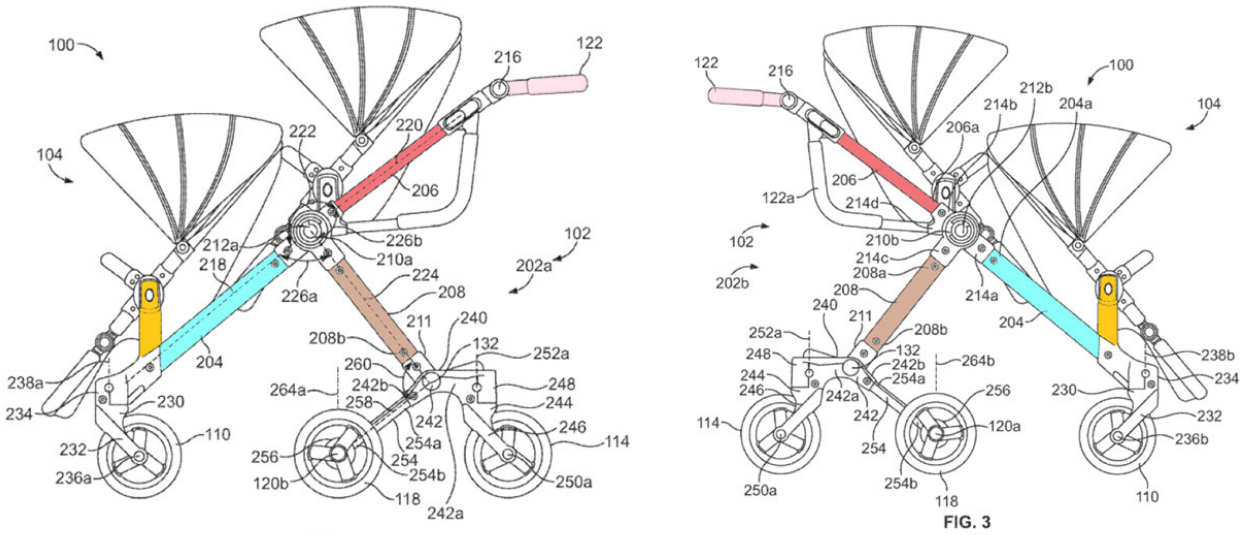


FIG. 2

FIG. 3

EX1047, Rolicki, Figs. 2-3 (Annotated)

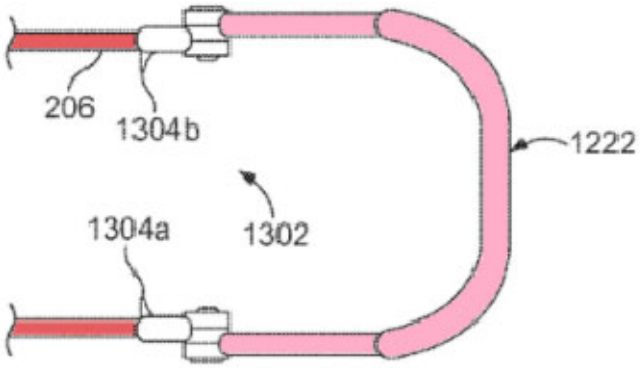


FIG. 13

EX1047, Rolicki, Fig. 13 (Annotated)

268. Rolicki also states the frame 102 includes a "handle 122 [that] is coupled to the frame 102 via a handle articulation hub or joint 126, which enables adjustment of the handle 122 relative to the frame[.]" (EX1047, Rolicki, 5:5-18.) In Figure 13, Rolicki illustrates the "handle 1222 coupled to the upper frame support 206[.]" (EX1047, Rolicki, 13:60–61.) As I have shaded in red, the upper frame support is the part of the frame which extends toward the rear end of the stroller.

269. Rolicki therefore teaches a "handle portion," as I have highlighted in pink,(pink) that would be understood by a POSITA as being the "portion of the frame coupled to the upper ends of the left and right upper tube support frame." A POSITA would understand the "handle portion" could include the "joint 126"/"release 1304" or any mechanism which couples the handle to the upper frame support. Also, if "handle portion" is found to have a priority date before

2016, a POSITA would understand Rolicki's "handle portion" could be understood as including the entire upper frame support 206 (red), articulation joint 126/release 1304 (or any other coupling mechanism), and handle 122 (pink).

270. Rolicki also states the frame "is supported by one or more front wheels 110 at a ***front end 112***[.]" (EX1047, Rolicki, 3:65-66). I note the term "front end portion" is not found within the '682 Patent. This would be understood as being the recited "front end portion." But a POSITA would understand this term to be any portion of the frame located near the "front end." Here, Rolicki identifies a structure of the frame that is the "front end." But a POSITA would understand other portions of the frame (*e.g.*, "upper frame support 206" or "front wheel housing 230") could also alone or in combination be considered the recited "front end portion."

271. Rolicki discloses or renders obvious limitation [1.1].

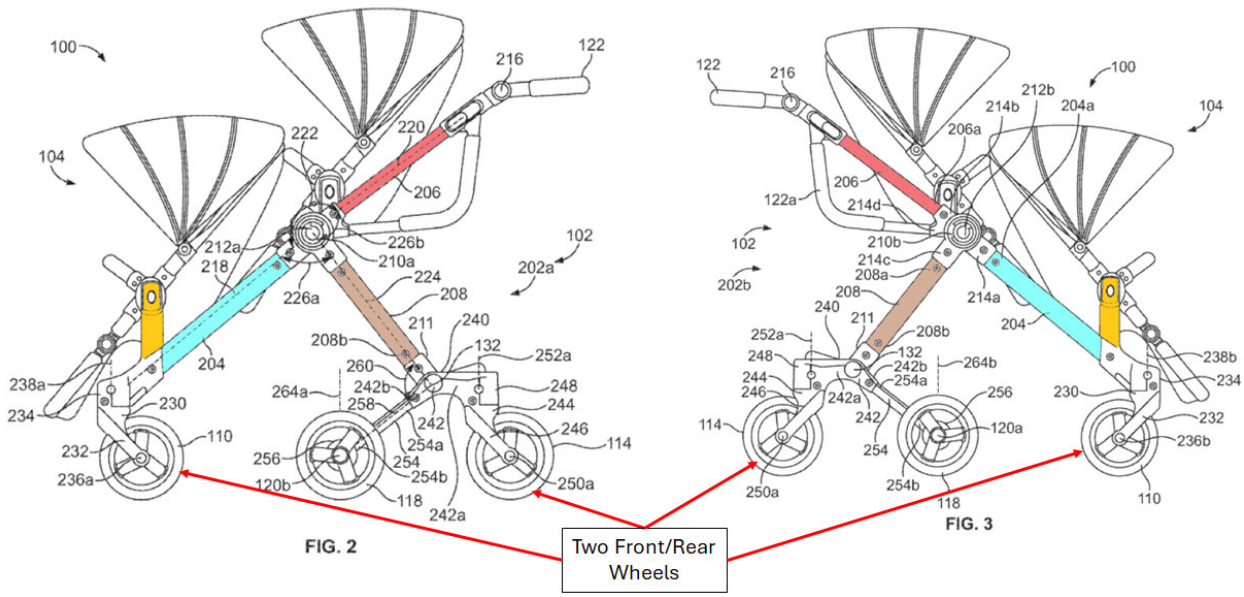
… ***[1.2] a plurality of wheels comprising a plurality of back wheels;***

272. Rolicki discloses "one or more front wheels 110" and "one or more back wheels 114[.]" (EX1047, Rolicki, 3:65-4:1.)

> The frame 102 of the illustrated example is supported by ***one or more front wheels 110*** at a front end 112 of the frame 102 and ***one or more rear wheels 114*** at a rear end 116 of the frame 102.

(EX1047, Rolicki, 3:65-4:1; see also 3:65-4:14.)

273. Two front and two rear wheels (as shown in Rolicki's figures) would be a "plurality." Thus, "and one or more rear wheels 114" is a "plurality." Moreover, the illustrated embodiments show a pair of back wheels. Therefore, Rolicki discloses the claimed "a plurality of wheels comprising a plurality of back wheels."



EX1047, Rolicki, Figs. 2-3 (Annotated)

274. Rolicki discloses limitations [1.2].

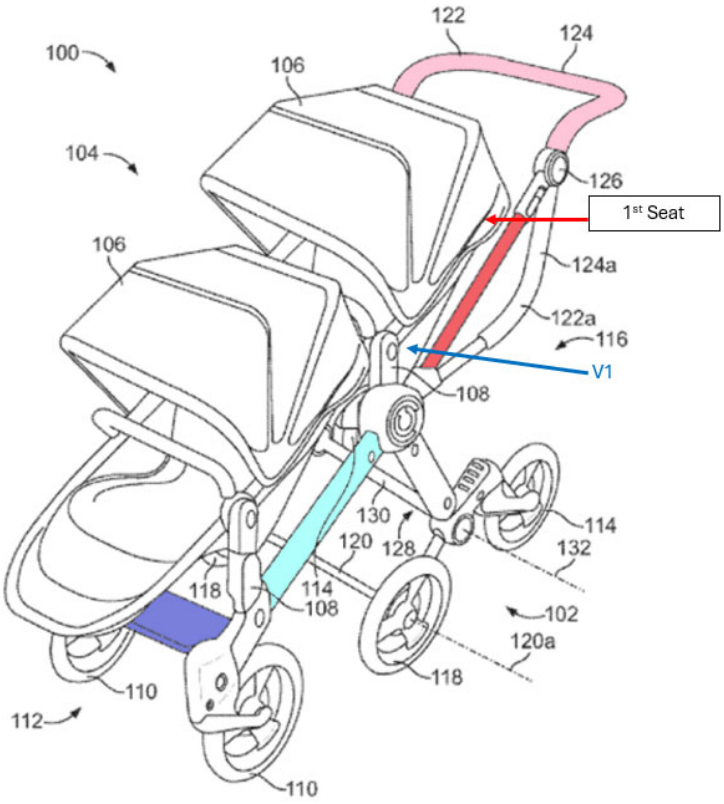
… ***[1.3] a first seat coupled to the stroller frame at a first vertical position of the stroller frame, wherein the first seat is disposed closer to the handle portion than the front end portion of the stroller frame;***

275. Rolicki illustrates a pair of seats 106 arranged stadium-style with an upper seat and a lower seat. (See *e.g.*, EX1047, Rolicki, Figure 2.) As I have

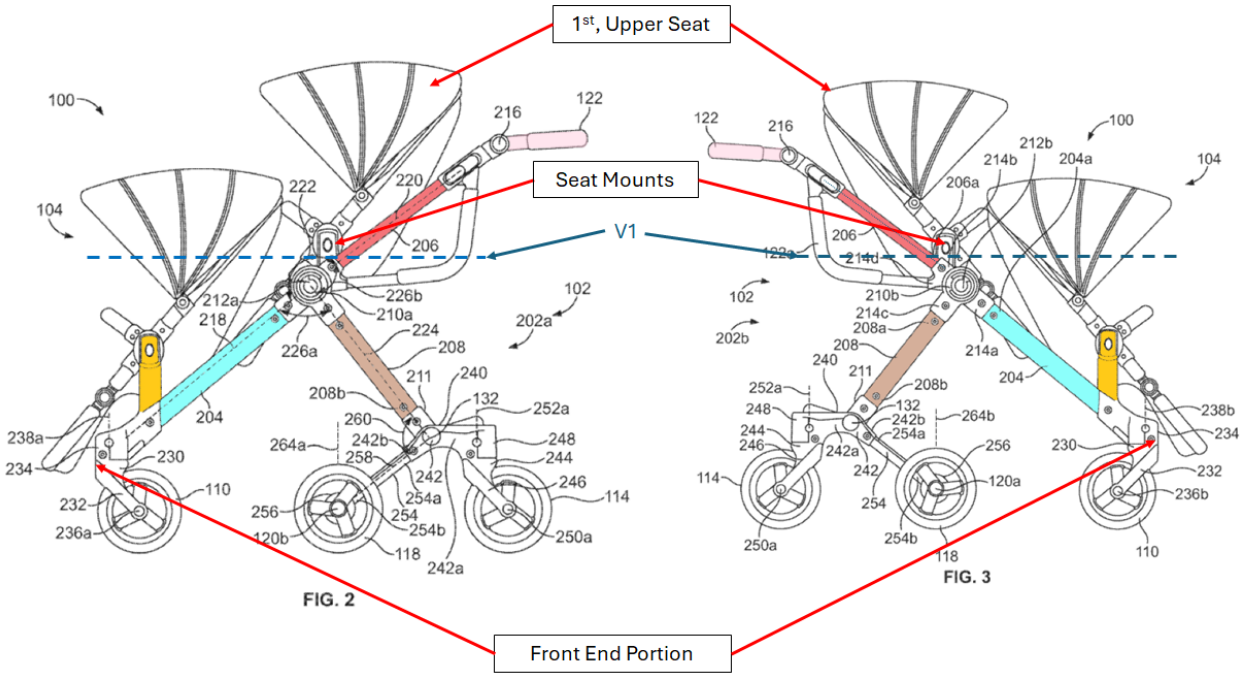
annotated below, the upper and lower seats 106 are connected to the left and right sides of the stroller frame 102 via four seat mounts 108. (EX1047, Rolicki, 3:51-55; see also 12:46-67, 13:1-9.) The upper seat is coupled to the two upper mounts 108 located on the upper frame supports 206 (red). The lower seat 106 is coupled to the lower frame supports 204 (blue). The seat mounts 108 allow the seats 106 to be removably connected to the stroller 100.

> FIG. 1 is a perspective view of an example stroller 100 constructed in accordance with the teachings disclosed herein. The example stroller 100 of FIG. 1 includes a frame 102 defining a seating area 104 to accommodate or support one or more child and/or infant seats 106. To support the infant seats 106, the frame 102 of the illustrated example includes one or more **infant seats mounts 108**. More specifically, the infant **seats 106 removably couple to the seat mounts 108 via an interface** (e.g., a latch or connector) provided by the seats 106 and the seat mounts 108. To remove the infant seats 106 from the seat mounts 108, a connector defined by the interface is released via a release (e.g., a spring-loaded push button). Additionally or alternatively, the seat mounts 108 may be adjusted along the frame 102 to adjust a position of the infant seats 106 relative to the frame 102 and/or each other.

(EX1047, Rolicki, 3:49-64.)



EX1047, Rolicki, Fig. 1 (Annotated)



EX1047, Rolicki, Figs. 2-3 (Annotated)

276. I have identified the "first vertical position" as being the location where the first seat is coupled to the "seat mounts 108" as this is where the first seat is coupled to the stroller frame.

277. As I have also annotated, the first (upper) seat is visibly located closer to the handle portion (pink) than the front end portion (dark blue) of the stroller frame. A POSITA would understand the majority of the first seat (including the area where the infant's back and butt would be positioned) is located closer to the handle portion than the front end portion.

278. A POSITA would have therefore understood based on the disclosure and drawings that Rolicki teaches "a first seat coupled to the stroller frame at a first vertical position [(V1)] of the stroller frame [(red)], wherein the first seat is disposed closer to the handle portion [(pink)] than the front end portion [(dark blue)] of the stroller frame.

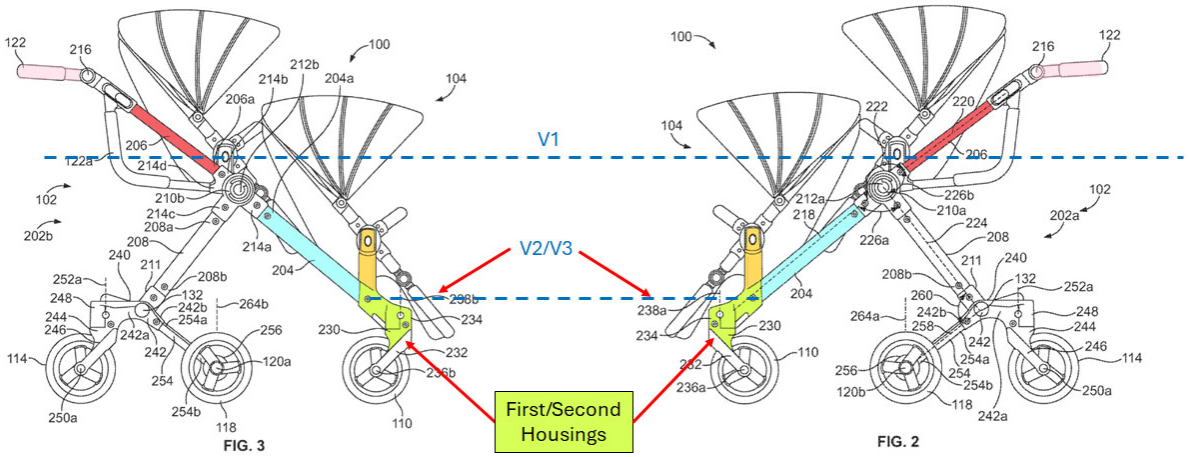
279. Rolicki discloses or renders obvious limitation [1.3].

> … ***[1.4] a first seat attachment housing coupled to the stroller frame at a second vertical position of the stroller frame that is below the first vertical position, wherein a first front wheel and a second front wheel extend from the front end of the stroller;***
>
> … ***[1.5] a second seat attachment housing coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position, wherein the third vertical position is closer to the front end portion than the handle portion;***

280. Rolicki discloses first/second "front wheel housing[s] 230" located at the front end of the stroller. Rolicki teaches the "housing[s] 230" are coupled to the lower end of the "lower frame support 204" (light blue). The "front wheel housing" is part of Rolicki's stroller frame.

> Referring to FIGS. 2 and 3, to mount or attach the front wheels 110 of the illustrated example to respective ones of the side frame assemblies 202*a*, 202*b*, each of the front wheels 110 of the illustrated example includes a ***front wheel housing 230***. For example, the ***front wheel housing 230*** may be coupled or attached to an end of the lower frame support 204. Each front wheel housing 230 of the illustrated example includes a fork or wheel support 232 rotatably mounted to a connector 234.

(EX1047, Rolicki, 7:4-12; see also 7:4-24.)

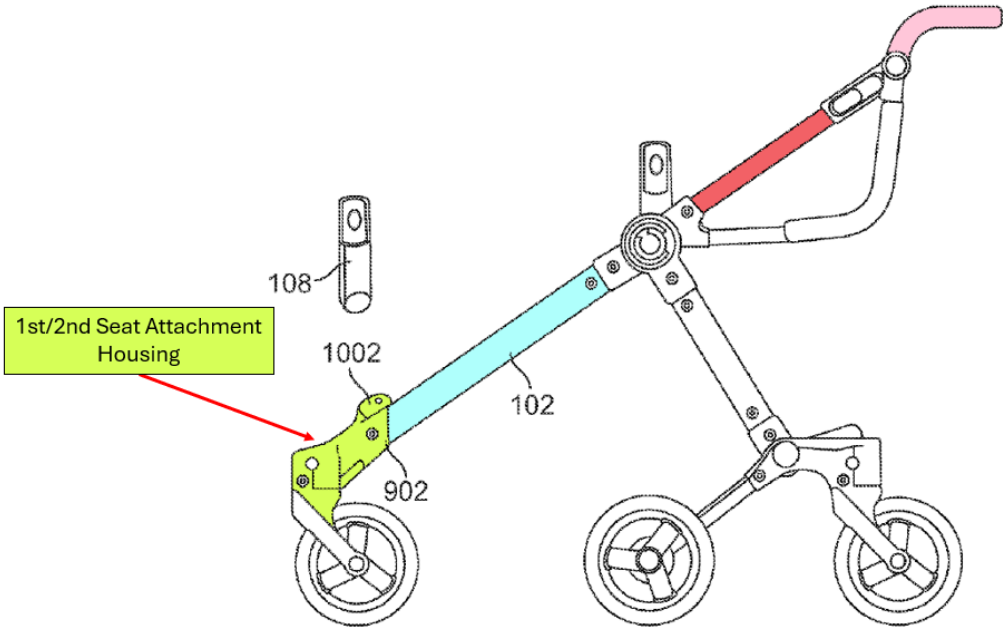


EX1047, Rolicki, Figs. 2-3 (Annotated)

281. Rolicki discloses three different embodiments for the housings and seat mounts (gold). Rolicki discloses the seat mounts 108 may be coupled by bolts to a front wheel housing 230 (Figures 1, 2, and 3), pivotably coupled (Figure 9B) to the stroller frame or the "housings" (labeled "902" in Figures 9-10), or removably coupled to the stroller frame or the "housings" (Figure 10)

> In some examples, the **seat mounts 108 may be removed relative to the frame 102** prior to or after the stroller 100 is in the folded position 800. For example, FIG. 10 illustrates the example seat mounts 108 being **removed from an opening or pocket 1002 of the connector 902 or the frame 202**. To remove the seat mounts 108 from the connector 902 and/or the frame 102, a lock or latch mechanism securing the seat mounts 108 to the connector 902 and/or the frame 102 is released and the seat mount 108 is removed from the opening 1002.

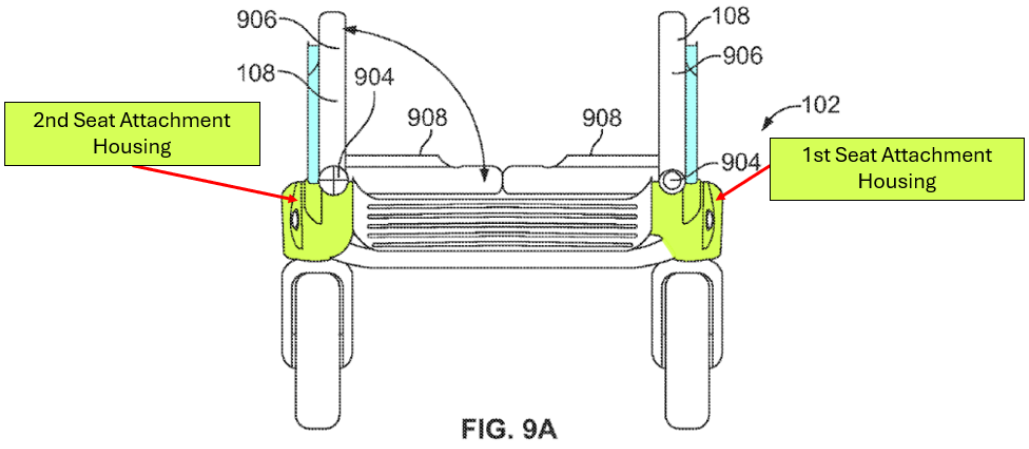
(EX1047, Rolicki, 13:1-9.)



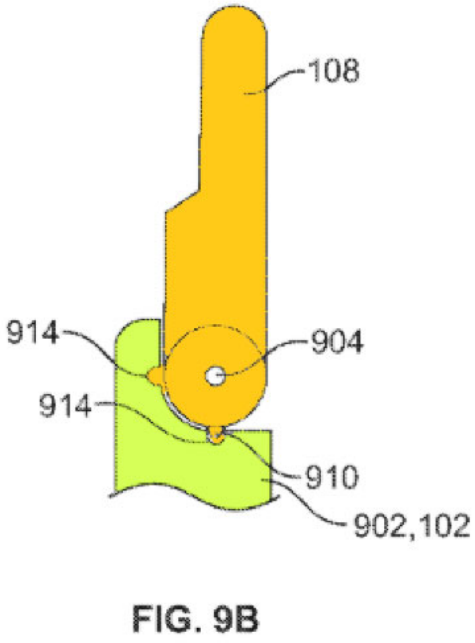
EX1047, Rolicki, Fig. 10 (Annotated)

In some examples, the seat mounts 108 may be folded relative to the frame 102 prior to or after the stroller 100 is in the folded position 800. For example, **FIGS. 9A and 9B illustrate example seat mounts 108 that fold relative to the frame 102. The seat mounts 108 of the illustrated example are pivotally coupled or attached to a connector or housing 902 and/or the frame 202 of the stroller 1000**. Each of the seat mounts 108 of the illustrated example pivots relative to the connector 902 or frame 202 about a pivot point 904 between a first upright or in use position 906 and a second or lowered folded position 908. **In the illustrated example of FIG. 9B, in the first position 906, a latch 910 (e.g., a protruding member or tab) of the seat mount 108 engages an opening or recess 912 in the frame 202 to lock or restrict rotation of the seat mount 108 relative to the frame 202 and/or the connector 902 about the pivot point 904.**

(EX1047, Rolicki, 12:46-67.)



EX1047, Rolicki, Fig. 9A (Annotated)



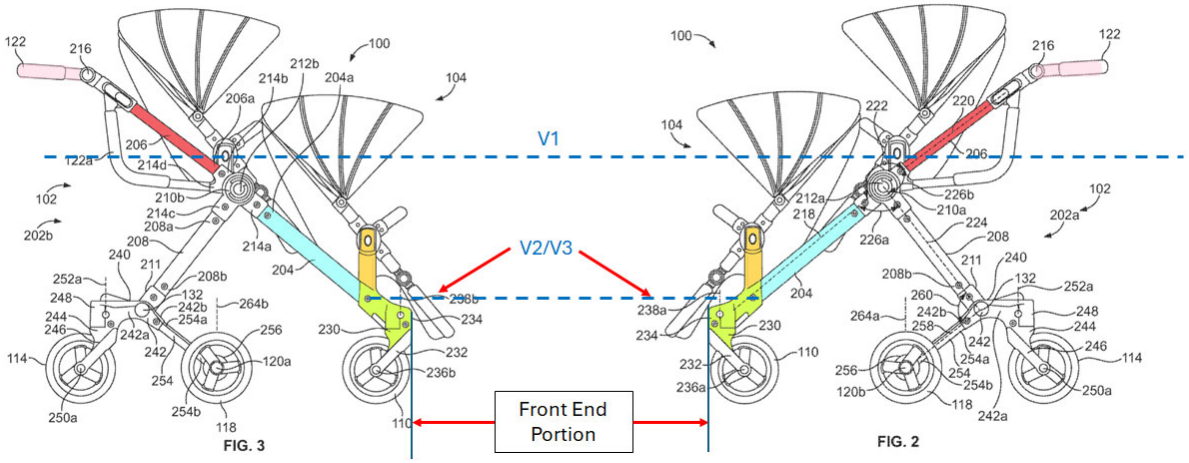
EX1047, Rolicki, Fig. 9B (Annotated)

282. Again, the lower (second) seat can then be removably coupled from the lower seat mounts (gold). (EX1047, Rolicki, 3:49-64.) A POSITA would have understood each of these housings as being a "seat attachment housing" (green

above), as it is used to attach the seat mounts 108 to the frame which in turn is used for removably coupling the lower seat.

283. As shown, the first/second housings are "coupled or attached to an end of the lower frame support 204." (EX0147, Rolicki, 7:4-9.) It is visible this coupling is done by a fastening mechanism such as a bolt or rivet.

284. Therefore, a POSITA would have understood that the housings (green) would be coupled to the frame at a second/third vertical position (V2/V3). The location is visibly where there is a bolt or fastening mechanism that is coupling the housings to the stroller frame (light blue). Rolicki therefore discloses first/second "housings" coupled to the "stroller frame" at second/third "vertical positions."

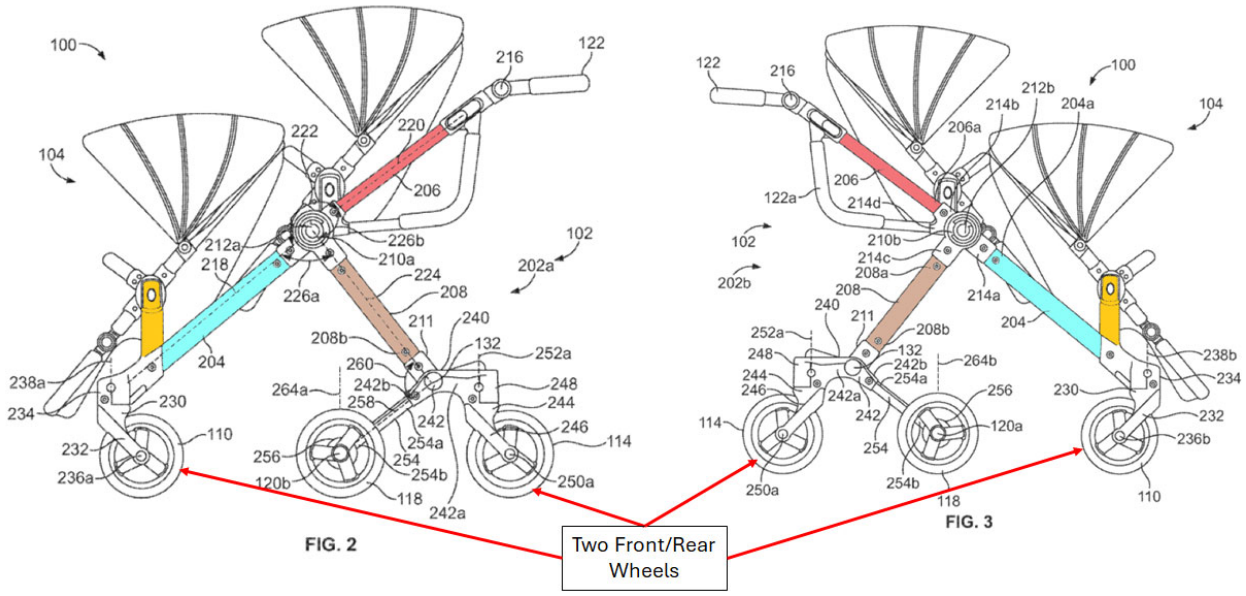


EX1047, Rolicki, Figs. 2-3 (Annotated)

285. As shown above, the second/third vertical positions (V2/V3) are visibly below the first vertical position (V1). Both the second/third vertical

positions (V2/V3) are closer to the front end portion than the "handle portion" (pink).

286. Additionally, the stroller 100 includes a pair of front wheels 110. (EX1047, Rolicki, 3:65-67.) The first/second front wheels are disclosed as being coupled to the housings. (EX1047, Rolicki, 7:4-24.) A POSITA would understand and see the first/second front wheels extending from the front end 112 of the stroller frame 102. (EX1047, Rolicki, Fig. 1.) Indeed, the wheels extend downwardly from the front end 112. (EX1047, Rolicki, Fig. 1.)



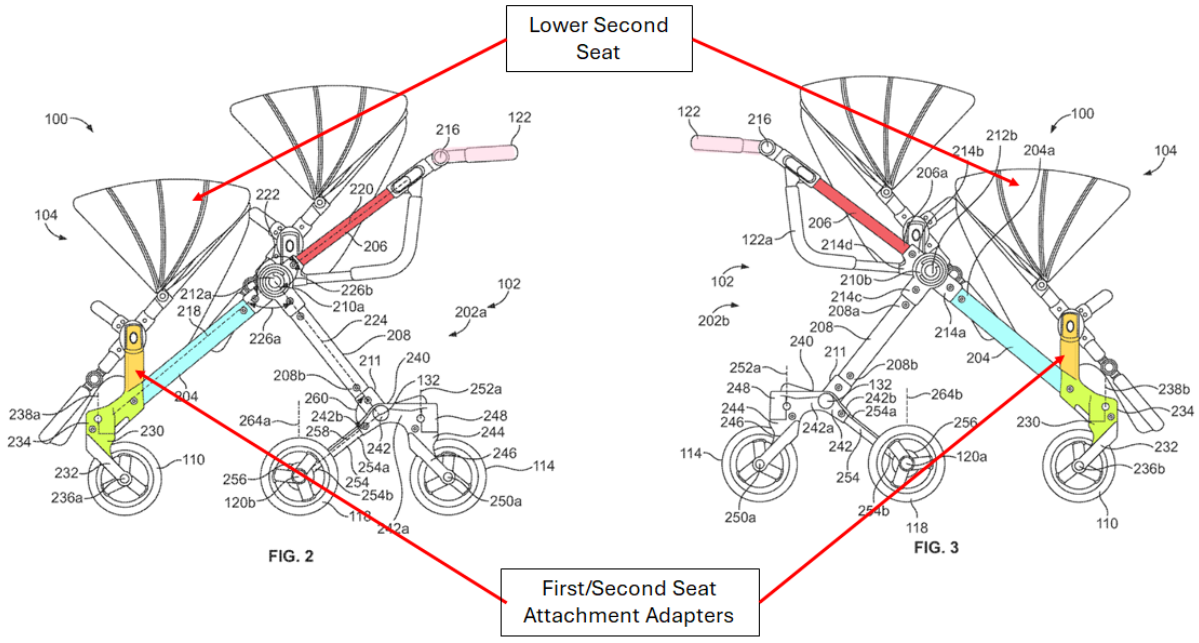
EX1047, Rolicki, Figs. 2-3 (Annotated)

287. Therefore, Rolicki's discloses or render obvious limitations [1.4]–[1.5].

… ***[1.6] a first seat attachment adapter spaced from and coupled to the first seat attachment housing by a first attachment frame member; and***

… ***[1.7] a second seat attachment adapter spaced from and coupled to the second seat attachment housing by a second attachment frame member;***

288. As I discussed above in claim limitations [1.4]–[1.5], the lower "second" seat is removably coupled to the first/second "seat mounts 108." (EX1047, Rolicki, 3:51-55.)



EX1047, Rolicki, Figs. 2-3 (Annotated)

289. Rolicki discloses seat mounts 108 are fixedly coupled (Figures 1–3), removably coupled (Figure 10), or pivotally coupled (Figure 9B) to the stroller frame 102 by the housings 902. (EX1047, Rolicki, 3:51-55, 12:46-56, 13:1-9.)

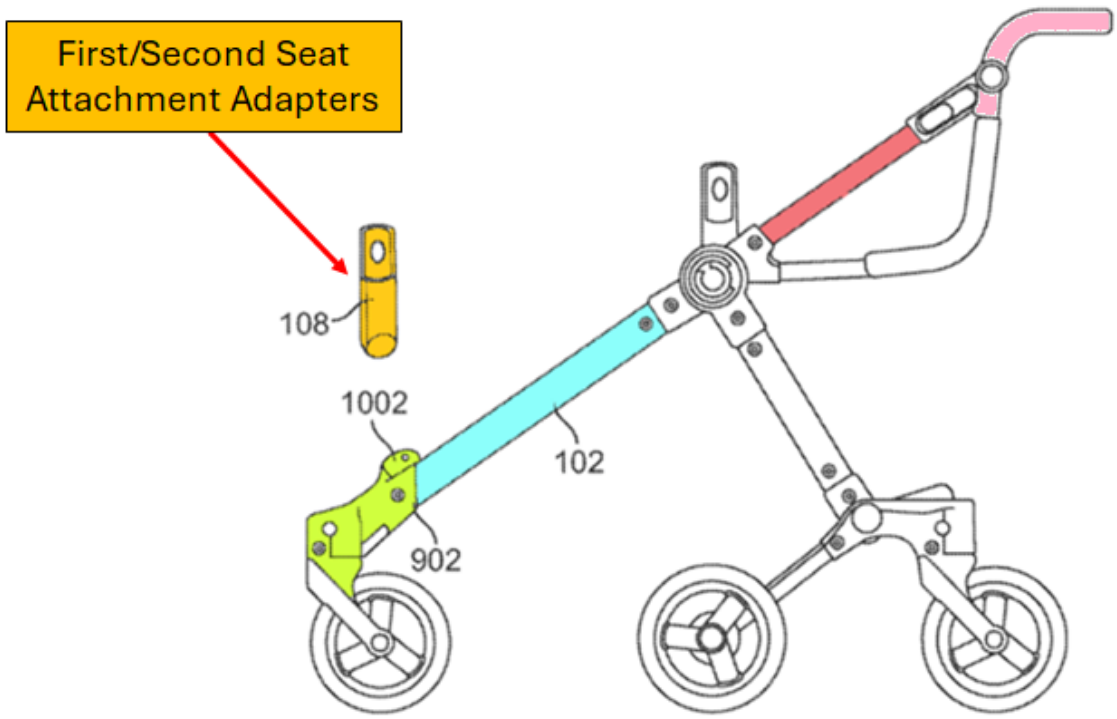


FIG. 10

EX1047, Rolicki, Fig. 10 (Annotated)

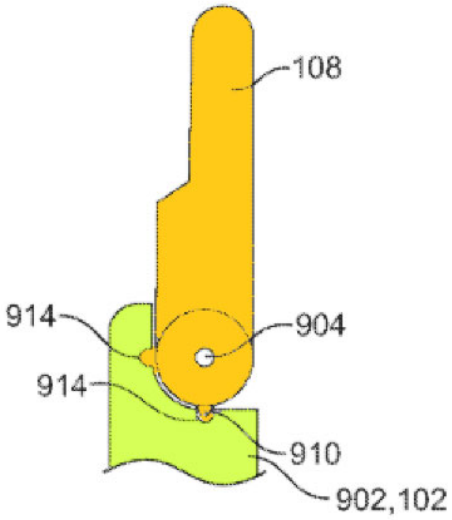
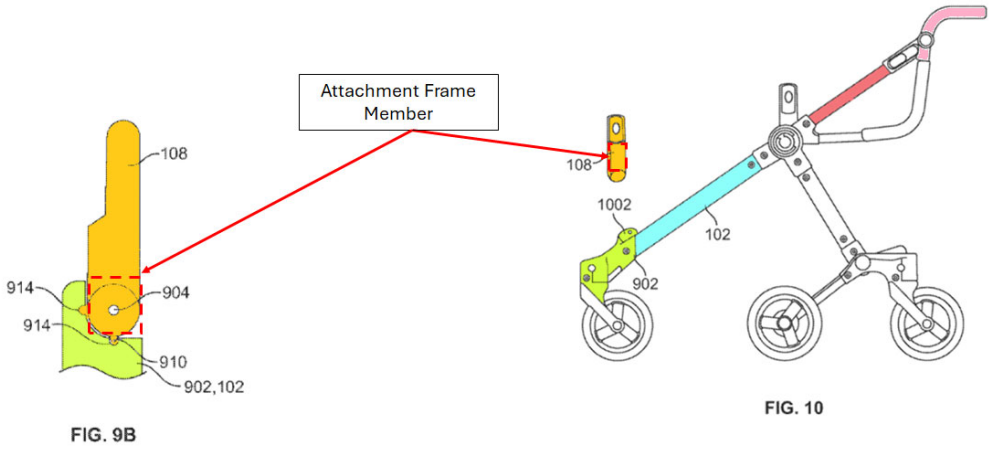


FIG. 9B

EX1047, Rolicki, Fig. 9B (Annotated)

290. In each case, a POSITA would understand the adapters are "spaced from and coupled to the … housing[s]." For instance, Figure 10 discloses the seat mount is inserted into an "opening or pocket 1002" of the housing. (EX1047, Rolicki, 13:1-9.) A POSITA would necessarily understand there would be some spacing within the opening/pocket of the housing to allow the adapter to be inserted. Without the spacing the adapter could not be inserted. The same is true with the rotatable adapter of Figure 9B. As shown, there is some spacing between the components to allow the adapter to be rotatable. Without the spacing, the adapter could not rotate. Lastly, the same would be true with the fixed connection. Without some spacing in the housing, the adapter could not be inserted before being fixedly connected.

291. Lastly, a POSITA would understand a portion of the adapter would be the first/second attachment frame member. For instance, I highlight a section of the removable adapter (Figure 10) and rotatable adapter (Figure 9B) below which would be understood as the first (and on the opposite side of the stroller the "second") attachment frame members. While not visible due to the housing, a POSITA would understand that the fixed adapter shown in Figures 1–3 would also be understood as having first/second attachment frame members which are inserted and secured into the housings.



EX1047, Rolicki, Figs. 9B-10 (Annotated)

292. Therefore, Rolicki's discloses or render obvious limitations [1.6]–[1.7].

> … ***[1.8] wherein the first seat and the second seat, when connected to the frame, are arranged in an inline descending configuration along the stroller frame.***

293. Rolicki discloses two seats 106 coupled to the frame 102 by seat

mounts 108. (EX1047, Rolicki, 3:51-64.) I have included two instances of how a POSITA would understand the first/second seats when connected to the frame are "are arranged in an inline descending configuration along the stroller frame." Below to the left, I traced an arrow somewhat along the frame itself which visually illustrates the seats are inline and descending. On the right, I traced an arrow through the portions of the seat where the infant's buttocks would be located. This would also be understood as being an "inline descending configuration along the stroller frame."

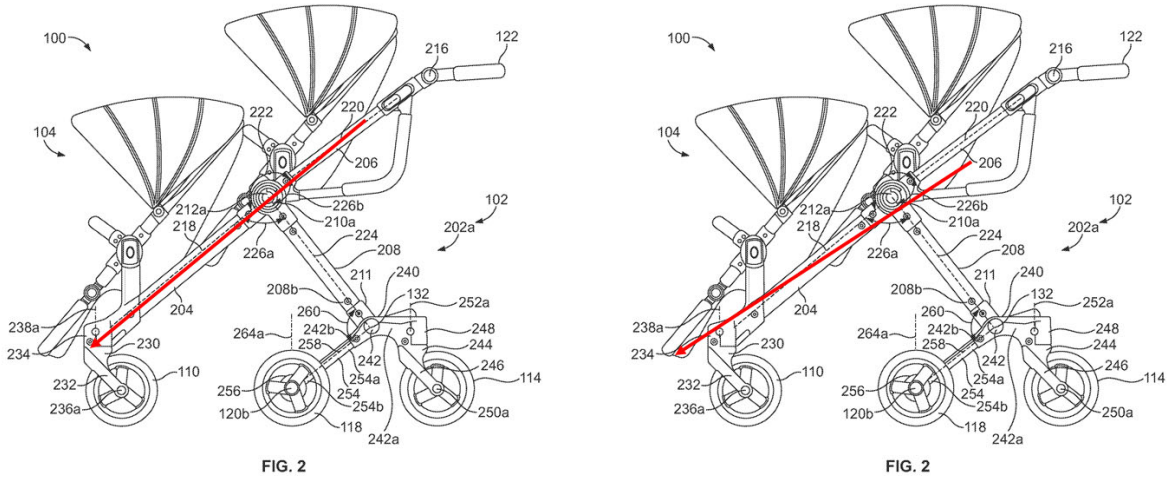


FIG. 2

FIG. 2

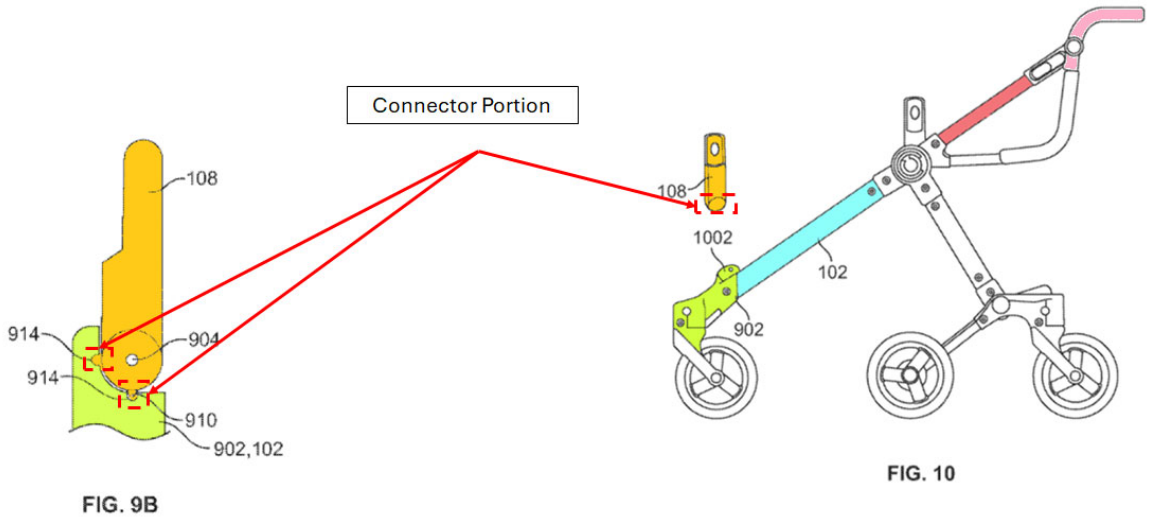
EX1047, Rolicki, Fig. 2 (Annotated)

294. Therefore, Rolicki's discloses or render obvious limitation [1.8].

… ***[2.0] The stroller of claim 1, further comprising a first connector portion and a second connector portion, wherein the first seat attachment adapter is removably coupled to the first seat attachment housing via the first connector portion, and wherein the second seat attachment adapter is removably coupled to the second seat attachment housing via the second connector portion.***

295. As I discussed above in claim 1, Rolicki has left and right seat mounts 108 for attaching the lower seat 106 ("second set") to the stroller frame 102. (EX1047, Rolicki, 3:51–64, Figs. 1–3.)

296. The rotatable adapter (Fig. 9B) is disclosed as having a "latch 910" to engage the "recess 914" located within the housings. (EX1047, Rolicki, 12:48-67.) These "latches" would be understood by a POSITA as being the first/second "connector portions." Likewise, the removable adapters (Figure 10) are disclosed as including "a lock or latch mechanism securing the seat mounts 108 to the connector 902 and/or the frame 102[.]" (EX1047, 13:1-9.) The "locks" or "latches" would be understood by a POSITA as being the first/second "connector portions." I have circled a portion near the bottom of the adapter, but the locks/latches could be located on the side as well. The location is not as important as the fact that Rolicki's latches/locks would be the first/second connector portions allowing for the removable coupling. In both cases the adapter is "removably" or "rotatably" (which is still removable from the recess) coupled to the housing.



EX1047, Rolicki, Figs. 9B-10 (Annotated)

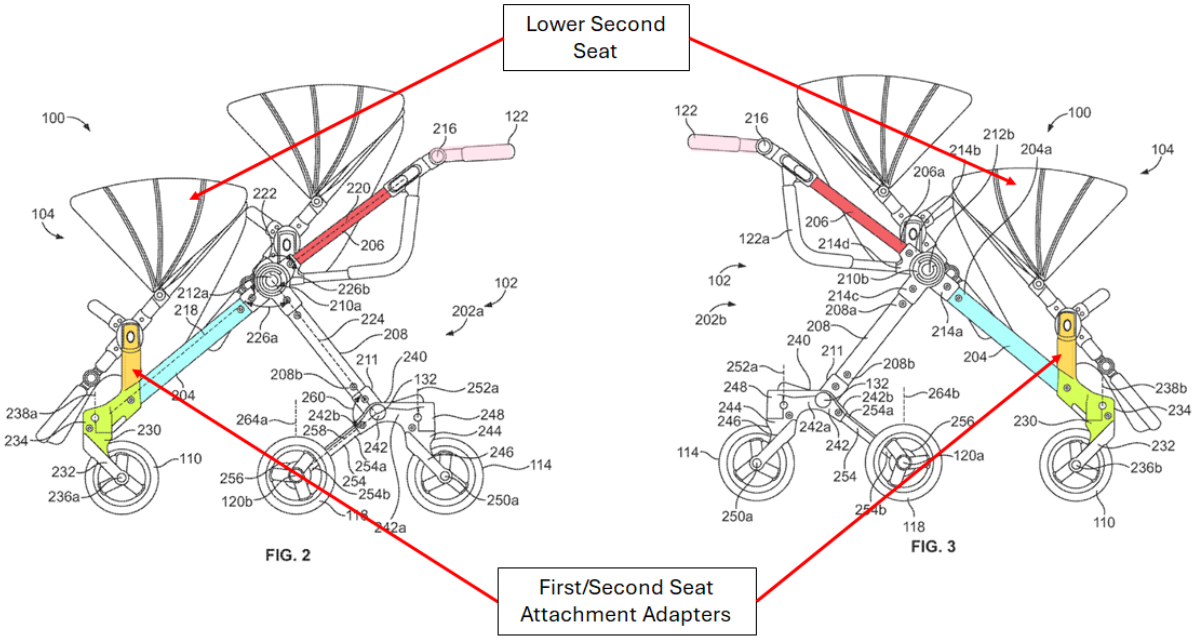
297. Rolicki discloses or renders obvious claim 2.

… ***[3.0] The stroller of claim 2, further comprising a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter.***

298. As I explained in limitations [1.4]–[1.7], Rolicki discloses a second, lower seat 106 that is removably coupled to the left and right lower seat mounts 108 (first and second "seat attachment adapter[s]").

> More specifically, the **infant seats 106 removably couple to the seat mounts 108 via an *interface* (e.g., a latch or connector) provided by the seats 106 and the seat mounts 108**. To remove the infant seats 106 from the seat mounts 108, a connector defined by the interface is released via a release (e.g., a spring-loaded push button).

(EX1047, Rolicki, 3:55-61; see also 3:49-64.)



EX1047, Rolicki, Fig. 2 (Annotated)

299. Rolicki discloses or renders obvious claim 3.

… ***[4.0] 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.***

300. As discussed in limitation [1.7], Rolicki discloses embodiments where the adapter is fixed, rotatably fixed, or removable. In each embodiment, the first/second adapters (*i.e.*, right/left side adapters) would include a "first end" near the bottom and a "distal second end" near the top where the second seat would be coupled. (EX1047, Rolicki, 3:49-64, 12:46-67, 13:1-9.)

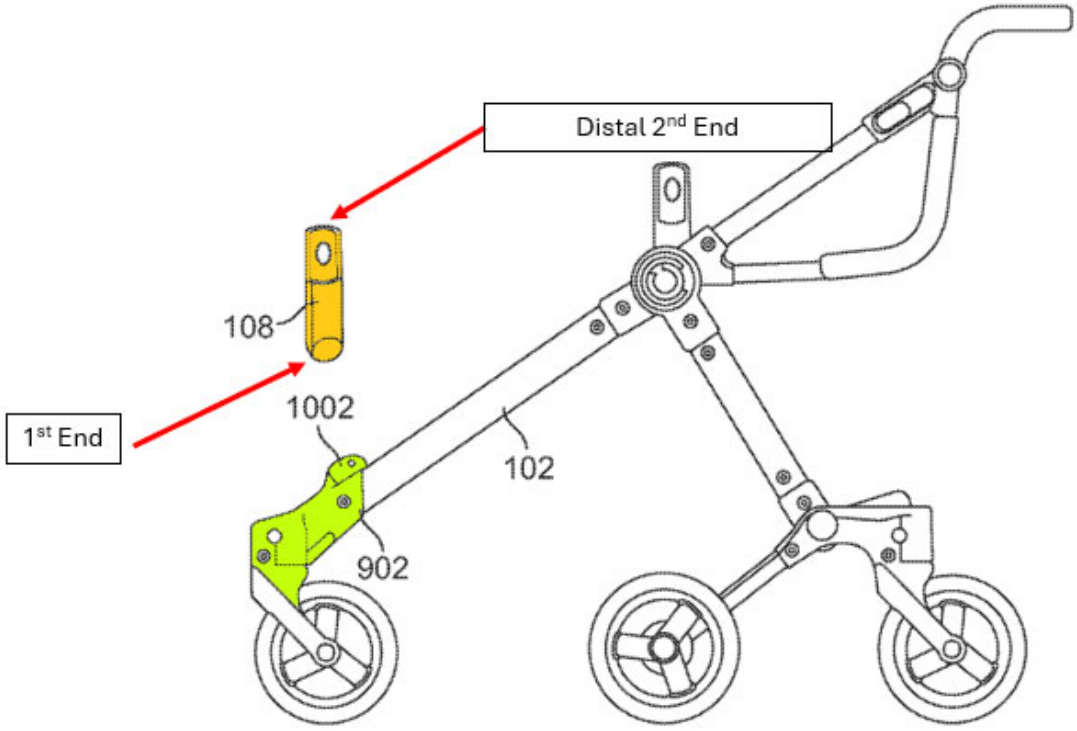


FIG. 10

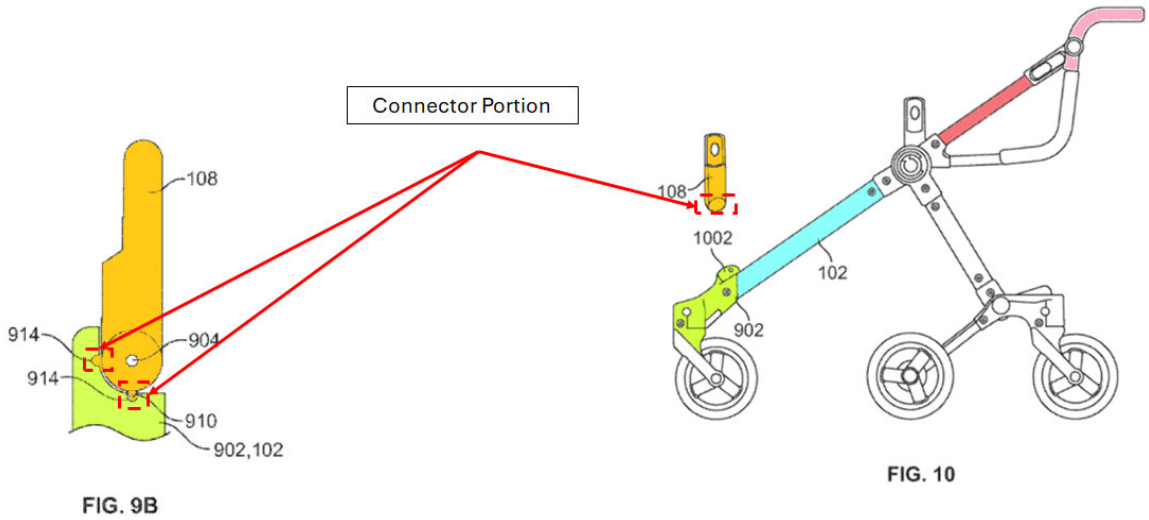
EX1047, Rolicki, Fig. 10 (Annotated)

301. Therefore, Rolicki discloses or renders obvious claim 4.

… ***[5.0] The stroller of claim 4, wherein the first end comprises the respective first connector portion or the second connector portion and, and the first end is releasably connected to the respective first seat attachment housing or the second seat attachment housing.***

302. As I explained in claim 2, Rolicki discloses first/second "connector portion[s]" which releasably connect the first/second adapters to the first/second housings. (EX1047, Rolicki, 3:49-64, 12:46-67, 13:1-9.) In claim 4, I identified the

"first end" which would be the section of the first/second adapters which are releasably connected to the first/second housings.

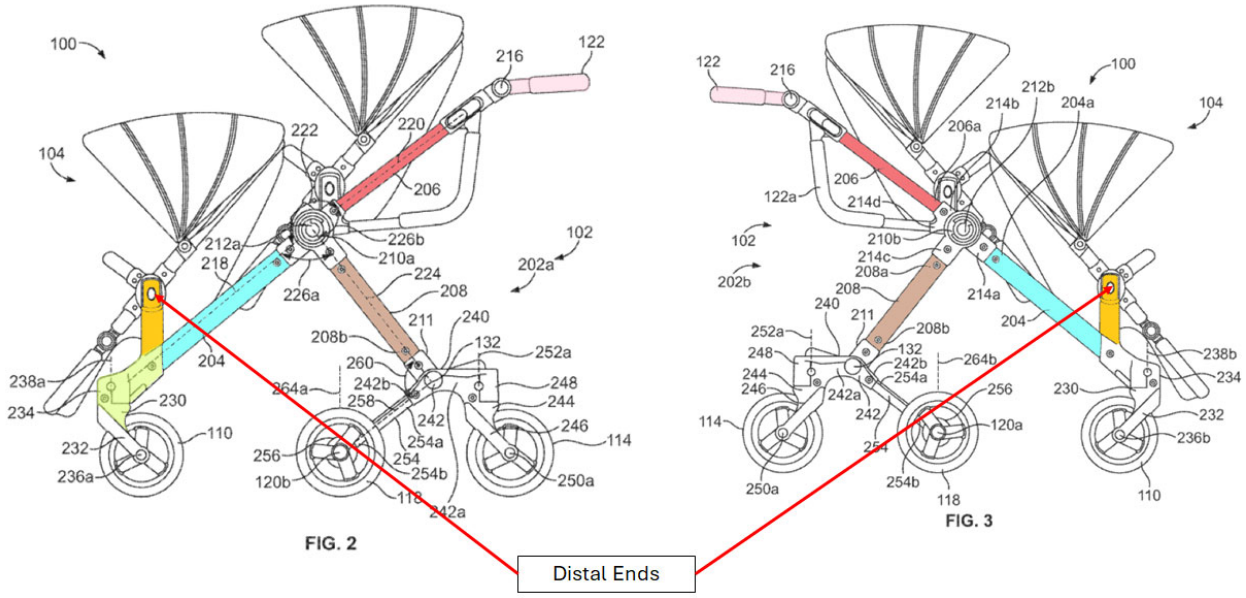


EX1047, Rolicki, Figs. 9B-10 (Annotated)

303. Therefore, Rolicki discloses or renders obvious claim 5.

… ***[6.0] The stroller of claim 4, wherein the distal second end is releasably connected to a second seat.***

304. As I discussed above in claims 3–4, Rolicki discloses the upper ends ("distal second ends") of the "seat mounts 108" which are the first/second adapters having an interface (*i.e.*, latch or connector) that will allow the upper (second) seat to be releasably connected. (EX1047, Rolicki, 3:49-64.)



EX1047, Rolicki, Figs. 2-3 (Annotated)

305. Therefore, Rolicki discloses or renders obvious claim limitation [6.0].

… ***[7.0] The stroller of claim 3, 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.***

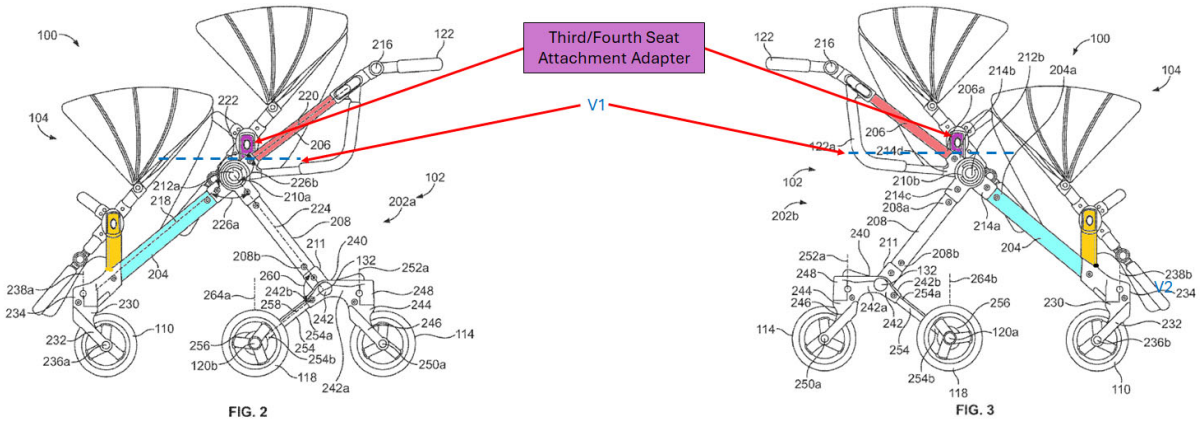
306. As discussed above in claim 1, Rolicki discloses a "stroller 100" having "one or more child and/or infant seats 106." (EX1047, Rolicki, 3:51–53.) As I further discussed in claim 1, the upper seat is the "first seat" and the lower seat is the "second seat". (EX1047, Rolicki, 3:51–53, Figs. 2-3.) A POSITA would recognize "infant seat" to be a "baby seat" and "child seat" to be a "stroller seat" as required by claim 7. Further, Rolicki's figures show, and a POSITA would have understood, the stroller as including first and second "baby" or "stroller" seats.

307. Accordingly, it is my opinion that Rolicki discloses or renders obvious claim limitation [7.0].

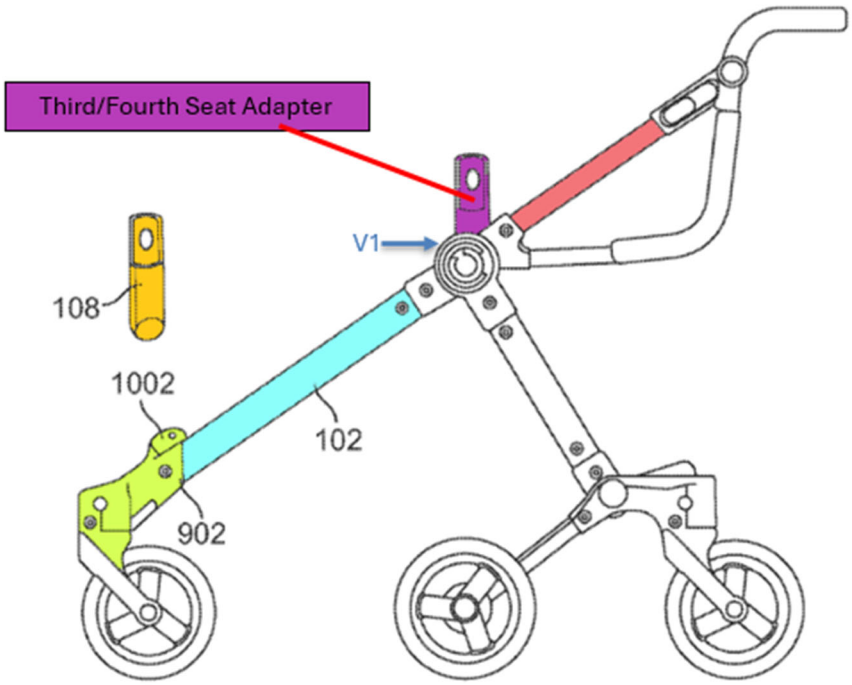
> … ***[8.0] The stroller of claim 1, further comprising: a third seat attachment adapter coupled to the stroller frame at the first vertical position; and a fourth seat attachment adapter coupled to the stroller frame at the first vertical position; wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter.***

308. As I discussed above in claim 1, Rolicki discloses upper and lower seats 106 arranged stadium style. (See also EX1047, Rolicki, Fig. 2.) As I also discussed, the upper seat is coupled to the frame 102 by two upper seat mounts 108 (purple) at the first vertical position (V1).

309. When describing the seat mounts 108, Rolicki does not differentiate the upper seat mounts (purple) from the lower seat mounts (gold). That is, Rolicki describes all of the seat mounts 108 together. Therefore, a POSITA would have understood the upper seat mounts 108 (purple) are the third/fourth "seat attachment adapters" that allow the upper (first) seat to be removably coupled. (EX1047, Rolicki, 3:49-64.).



EX1047, Rolicki, Figs. 2-3 (Annotated)



EX1047, Rolicki, Fig. 10 (Annotated)

310. The upper seat 106 ("first seat") is removably coupled to the left and right upper seat mounts 108 ("third and fourth adapters") by the interfaces. (EX1047, Rolicki, 3:53-61.)

311. Accordingly, it is my opinion that Rolicki discloses or renders

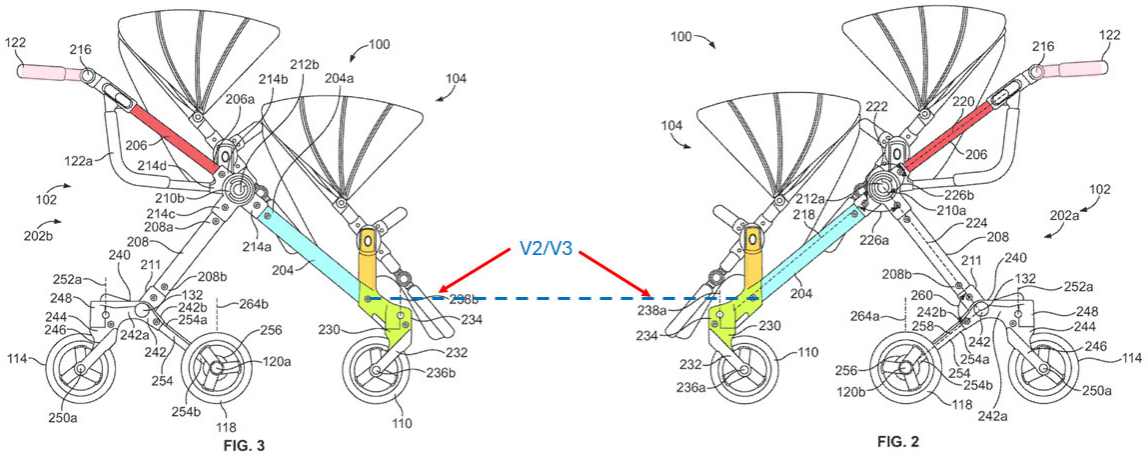
obvious claim limitation [8.0].

… ***[9.0] The stroller of claim 1, wherein the second vertical position and the third vertical position are at a same vertical height.***

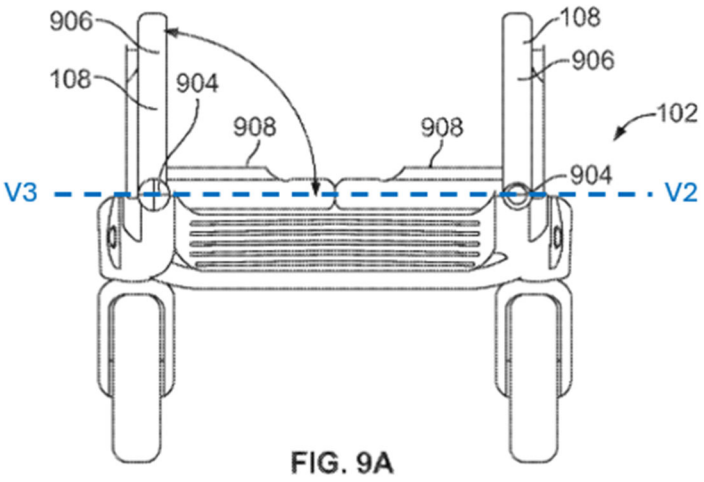
312. As I discussed in claim limitations [1.4]–[1.5], the left lower seat mount 108 ("first adapter") is coupled to the stroller frame at a second vertical position (V2) and the right lower seat mount 108 ("second adapter") is coupled to the stroller frame at a third vertical position (V3).

313. Rolicki states: "The first and second side frame assemblies 202*a*, 202*b* of the illustrated example are substantially similar or identical and are symmetrical." (EX1047, Rolicki, 5:40-43.) Given the symmetry (as shown by Figures 2 and 3), a POSITA would understand the second vertical position (V2) and the third vertical position (V3) are at a same vertical height. (EX1047, Rolicki, 5:37-43.)

314. As I have shown below with reference to Figures 2–3 and 9A, a POSITA would understand the first/second vertical heights (V2/V3) are at the same vertical height along the stroller frame.

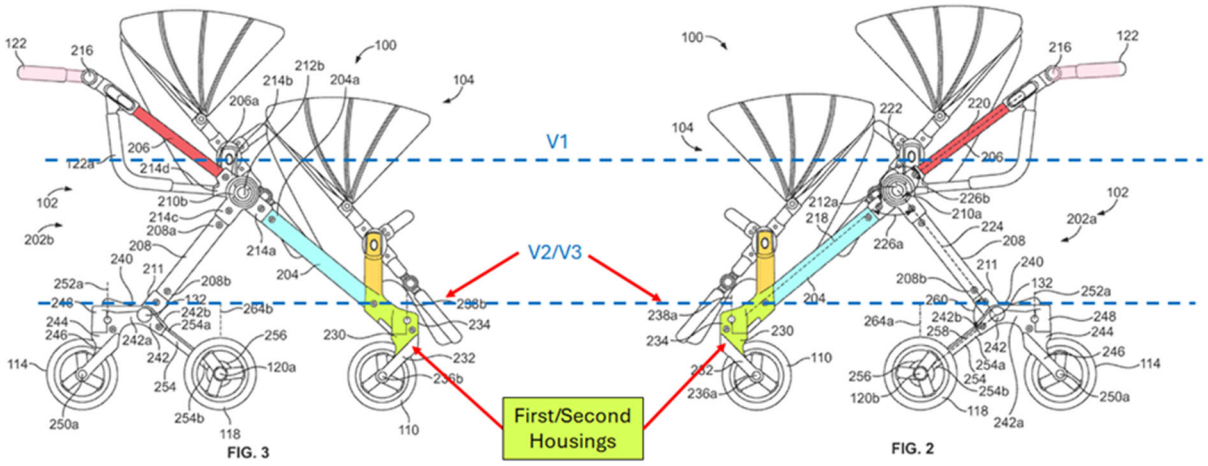


EX1047, Rolicki, Figs. 2-3 (Annotated)



EX1047, Rolicki, Fig. 9A (Annotated)

315. It is also shown in Figures 2-3 below that the right housing is at the same height as the left housing.



EX1047, Rolicki, Figs. 2-3 (Annotated)

316. Moreover, a skilled artisan would have understood that the second and third vertical positions must be at the same vertical position or the seat 106 would be slanted and unsafe.

317. Thus, it would have been obvious to have "the second vertical position and the third vertical position … at a same vertical height."

318. Therefore, it is my opinion that Rolicki discloses or renders obvious limitation [9.0].

… ***[10.0] The stroller of claim 1, wherein the stroller frame comprises:***

319. I incorporate my analysis from claim [1.0], as Rolicki discloses a "stroller 100" that includes "a frame 102." (EX1047, Rolicki, 3:51–52.)

… ***[10.1] a first upper tube support frame;***

… ***[10.2] a second upper tube support frame;***

320. The frame 102 has left-side and right-side frame supports 202a, 202b. Each of the side frame supports includes an upper frame support 206 (red). Rolicki illustrates and discloses a perspective view of a stroller in Figure 1. Rolicki even states: "[t]he first and second side frame assemblies 202*a*, 202*b* of the illustrated example are substantially similar or identical and are symmetrical." A POSITA would therefore understand the design of the upper frame support 206 on the right-hand side would be "substantially similar or identical and … symmetrical" to the upper frame support 206 on the left-hand side. Indeed, this is shown by Figures 2 and 3 below.

> **FIG. 2 illustrates a first or left side view of the stroller 100. FIG. 3 illustrates a second or right side view of the example stroller 100 of FIG. 1**. Referring to FIGS. 2 and 3, the frame 102 of the illustrated example includes a first side frame assembly 202*a* laterally spaced from a second side frame assembly 202*b* to define the seating area 104. **The first and second side frame assemblies 202*a*, 202*b* of the illustrated example are substantially similar or identical and are symmetrical**. The handle 122 of the illustrated example extends between the side frame assemblies 202*a*, 202*b* and may be formed from a single tube that is bent into a generally U-shaped structure.

Referring to **FIGS. 2 and 3**, each of the side frame assemblies 202*a*, 202*b* of the illustrated example includes a lower frame support 204, **an upper frame support 206**, and an intermediate frame support 208. In the illustrated example, the frame supports 204, 206 and 208 have a substantially linear profile (e.g., a straight and/or flat profile). However, in other examples, the frame supports 204, 206 and 208 may be any shape, including a generally curved shape or a shape having one or more curved and/or linear portions.

(EX1047, Rolicki, 5:35-55.)

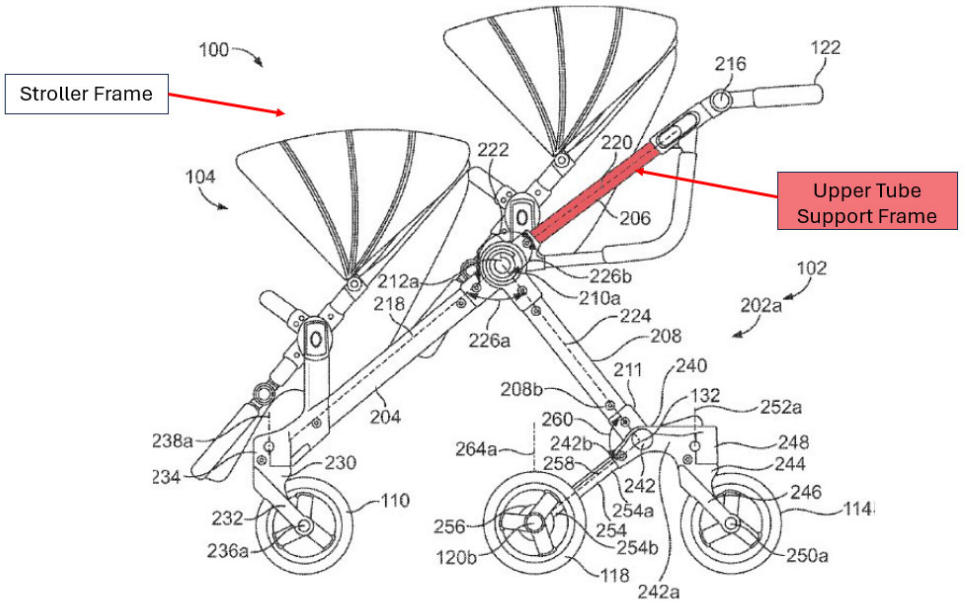
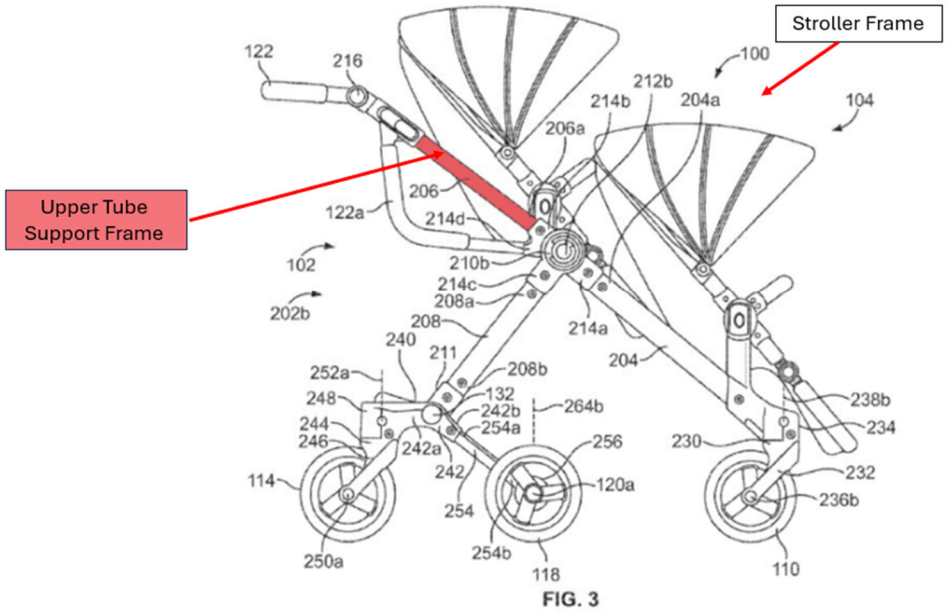


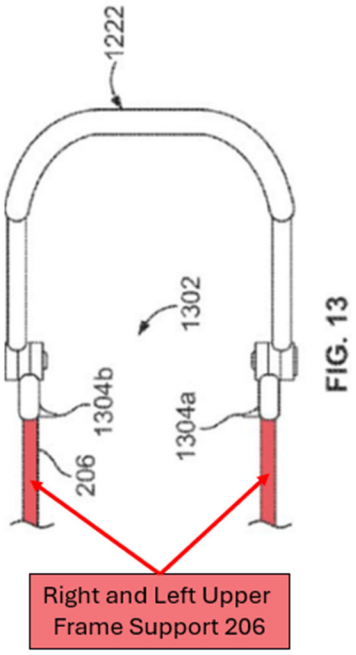
FIG. 2

EX1047, Rolicki, Fig. 2 (Left Upper Tube Support Frame Annotated)



EX1047, Rolicki, Fig. 3 (Right Upper Tube Support Frame Annotated)

321. Figure 13 further illustrates a top view showing Rolicki's right and left "upper frame support 206."

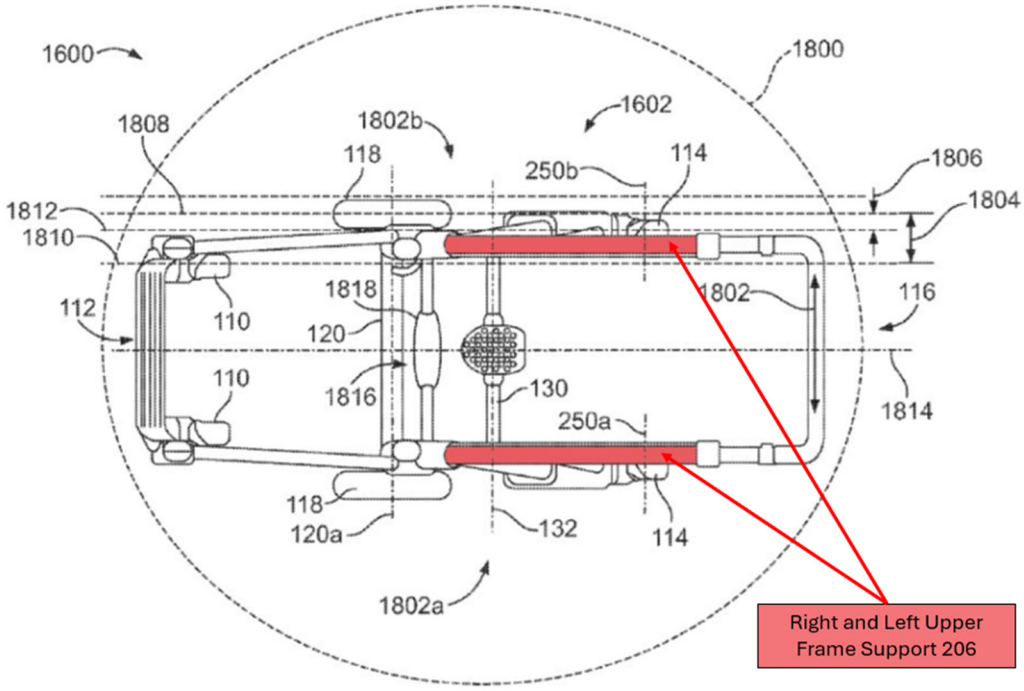


EX1047, Rolicki, Fig. 13 (Annotated)

> FIG. 13 is a plan view of the example handle 1222 coupled to the **upper frame support 206** of FIG. 12. As shown in the illustrated example of FIG. 13, the example stroller 1200 employs a latch release 1302 to collapse the stroller 1200 of the illustrated example. To activate the latch release 1302, one or more triggers 1304*a*, 1304*b* of the release are moved relative to the upper frame support 206 (e.g., pulled, pushed, twisted, slid, etc.) to unlock a latch or lock provided by the pivot connector 210. Additionally, the latch release 1302, when activated, also releases a latch mechanism of the hub 1208 to enable the handle 1222 to rotate relative to the upper frame support 206.

(EX1047, Rolicki, 13:60-14:4.)

322. Figure 18 is also top view illustrating another embodiment of Rolicki. This top view further illustrates Rolicki discloses a stroller which would have both a right and left "upper frame support 206." (EX1047, Rolicki, 15:23-47.)



EX1047, Rolicki, Fig. 18 (Annotated)

323. A POSITA would have understood the left and right upper frame supports 206 (red) as being the "first upper tube support frame" and "second upper tube support frame." Therefore, it is my opinion that Rolicki discloses or renders obvious limitations [10.1]–[10.2].

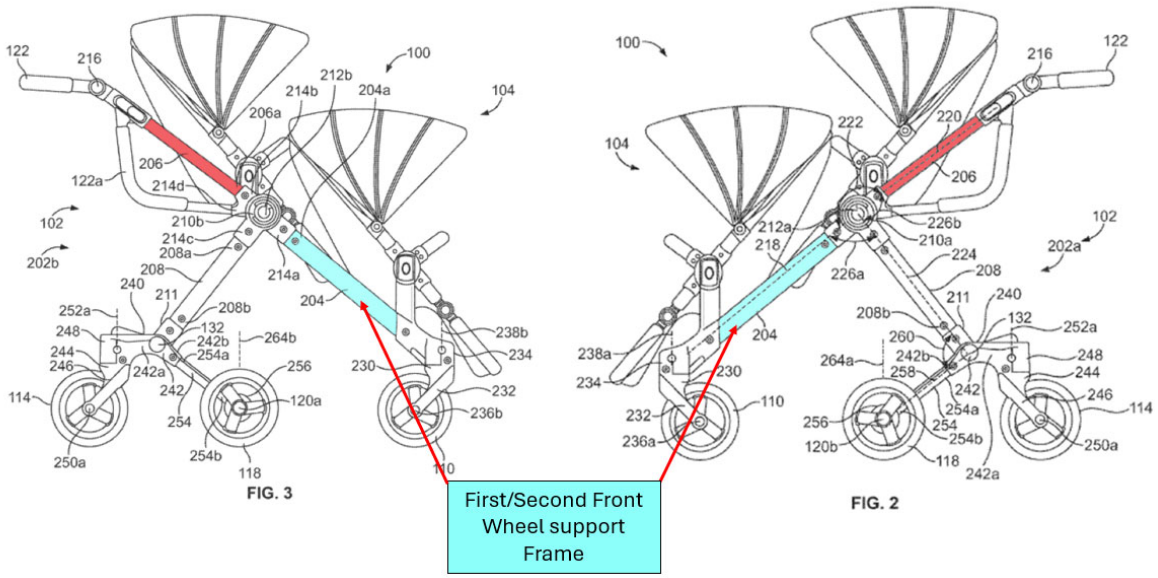
> … ***[10.3] a first front wheel support frame configured to rotate with respect to the first upper tube support frame;***
>
> … ***[10.4] a second front wheel support frame configured to rotate with respect to the second upper tube support frame;***

324. As discussed immediately above, Rolicki includes left-side and right-side frame assemblies 202a, 202b. Each of the side assemblies includes the above-discussed right and left upper frame (*i.e.*, tube) support (red).

325. Rolicki also discloses a lower frame support 204 (shaded blue). Again, Rolicki states Figure 2 is a left-side view and Figure 3 is a right-side view of the stroller illustrated in Figure 1. A POSITA would have also understood Rolicki as teaching lower frame supports 204 on the right-hand and left-hand side are "substantially similar or identical and … symmetrical."

> **FIG. 2 illustrates a first or left side view of the stroller 100. FIG. 3 illustrates a second or right side view of the example stroller 100 of FIG. 1.** Referring to FIGS. 2 and 3, the frame 102 of the illustrated example includes a first side frame assembly 202*a* laterally spaced from a second side frame assembly 202*b* to define the seating area 104. **The first and second side frame assemblies 202*a*, 202*b* of the illustrated example are substantially similar or identical and are symmetrical.** The handle 122 of the illustrated example extends between the side frame assemblies 202*a*, 202*b* and may be formed from a single tube that is bent into a generally U-shaped structure.
>
> Referring to FIGS. 2 and 3, **each of the side frame assemblies 202*a*, 202*b*** of the illustrated example **includes a lower frame support 204, an upper frame support 206**, and an intermediate frame support 208. In the illustrated example, the frame supports 204, 206 and 208 have a substantially linear profile (e.g., a straight and/or flat profile). However, in other examples, the frame supports 204, 206 and 208 may be any shape, including a generally curved shape or a shape having one or more curved and/or linear portions.

(EX1047, Rolicki, 5:35-55.)



EX1047, Rolicki, Figs. 2-3 (Annotated)

326. The lower frame supports 204 (blue) are "coupled or attached" to a "front wheel housing 230" which is then attached to front wheels 110. A POSITA would therefore understand both the right-hand and left-hand lower frame supports 204 (blue) as being the "first front wheel support frame" and the "second front wheel support frame."

> Referring to FIGS. 2 and 3, **to mount or attach the front wheels 110 of the illustrated example to respective ones of the side frame assemblies 202*a*, 202*b*, each of the front wheels 110 of the illustrated example includes a front wheel housing 230.** For example, **the front wheel housing 230 may be coupled or attached to an end of the lower frame support 204**. Each front wheel housing 230 of the illustrated example includes a fork or wheel support 232 rotatably mounted to a connector 234. Each front wheel 110 is

> rotatably journalled to the wheel support 232 to enable each of the front wheels 110 to rotate independently about a separate axis of rotation 236*a*, 236*b* (e.g., a substantially horizontal axis relative to a level ground surface on which the stroller 100 is positioned).

(EX1047, Rolicki, 7:4-16; see also 7:4-24.)

327. Rolicki teaches the upper frame supports 206 and lower frame supports 204 are pivotally coupled by folding mechanisms, e.g., pivot joints 210, that allow the stroller frame 102 to be foldable from the in-use or unfolded position (see *e.g.*, Figures 2 and 3 above) to a folded position (see *e.g.*, Figure 8) and vice versa.

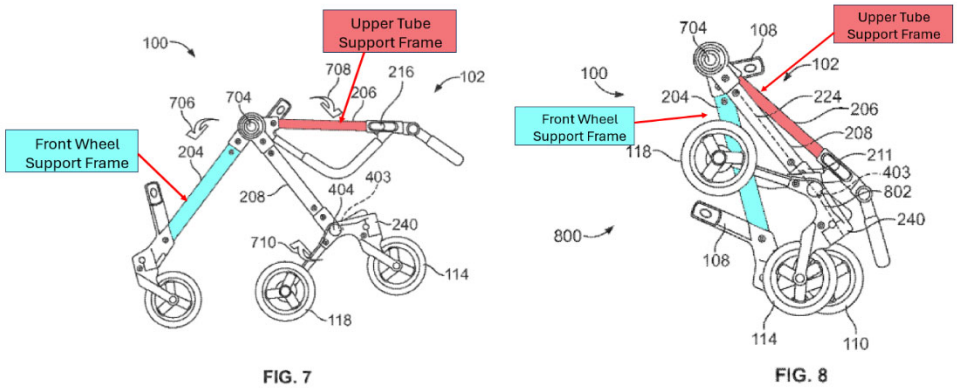
> For the purpose of enabling the stroller 100 of the illustrated example to fold or collapse in at least one direction, **the frame supports 204, 206 and 208 of the first side frame assembly 202*a* are pivotally coupled via a first pivot connector or pivot joint 210*a***. More specifically, the connector or pivot joint 210*a* is defined by a hub 212*a* (e.g., a T-shaped hub) to receive a respective end of each of the frame supports 204, 206 and 208 of the first side frame assembly 202*a*. The hub 212*a* of the illustrated example enables the frame supports 204, 206 and 208 to pivot relative to each other to, for example, collapse the stroller 100 as discussed in greater detail below.
>
> ***
>
> The legs 214*a-c* enable the frame supports 204, 206 and 208 to pivot relative to each other about the respective pivot connectors 210*a*,

> 210*b* when a locking mechanism (e.g., a latch) of the hubs 212*a*, 212*b* is in a released or unlocked condition. When the locking mechanism of the hubs 212*a*, 212*b* is in a locked condition, **the frame supports 204, 206 and 208 cannot rotate or pivot relative to each other about the respective pivot connectors 210*a*, 210*b***. The locking mechanism of the hubs 212*a*, 212*b* may be moved to an unlocked condition via a release actuator 216 positioned on the upper frame support that may be activated by a user.

(EX1047, Rolicki, 5:56-67, 6:17-28; see also 5:56-6:28.)

> More specifically, in the unlocked condition, the **frame supports 204, 206 and/or 208 are freed to rotate or pivot relative to each other about a pivot 704 provided by the pivot connectors 210*a*, 210*b***. In the illustrated example, the lower and upper frame supports 204, 206 of the illustrated example pivot toward the intermediate frame support 208 in the direction shown by the respective arrows 706 and 708 into the configuration illustrated in FIGS. 7 and 8. Further, the carriage 240 of the illustrated example also rotates toward the intermediate frame support 208 in a direction represented by arrow 710 when folding the stroller 100 to the **folded position 800**.

(EX1047, Rolicki, 12:22-33; see also 12:6-37.)



EX1047, Rolicki, Figs. 7-8 (Annotated)

328. Therefore, it is my opinion that Rolicki discloses or renders obvious claim limitations [10.3] and [10.4].

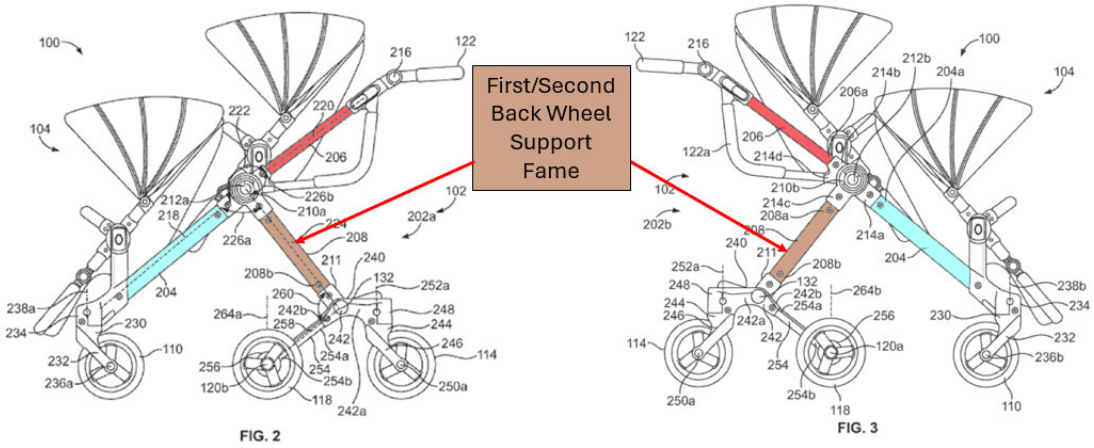
> … ***[10.5] a first back wheel support frame configured to rotate with respect to the first upper tube support frame; and***
>
> … ***[10.6] a second back wheel support frame configured to rotate with respect to the second upper tube support frame.***

329. The frame 102 has left-side and right-side frame supports 202a, 202b. Rolicki illustrates and discloses a perspective view of a stroller in Figure 1. Rolicki discloses each side frame assembly 202a, 202b further includes an intermediate frame support 208 (brown). Rolicki even states: "[t]he first and second side frame assemblies 202*a*, 202*b* of the illustrated example are substantially similar or identical and are symmetrical." (EX1047, Rolicki, 5:40–43.) A POSITA would therefore understand the design of the intermediate frame support 208 on the right-hand side would be "substantially similar or identical and … symmetrical" to the

intermediate frame support 208 on the left-hand side. Indeed, this is shown by Figures 2 and 3 below. A POSITA would have understood the right/left intermediate frame supports 208 are the "first/second back wheel support frame."

> FIG. 2 illustrates a first or left side view of the stroller 100. FIG. 3 illustrates a second or right side view of the example stroller 100 of FIG. 1. Referring to FIGS. 2 and 3, the frame 102 of the illustrated example includes a first side frame assembly 202*a* laterally spaced from a second side frame assembly 202*b* to define the seating area 104. The first and second side frame assemblies **202*a*, 202*b*** of the illustrated example are **substantially similar or identical and are symmetrical.** The handle 122 of the illustrated example extends between the side frame assemblies 202*a*, 202*b* and may be formed from a single tube that is bent into a generally U-shaped structure.
>
> Referring to FIGS. 2 and 3, **each of the side frame assemblies 202*a*, 202*b*** of the illustrated example **includes** a lower frame support 204, an upper frame support 206, and ***an intermediate frame support 208***. In the illustrated example, the frame supports 204, 206 and 208 have a substantially linear profile (e.g., a straight and/or flat profile). However, in other examples, the frame supports 204, 206 and 208 may be any shape, including a generally curved shape or a shape having one or more curved and/or linear portions.

(EX1047, Rolicki, 5:35-55.)



EX1047, Rolicki, Figs. 2–3 (Annotated)

330. Both the right and left intermediate frame supports 208 (brown) extend from the pivot joint 210 to the rear wheels.

> The **intermediate support frame 208 of the illustrated example projects from the respective hubs 212*a* and 212*b* toward the rear wheels 114**. To enable the frame 102 to pivot relative to the intermediate wheels 118 and/or the rear wheels 114, **the intermediate frame support 208 is pivotally coupled to the axle 130** (FIG. 1). More specifically, in the illustrated example, a second end 208*b* of the intermediate frame support 208 is coupled to the axle 130 (FIG. 1) via a connector or bushing 211. The busing 211 of the illustrated example, which includes a portion coaxially coupled to the axle 130, enables the intermediate frame support 208 and, thus, the lower and upper frame supports 204, 206 to pivot about the axis 132 of the axle 130.

(EX1047, Rolicki, 6:41-53.)

331. The intermediate frame supports 208 are the portion of the side frames 202a, 202b that support the back wheels and are therefore first and second "back wheel support frame[s]."

332. As shown in Figures 2 and 3, the intermediate frame supports 208 (brown) are allowed to pivot, *i.e.*, rotate, with to respect to their corresponding upper frame supports 206 (red). (See *e.g.*, EX1047, Rolicki, 5:56-6:28.)

> The hub 212*a* of the illustrated example enables the frame supports 204, 206 and 208 to pivot relative to each other to, for example, collapse the stroller 100 as discussed in greater detail below.

(EX1047, Rolicki, 5:63-67.)

> Like the hub 212*a*, the hub 212*b* enables the frame supports 204, 206 and 208 of the second side frame assembly 202*b* to pivot relative to each other.

(EX1047, Rolicki, 6:6-8.)

333. Rolicki even illustrates and discloses that when the stroller is in the unlocked state, the upper frame support 206 and the intermediate frame support 208 "rotate or pivot relative to each other about a pivot 704[.]"

> More specifically, in the unlocked condition, the **frame supports 204, 206 and/or 208 are freed to rotate or pivot relative to each other about a pivot 704 provided by the pivot connectors 210*a*, 210*b***. In the illustrated example, the lower and upper frame supports 204, 206 of the illustrated example pivot toward the intermediate frame support

208 in the direction shown by the respective arrows 706 and 708 into the configuration illustrated in FIGS. 7 and 8. Further, the carriage 240 of the illustrated example also rotates toward the intermediate frame support 208 in a direction represented by arrow 710 when folding the stroller 100 to the folded position 800.

(EX1047, Rolicki, 12:22-33; see also 12:6-37.)

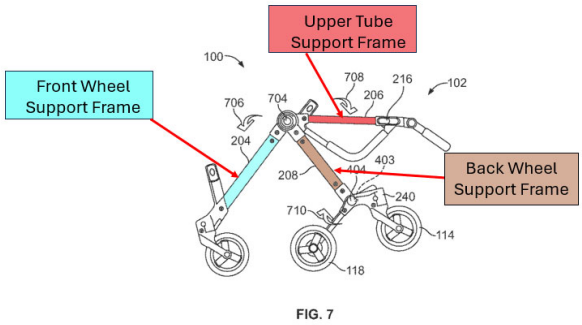


FIG. 7

EX1047, Rolicki, Fig. 7 (Annotated)

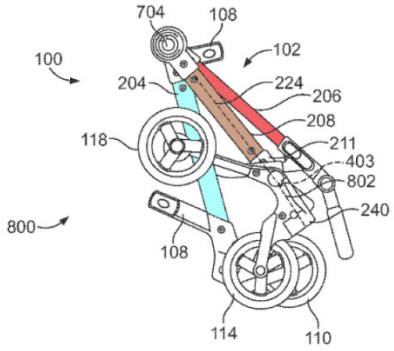


FIG. 8

EX1047, Rolicki, Fig. 8 (Annotated)

334. Therefore, it is my opinion that Rolicki discloses or renders obvious limitations [10.5] and [10.6].

… ***[11.0] The stroller of claim 10, wherein the first seat is coupled along the first upper tube support frame and the second upper tube support frame,***

335. Rolicki discloses that frame 102 defines "a seating area 104" to support first and second child seats 106.

> The example stroller 100 of FIG. 1 includes a frame 102 defining a **seating area 104 to accommodate or support one or more child and/or infant seats 106**. To support the infant seats 106, the frame 102 of the illustrated example includes one or more infant seats mounts 108. More specifically, **the infant seats 106 removably couple to the seat mounts 108 via an interface** (e.g., a latch or connector) provided by the seats 106 and the seat mounts 108. To remove the infant seats 106 from the seat mounts 108, a connector defined by the interface is released via a release (e.g., a spring-loaded push button). Additionally or alternatively, the seat mounts 108 may be adjusted along the frame 102 to adjust a position of the infant seats 106 relative to the frame 102 and/or each other.

(EX1047, Rolicki, 3:51-64.)

336. Rolicki illustrates a pair of seats 106 arranged stadium-style with an upper seat and a lower seat. As I have annotated below, the upper and lower seats 106 are connected to the left and right sides of the stroller frame 102 via four seat mounts 108. (EX1047, Rolicki, 3:51-55.) The upper seat is coupled to the two upper mounts 108 located on both the left and right upper frame supports 206

(red), *i.e.*, the claimed "first/second upper tube support frame." The seat mounts 108 allow the seats 106 to be removably connected to the stroller 100. A POSITA would understand the upper support frame (red) and mounts 108 are connected at a common connection point – circled in red below. This connection point would be understood by a POSITA as allowing the seat mount 108 to be coupled to the upper frame support 206.

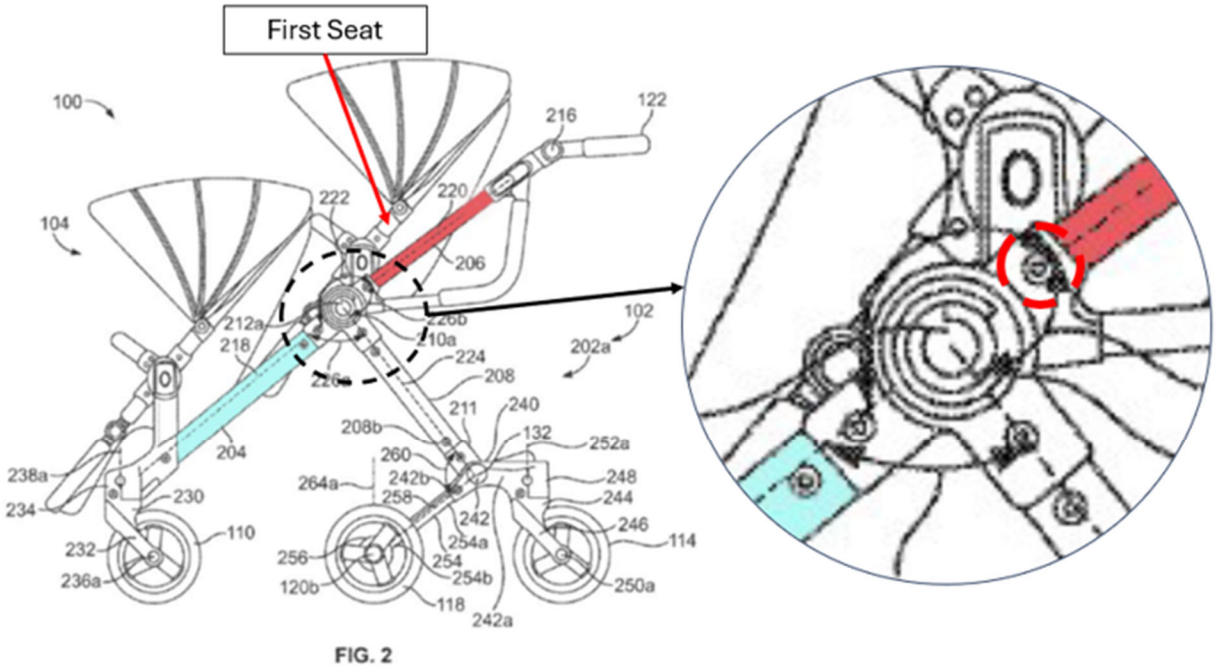
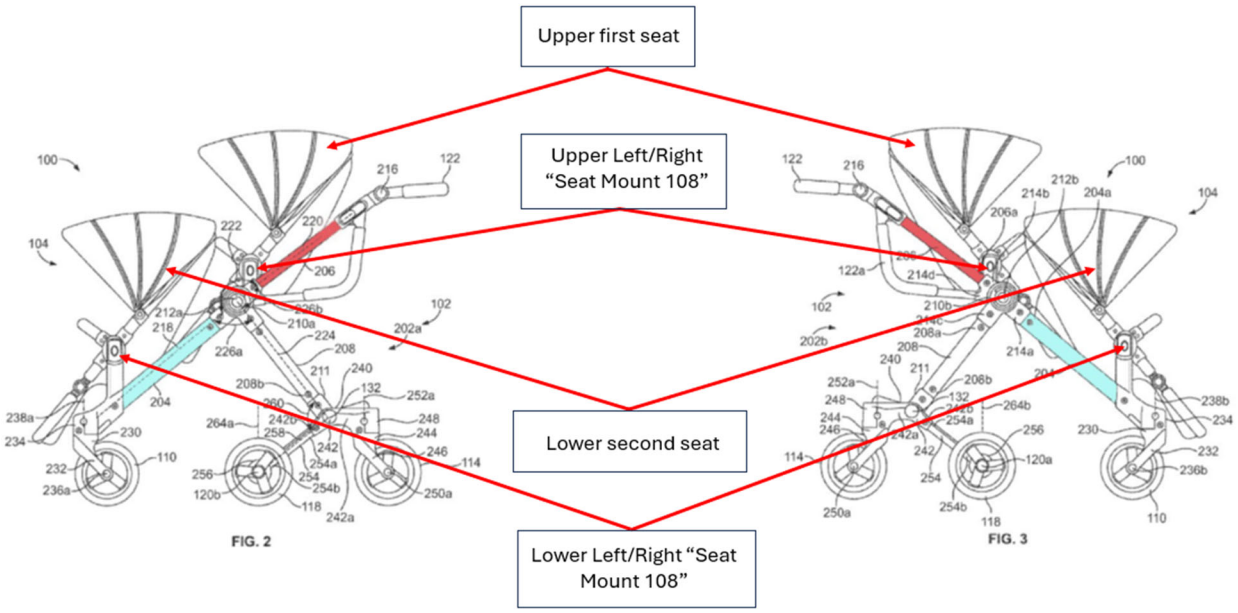


FIG. 2

EX1047, Rolicki, Fig. 2 (Annotated)



EX1047, Rolicki, Figs. 2-3 (Annotated)

> To support the infant seats 106, the frame 102 of the illustrated example includes one or more **infant seats mounts 108**. More specifically, the infant **seats 106 removably couple to the seat mounts 108 via an interface** (e.g., a latch or connector) provided by the seats 106 and the seat mounts 108. To remove the infant seats 106 from the seat mounts 108, a connector defined by the interface is released via a release (e.g., a spring-loaded push button).

(EX1047, Rolicki, 3:53-61.)

337. Rolicki illustrates (Figures 2/3) the seat mounts as being coupled to the stroller frame with what appears to be a bolt. Rolicki also discloses the seat mounts 108 can be permanently connected to the stroller frame 102 (e.g., Figs. 9A and 9B) or removably connected to the frame via a housing 902 (e.g., as shown in Figure 10).

> Referring to FIGS. 2 and 3, to mount or attach the front wheels 110 of the illustrated example to respective ones of the side frame assemblies 202*a*, 202*b*, each of the front wheels 110 of the illustrated example includes a front wheel housing 230. For example, the front wheel housing 230 may be coupled or attached to an end of the lower frame support 204.

(EX1047, Rolicki, 7:4-9.)

> The seat mounts 108 of the illustrated example are pivotally coupled or attached to a connector or housing 902 and/or the frame 202[18] of the stroller 1000.

(EX1047, Rolicki, 12:50-52.)

> In some examples, the seat mounts 108 may be removed relative to the frame 102 prior to or after the stroller 100 is in the folded position 800. For example, FIG. 10 illustrates the example **seat mounts 108 being removed from** an opening or pocket 1002 of the **connector 902 or the frame 202**. To remove the seat mounts 108 from the connector 902 and/or the frame 102, a lock or latch mechanism securing the seat mounts 108 to the connector 902 and/or the frame 102 is released and the seat mount 108 is removed from the opening 1002.

(EX1047, Rolicki, 13:1-9.)

[18] Rolicki incorrectly calls the frame "202," instead of the correct "102," in some paragraphs of the specification.

338. Rolicki teaches (as quoted above) the seat mounts 108 may be adjusted up and down the frame 102. A POSITA would have understood that Rolicki's mounts 108 for the upper seat could be moved upward on the upper frame supports (red). By adjusting the frame mounts upward, the coupling would necessarily be along the upper frame supports. Once adjusted, the vertical position shown above may also be adjusted upward along the upper support (red), further confirming that a POSITA would have found this limitation as being satisfied.

> Additionally or alternatively, the **seat mounts 108 may be adjusted along the frame 102** to adjust a position of the infant seats 106 relative to the frame 102 and/or each other.

(EX1047, Rolicki, 3:61-64.)

339. Therefore, it is my opinion that Rolicki discloses or renders obvious limitation [11.0].

> … ***[11.1] wherein the first seat attachment housing is coupled to the first front wheel support frame, and wherein the second seat attachment housing is coupled to the second front wheel support frame.***

340. I incorporate my analysis from claim 1, including [1.4]-[1.5].

341. Rolicki teaches "the front wheel housing 230 may be coupled or attached to an end of the lower frame support 204." As I have annotated below, the right/left housings – *i.e.*, the first/second seat attachment housings (green) – are

therefore coupled to the right/left "lower frame support 204[,]" *i.e.*, first/second front wheel support frames (blue).

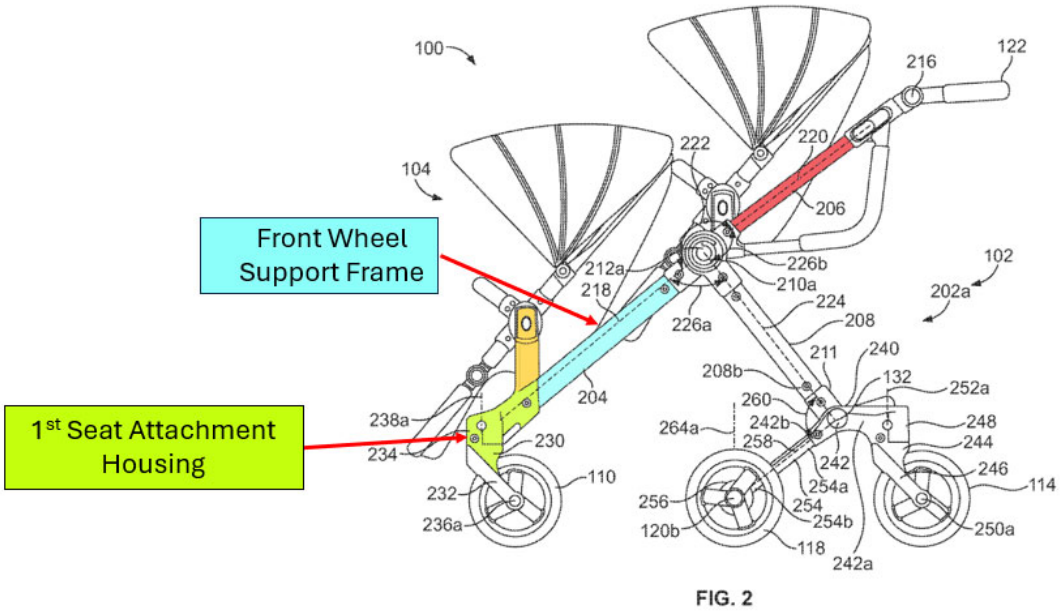


FIG. 2

EX1047, Rolicki, Fig. 2 (Annotated)

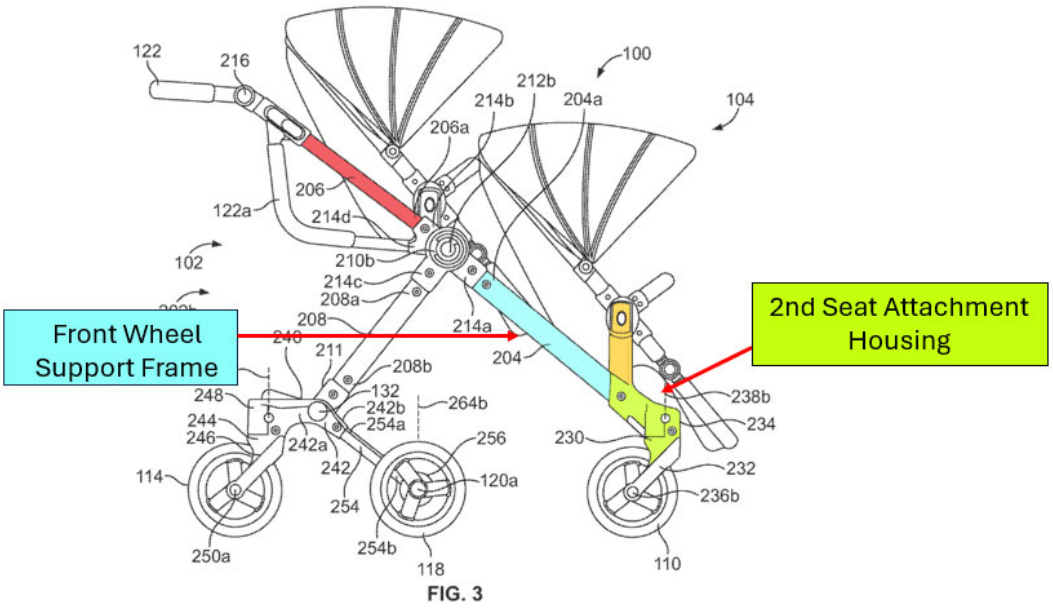


FIG. 3

EX1047, Rolicki, Fig. 3 (Annotated)

> Referring to FIGS. 2 and 3, to mount or attach the front wheels 110 of the illustrated example to respective ones of the side frame assemblies 202*a*, 202*b*, each of the front wheels 110 of the illustrated example includes a front wheel housing 230. For example, the front wheel housing 230 may be coupled or attached to an end of the lower frame support 204.

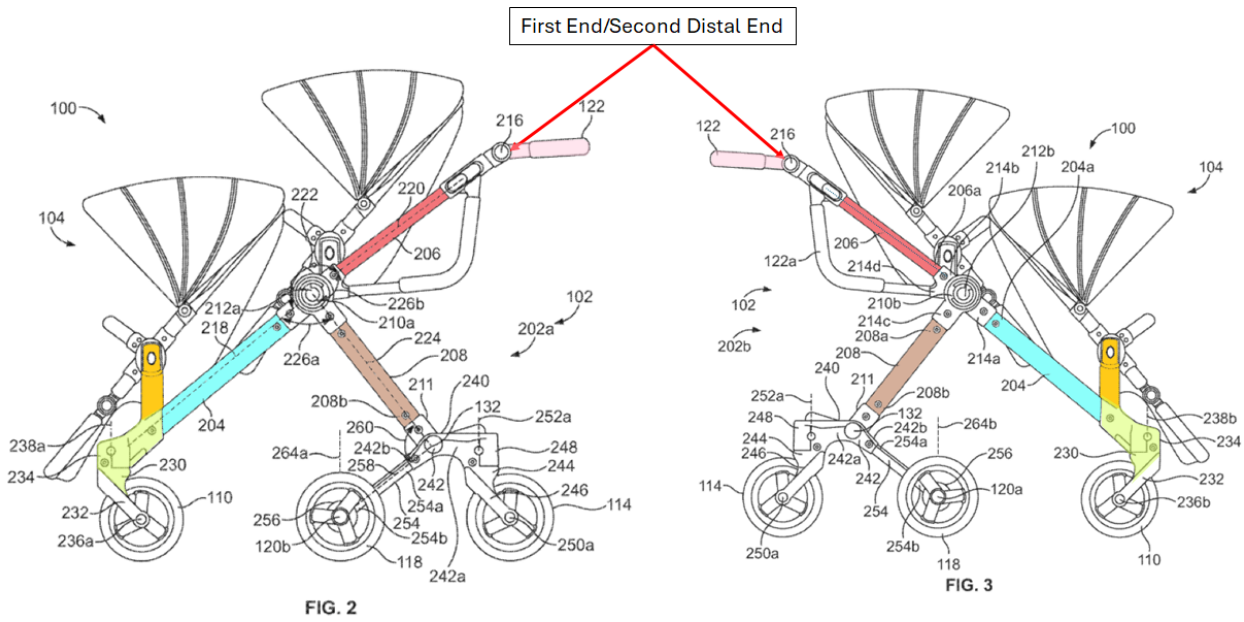
(EX1047, Rolicki, 7:4–9.)

342. Therefore, it is my opinion that Rolicki discloses or renders obvious limitation [11.1].

> … ***[12.0] The stroller of claim 10, further wherein the handle portion comprises a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame.***

343. As I discussed in claim limitation [1.1], Rolicki discloses a handle 122 ("handle portion"). The handle 122 is coupled to the frame 102 by two tilt joints 126. (EX1047, Rolicki, 5:15–17.) As illustrated in Figures 2 and 3, the portion of the frame that is coupled to the tilt joint 126 is the upper frame support 206 (red). Here, the handle 122 has a "first end" coupled to the first upper frame support 206 ("first upper tube support frame") via the first frame tilt joint 126 and a "distal second end" coupled to the second upper frame support 206 ("second upper tube support frame") via the second frame tilt joint 126. This is consistent with the proposed construction where "handle portion" is the "portion of frame coupled to

the upper ends of the left and right upper tube support frame."



EX1047, Rolicki, Figs. 2-3 (Annotated)

344. Therefore, it is my opinion that Rolicki discloses or renders obvious limitation [12.0].

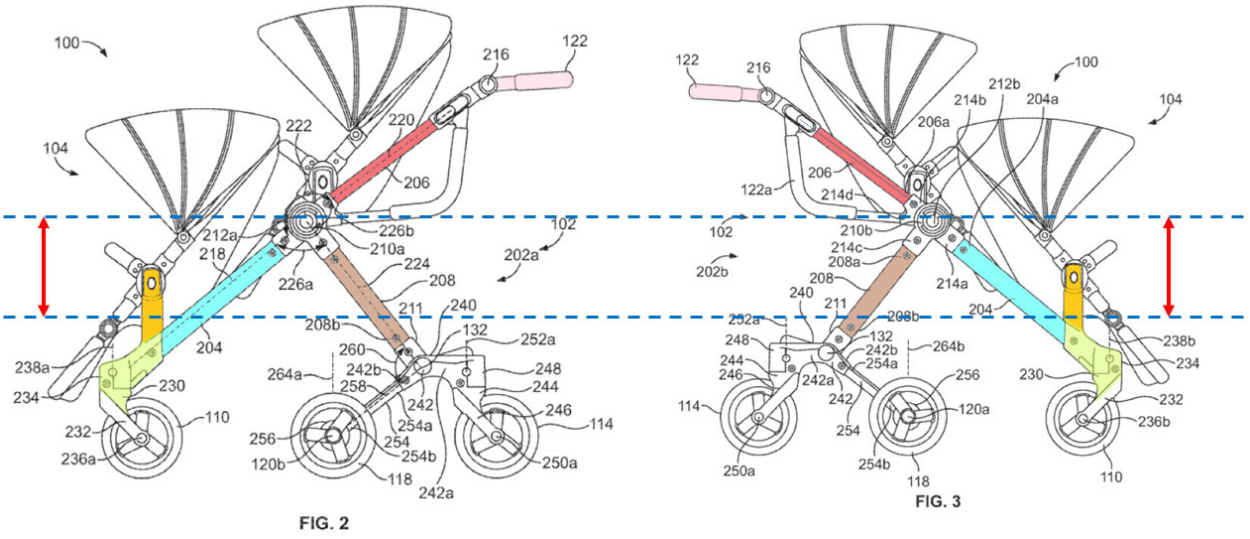
… ***[13.0] The stroller of claim 1, wherein the first seat attachment housing and the second seat attachment housing are part of the stroller frame.***

345. As I discussed in claim 1, Rolicki's first/second "housings" are disclosed as being "coupled or attached to an end" of the first/second "lower frame support[s] 204." (EX1047, Rolicki, 7:4-9; see also 7:4-24.) The "frame support[s]" are part of the stroller frame. A POSITA would therefore understand the first/second housings being coupled (and including the wheels) are part of the stroller frame. Without the housings, Rolicki would not have front wheels.

346. Therefore, it is my opinion that Rolicki discloses or renders obvious limitation [13.0].

… ***[14.0] The stroller of claim 3, wherein the second seat is vertically lower than the first seat.***

347. Rolicki visually illustrates the lower "second" seat is vertically lower than the upper "first" seat. I have drawn a line through where the buttocks of the infant would be positioned in both seats illustrating the second seat is vertically lower than the first seat. (EX1047, Rolicki, 3:49-64.)



EX1047, Rolicki, Fig. 2 (Annotated)

348. Therefore, it is my opinion that Rolicki discloses or renders obvious claim [14.0].

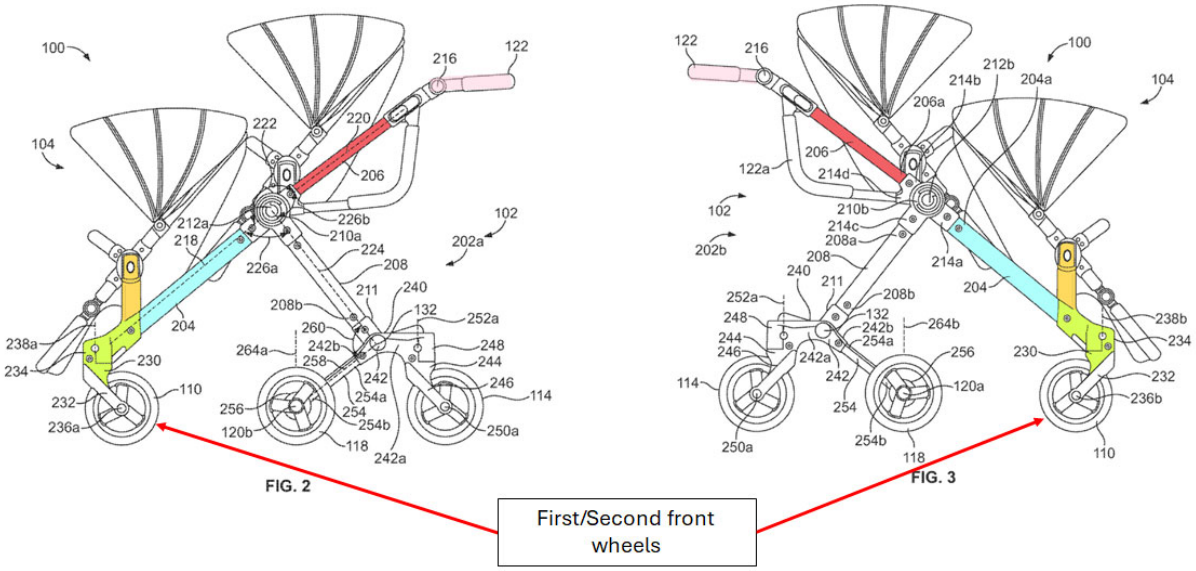
> … ***[15.0] The stroller of claim 1, wherein the first front wheel extends from the first seat attachment housing, and wherein the second front wheel extends from the second seat attachment housing.***

349. Rolicki teaches the first/second "housings" (green) include "wheel support[s] 232." The first/second front wheels are "rotatably journalled to the wheel support[s.]" So a POSITA would understand the first/second front wheels extend from the wheel supports, which are attached to the first/second housings. The first/second front wheels therefore extend from the first/second housings.

> Referring to FIGS. 2 and 3, to mount or attach the front wheels 110 of the illustrated example to respective ones of the side frame assemblies 202*a*, 202*b*, each of the front wheels 110 of the illustrated example includes a front wheel housing 230. For example, the front wheel housing 230 may be coupled or attached to an end of the lower frame support 204. **Each front wheel housing 230 of the illustrated example includes a fork or wheel support 232 rotatably mounted to a connector 234. Each front wheel 110 is rotatably journalled to the wheel support 232 to enable each of the front wheels 110 to rotate independently about a separate axis of rotation 236*a*, 236*b* (e.g., a substantially horizontal axis relative to a level ground surface on which the stroller 100 is positioned).** Additionally, to improve steering, each of the front wheels 110 of the illustrated example is able to rotate, swivel or pivot about a corresponding substantially vertical axis 238*a*, 238*b* that is substantially

perpendicular to the corresponding axis of rotation 236*a*, 236*b*. In the illustrated example, the front wheels 110 are able to pivot about the corresponding vertical axis 238*a*, 238*b* due to a pivot connector between the corresponding wheel support 232 and the corresponding connector 234.

(EX1047, Rolicki, 7:4-24.)



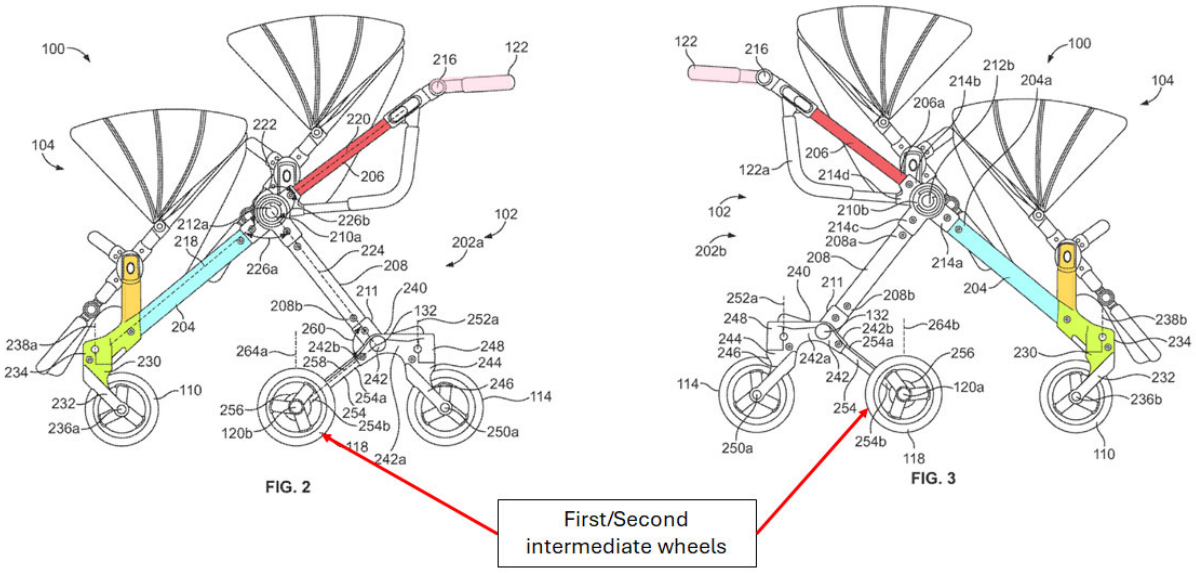
Ex. 1047, Rolicki, Figs. 2-3 (Annotated)

350. Therefore, it is my opinion that Rolicki discloses or renders obvious limitation [15.0].

… ***[16.0] The stroller of claim 1, wherein the plurality of wheels comprises at least one central wheel.***

351. Rolicki illustrates and discloses a "plurality of wheels" which include front, intermediate, and rear wheels. (EX1047, Rolicki 3:65-4:7.) Rolicki's "intermediate wheels 118" would be understood as "at least one central wheel" as

the wheels are centrally located between what I have identified as the front and rear wheels. (EX1047, Rolicki 4:15-19.)



EX1047, Rolicki, FIGS. 2-3 (Annotated)

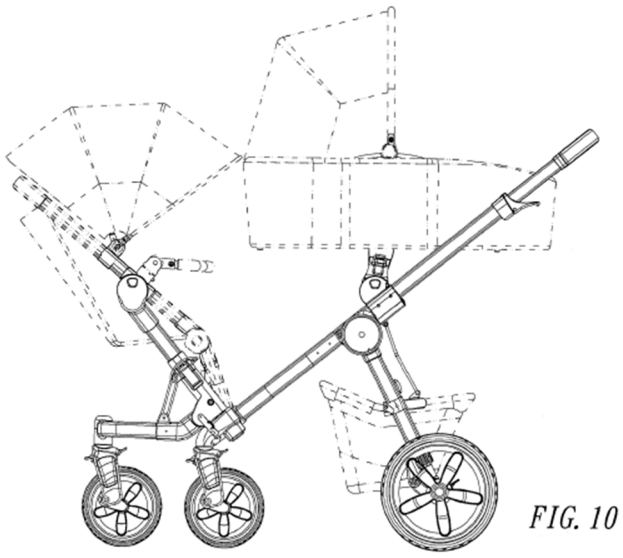
352. Therefore, it is my opinion that Rolicki discloses or renders obvious limitation [16.0].

B. Ground 2 – Claims 1–16 are obvious over U.S. Design Patent No. D593,459 ("Liao")

… ***[1.0] A stroller, comprising:***

353. While Liao does not expressly describe the various elements, the figures are detailed engineering CAD drawings that enable a POSITA to fully understand the design of Liao with limited textual description. Liao discloses, "[t]he ornamental design for a combination pushchair frame[.]" (EX1048, Liao, CLAIM.)

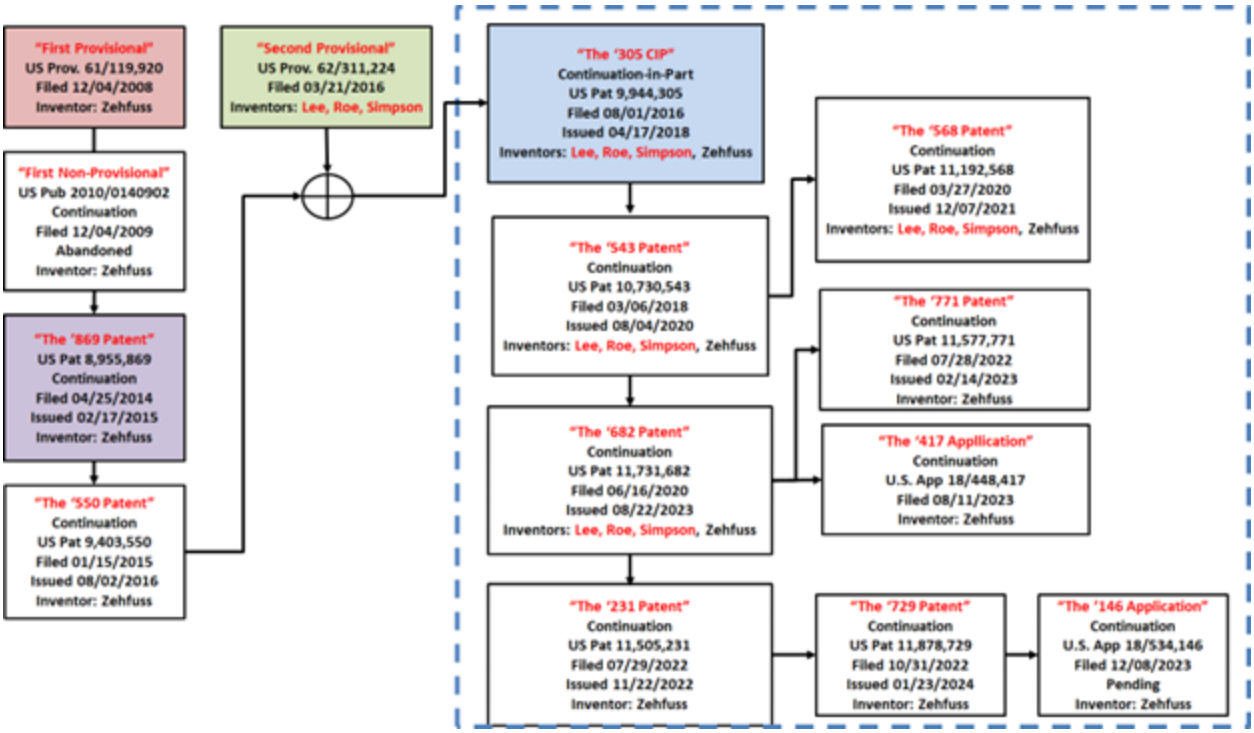
354. When filed, Mr. Liao stated Figure 10 illustrates a "perspective schematic view of a combination pushchair frame showing my design while the pushchair frame attaches a seat unit, a pram body and a basket for illustrative purposes[.]" (EX1052, Liao File History, 2.) A POSITA would understand from the drawing and description of the figure within the file history that Liao teaches "a stroller." Indeed, Figure 10 illustrates the recited pushchair being used with a pram and child seat intended for infants/children.



EX1048, Liao, Fig. 10

355. A POSITA would further have understood that a "pushchair" by definition is another term commonly used in reference to a stroller.

356. My reading of Liao as disclosing a "stroller" is confirmed by the Examiner (who I understand is considered a POSITA) during prosecution of U.S. App. No. 18/448, 417 (shown below).



Baby Jogger Patent Family

357. In the '417 Application, I understand the Examiner found "Liao discloses: A convertible stroller … configured for being converted from a single to a double stroller[.]"

14. **Claims 2-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao (US D593,459).**

[Claim 2] Regarding Claim 2, Liao discloses: A convertible stroller (See, e.g., Fig. 1-13) configured for being converted from a single stroller to a double stroller (See, e.g., Fig. 1-13), the stroller comprising: a stroller frame (See, e.g., Fig. 1-13) configured for being adjusted between a folded configuration and an unfolded configuration (See, e.g., Fig. 1-13), the stroller frame comprising: a handle portion (See, e.g., Fig. 1-13); a front wheel support portion (See, e.g., Fig. 1-13); and a back wheel support portion (See, e.g., Fig. 1-13); and at least one front wheel secured to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13); two rear wheels secured to the stroller frame's back wheel support portion (See, e.g., Fig. 1-13); a first seat (See, e.g., Fig. 1-13) removably attached to the stroller frame (See, e.g., Fig. 1-13); one or more seat attachment portions removably attached to the stroller frame (See, e.g., Fig. 1-13); and a second seat (See, e.g., Fig. 1-13) removably attached to the one or more seat attachment portions (See, e.g., Fig. 1-13) and positioned in front of the first seat (See, e.g., Fig. 1-13); wherein at least one of the first seat and the second seat is configured for being removably attached to the stroller frame in a forward-facing configuration and a backward-facing configuration (See, e.g., Fig. 11-12); and wherein the first seat and the second seat are positioned such that a center of gravity of the stroller is between the at least one front wheel and the plurality of back wheels (See, e.g., Fig. 1-13).

EX1024, '417 File History, 1203

358. I understand the Patent Owner did not dispute the Examiner's finding that Liao taught a convertible stroller. (EX1024, '417 File History, 1394.)

359. The Examiner's rejection and Patent Owner's response further confirm my opinion that a POSITA would have found Liao satisfies this limitation.

360. Therefore, it is my opinion that Liao discloses or renders obvious limitation [1.0].

… ***[1.1] a stroller frame comprising a handle portion and a front end portion;***

361. A POSITA reviewing the drawings would understand Liao discloses a

stroller frame. Moreover, in the text, Liao discloses, "[t]he ornamental design for a combination pushchair frame[.]" (EX1048, Liao, CLAIM.)

362. A POSITA would understand that at least Figure 1 of Liao discloses a stroller frame comprising a "handle portion" (pink) and a "front end portion" (dark blue). The "handle portion" I have highlighted what appears as two telescoping arms that a POSITA would understand likely within the tube framing. A POSITA would understand these telescoping arms allow for height adjustment of the "handle portion."

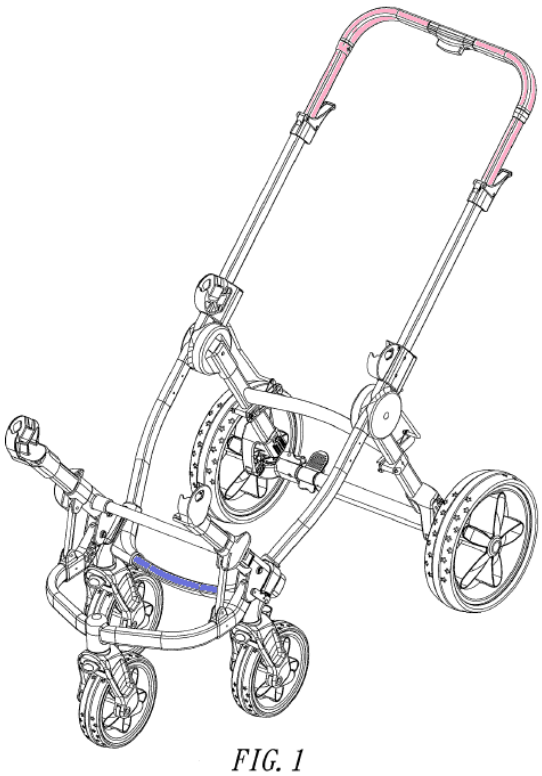


FIG. 1

EX1048, Liao, Fig. 1 (Annotated)

363. In the '417 Application, I understand the Examiner found Liao

discloses a "stroller frame comprising: *a handle portion* … [and] a *front wheel support portion*[.]" (EX1024, '417 File History, 1203.) The Examiner confirms my understanding that Liao teaches a handle portion. The Examiner's rejection also confirms my understanding that, given Liao teaches front wheel support portions, the stroller frame would include a "front end portion" as I have indicated above in dark blue.

14. **Claims 2-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao (US D593,459).**

[Claim 2] Regarding Claim 2, Liao discloses: A convertible stroller (See, e.g., Fig. 1-13) configured for being converted from a single stroller to a double stroller (See, e.g., Fig. 1-13), the stroller comprising: a stroller frame (See, e.g., Fig. 1-13) configured for being adjusted between a folded configuration and an unfolded configuration (See, e.g., Fig. 1-13), the stroller frame comprising: a handle portion (See, e.g., Fig. 1-13); a front wheel support portion (See, e.g., Fig. 1-13); and a back wheel support portion (See, e.g., Fig. 1-13); and at least one front wheel secured to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13); two rear wheels secured to the stroller frame's back wheel support portion (See, e.g., Fig. 1-13); a first seat (See, e.g., Fig. 1-13) removably attached to the stroller frame (See, e.g., Fig. 1-13); one or more seat attachment portions removably attached to the stroller frame (See, e.g., Fig. 1-13); and a second seat (See, e.g., Fig. 1-13) removably attached to the one or more seat attachment portions (See, e.g., Fig. 1-13) and positioned in front of the first seat (See, e.g., Fig. 1-13); wherein at least one of the first seat and the second seat is configured for being removably attached to the stroller frame in a forward-facing configuration and a backward-facing configuration (See, e.g., Fig. 11-12); and wherein the first seat and the second seat are positioned such that a center of gravity of the stroller is between the at least one front wheel and the plurality of back wheels (See, e.g., Fig. 1-13).

EX1024, '417 File History, 1203–1204

364. Therefore, it is my opinion that Liao discloses or renders obvious limitation [1.1].

… ***[1.2] a plurality of wheels comprising a plurality of back wheels;***

365. Liao discloses a plurality of wheels including a pair ("plurality") of back wheels.

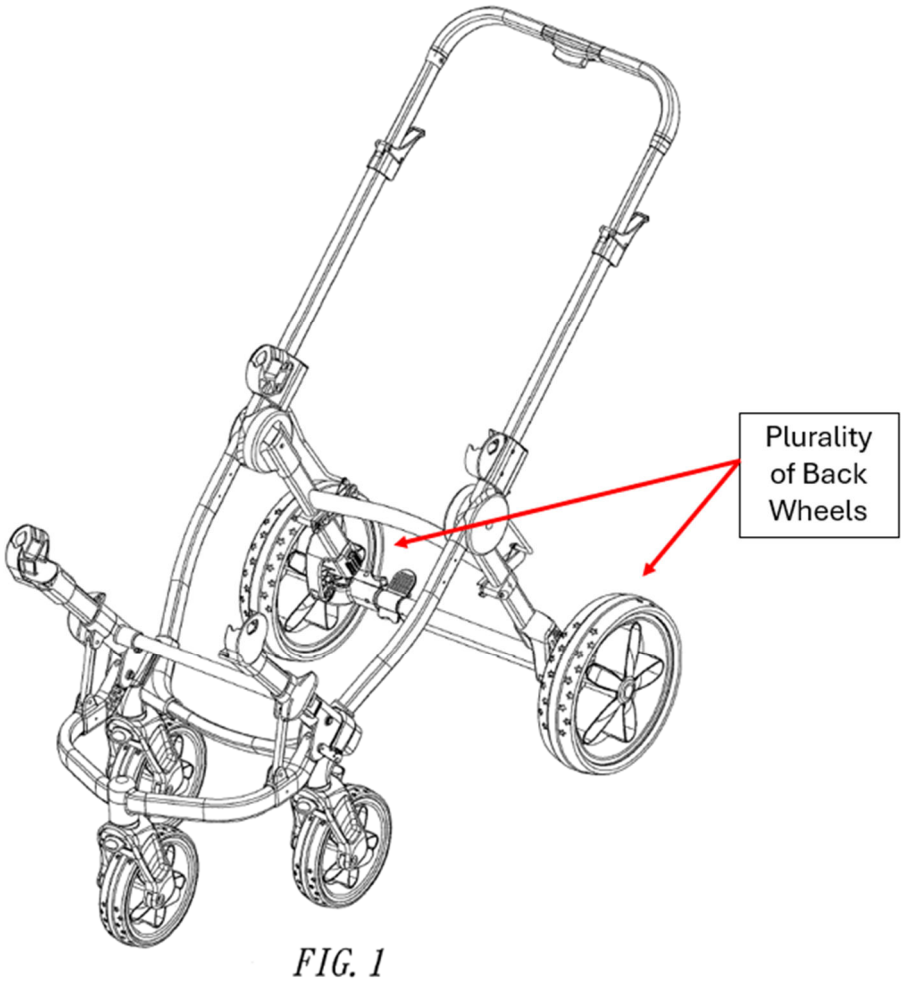


FIG. 1

EX1048, Liao, Fig. 1 (Annotated)

366. My understanding is confirmed by the Examiner's determination that Liao teaches a stroller with "at least one front wheel" and "two rear wheels[.]"

(EX1024, ’417 File History, 1203.) It is my understanding the Patent Owner did not attempt to reject the Examiner’s findings that Liao teaches these limitations. (EX1024, ’417 File History, 1394.)

367. Therefore, it is my opinion that Liao discloses or renders obvious limitation [1.2].

> … ***[1.3] a first seat coupled to the stroller frame at a first vertical position of the stroller frame, wherein the first seat is disposed closer to the handle portion than the front end portion of the stroller frame;***

368. Liao discloses attaching an upper seat (“first seat”) to the upper frames. Liao shows two coupling mechanisms (one on each upper support frame) to attach the upper seat to the stroller. (EX1048, Liao, Fig. 1.)

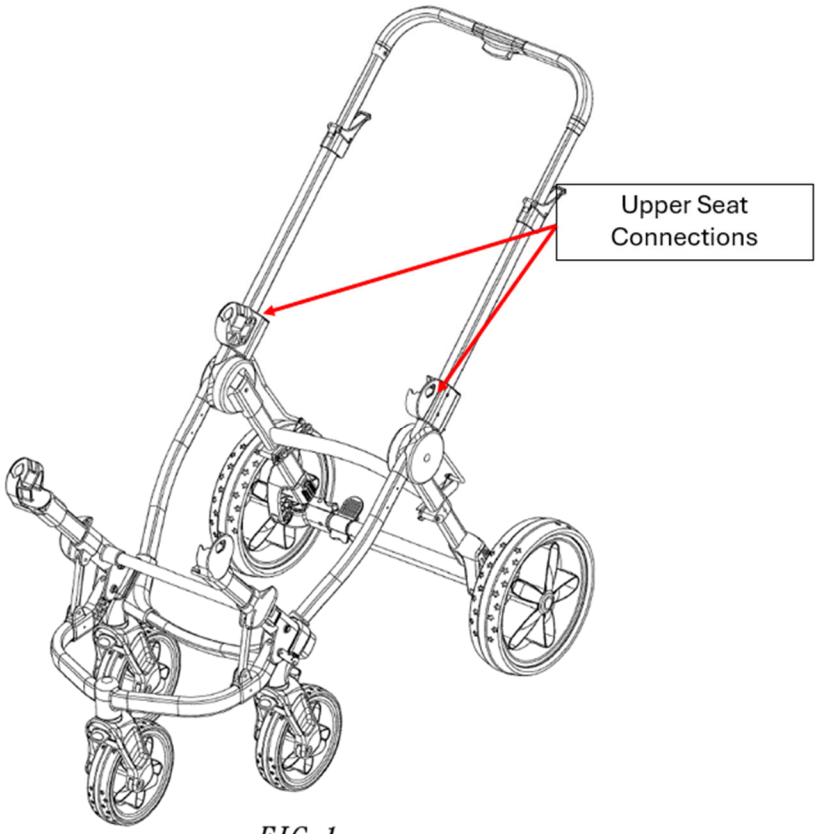
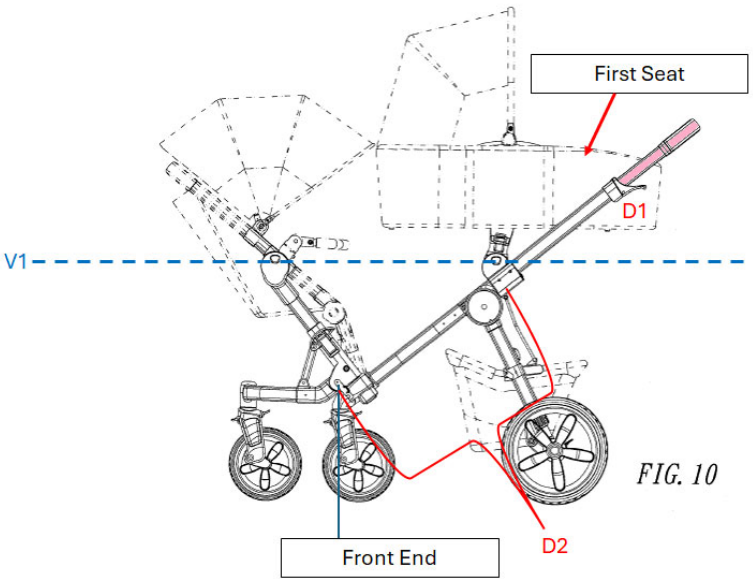


FIG. 1

EX1048, Liao, Fig. 1 (Annotated)

369. Figure 10 shows the upper seat ("first seat") coupled to the stroller frame via the upper connections at a first vertical position (V1). As shown, where the baby would lay in the bassinet is closer to the handle portion (pink) than the front end portion I identified in limitation [1.1]. While Liao teaches a stroller that may employ a varying types of stroller seating arrangements, the foot portion of the bassinet is right next to the "handle portion" clearly illustrating a first seat that is disposed closer to the handle portion than the front end portion. I have even shown the distance of the bassinet's first end is closer to the handle portion (shown

by D1) than the bassinet's second end is to the front end portion (shown by D2). I have found the same to be true with the other seat configurations disclosed by Liao.



EX1048, Liao, Fig. 10 (Annotated)

370. During prosecution of the related '417 Application, the Examiner confirmed my understanding that Liao teaches (1) a "first seat" attached to Liao's stroller frame; (2) the first seat is positioned adjacent to the handle portion (claim 5); and (3) the first seat is positioned at a first vertical position along the stroller frame (claim 15). (EX1024, '417 File History, 1203–1205.) The Examiner's findings further support my opinion regarding what a POSITA would understand Liao teaches. Again, the Patent Owner did not rebut the Examiner that Liao satisfies these limitations. (EX1024, '417 File History, 1394.)

14. **Claims 2-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao (US D593,459).**

[Claim 2] Regarding Claim 2, Liao discloses: A convertible stroller (See, e.g., Fig. 1-13) configured for being converted from a single stroller to a double stroller (See, e.g., Fig. 1-13), the stroller comprising: a stroller frame (See, e.g., Fig. 1-13) configured for being adjusted between a folded configuration and an unfolded configuration (See, e.g., Fig. 1-13), the stroller frame comprising: a handle portion (See, e.g., Fig. 1-13); a front wheel support portion (See, e.g., Fig. 1-13); and a back wheel support portion (See, e.g., Fig. 1-13); and at least one front wheel secured to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13); two rear wheels secured to the stroller frame's back wheel support portion (See, e.g., Fig. 1-13); a first seat (See, e.g., Fig. 1-13) removably attached to the stroller frame (See, e.g., Fig. 1-13); one or more seat attachment portions removably attached to the stroller frame (See, e.g., Fig. 1-13); and a second seat (See, e.g., Fig. 1-13) removably attached to the one or more seat attachment portions (See, e.g., Fig. 1-13) and positioned in front of the first seat (See, e.g., Fig. 1-13); wherein at least one of the first seat and the second seat is configured for being removably attached to the stroller frame in a forward-facing configuration and a backward-facing configuration (See, e.g., Fig. 11-12); and wherein the first seat and the second seat are positioned such that a center of gravity of the stroller is between the at least one front wheel and the plurality of back wheels (See, e.g., Fig. 1-13).

[Claim 4] Regarding Claim 4, Liao discloses: wherein the first seat is positioned substantially over the two rear wheels (See, e.g., Fig. 11-12).

[Claim 5] Regarding Claim 5, Liao discloses: wherein the first seat is positioned adjacent to the stroller frame's handle portion (See, e.g., Fig. 11-12).

[Claim 11] Regarding Claim 11, Liao discloses: wherein the one or more first seat attachment portions are removably attached to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13), and wherein the one or more second seat attachment portions are connected to the stroller frame adjacent to the frame's handle portion (See, e.g., Fig. 1-13).

[Claim 15] Regarding Claim 15, Liao discloses: wherein the first seat is configured for being removably attached to the stroller frame at a first vertical position (See, e.g., Fig. 1-13), and the second seat is configured for being removably attached to the one or more seat attachment portions at a second vertical position that is below the first vertical position (See, e.g., Fig. 1-13).

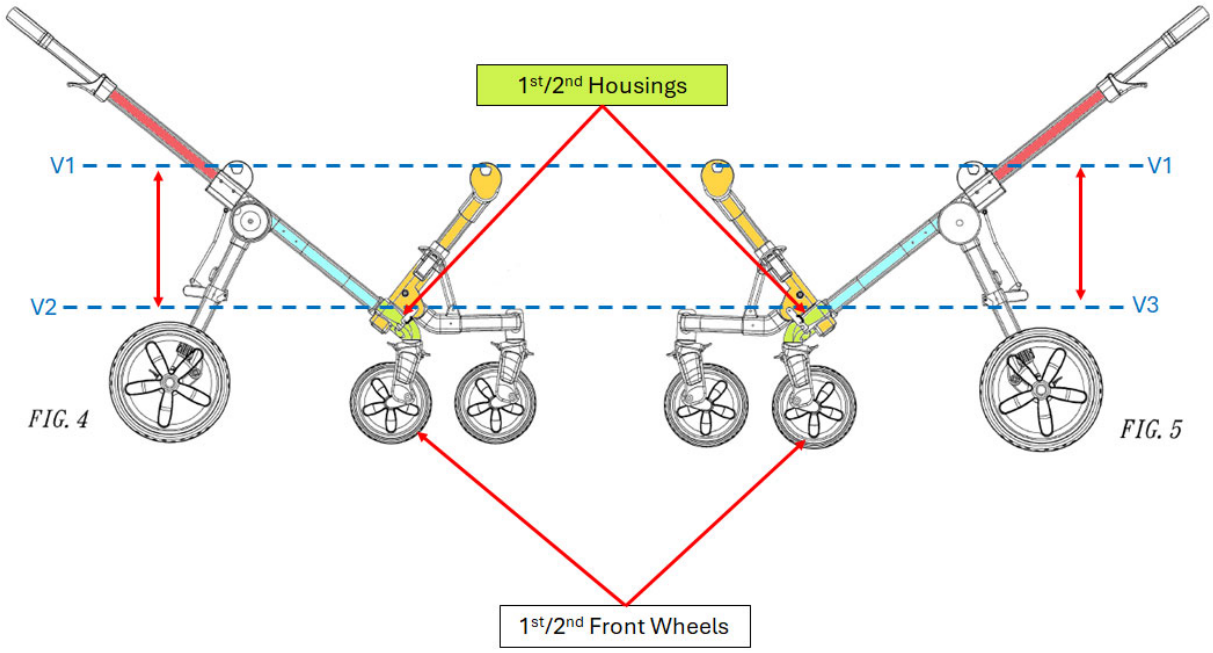
EX1024, '417 File History, 1203-1205

371. Therefore, it is my opinion that Liao discloses or renders obvious limitation [1.3].

> … ***[1.4] a first seat attachment housing coupled to the stroller frame at a second vertical position of the stroller frame that is below the first vertical position, wherein a first front wheel and a second front wheel extend from the front end of the stroller;***
>
> … ***[1.5] a second seat attachment housing coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position, wherein the third vertical position is closer to the front end portion than the handle portion;***

372. Liao illustrates two components which a POSITA would understand as being the first/second "seat attachment housing[s]" (green) – which are the right

and left side "housings" shown below. As I explain in greater detail in other claim limitations, the first/second "seat attachment housing" is used to couple a removable second-seat subassembly to the stroller frame. The housing (green) of Liao provides an opening that a POSITA would have considered as being the "seat attachment housing" as it is a structural element that allows insertion and surrounds adapter arms of the removable second-seat subassembly. As annotated below, the vertical position (V2/V3) of where the housings are coupled to the lower frame is below the first vertical position (V1).



EX1048, Liao, Figs. 4-5 (Annotated)

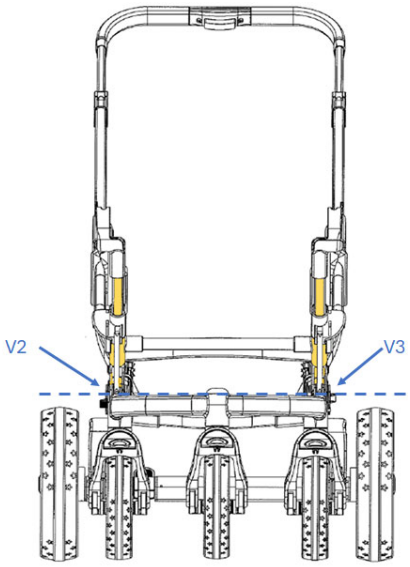
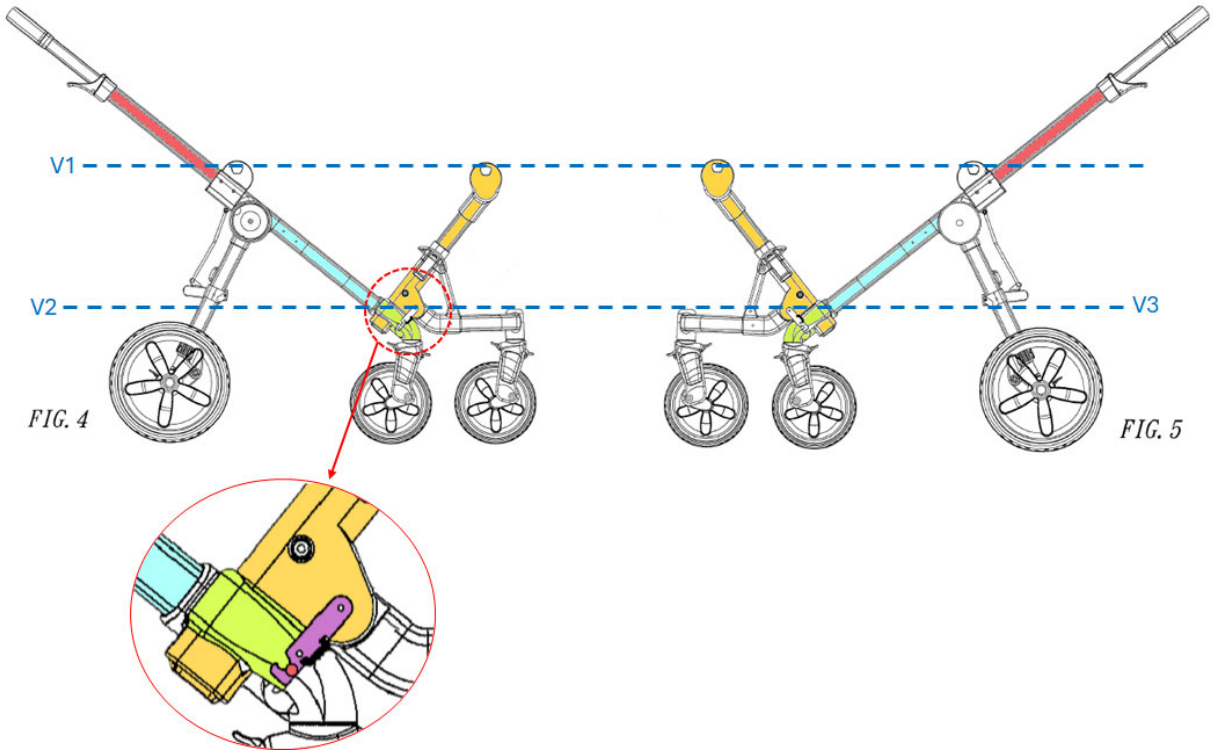


FIG. 2

EX1048, Liao, Fig. 2

373. Given the detail of the drawings provided, a POSITA could enlarge the images as I have done with Figure 1 below. The details of the drawings clearly illustrate the right/left lower support frame members (blue) are inserted into and would be understood as being coupled to the first/second housings (green). Likewise, the front-end cross frame member (dark blue) is also inserted into and coupled to the housings (green) in the same manner. A POSITA would have understood the housings as being coupled to these frame members (i.e., lower support frame members and front-end cross frame member) using known techniques. For example, the housings could be coupled to the frame members using mechanical fasteners (e.g., rivets, pins or bolts); press-fitting; or using adhesive bonding or glue. But the type of coupling mechanism used would not

alter the fact that a POSITA would understand the housings to have been coupled to the frame members.

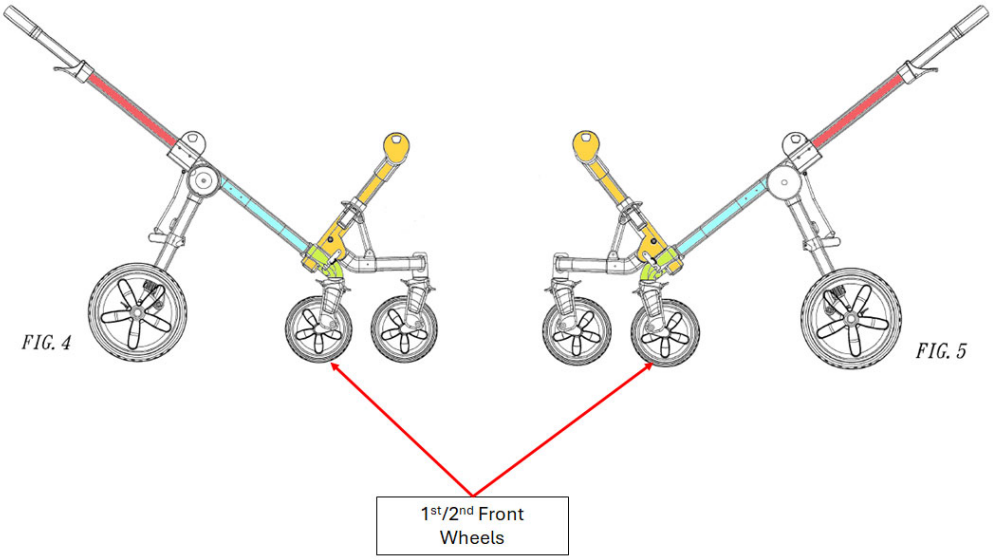


EX1048, Liao, Fig. 4-5 (Annotated)

374. I have shown above in ¶372 that the vertical position (V2/V3) of where the housings are coupled to the lower frame is below the first vertical position (V1). indicated in the figure above where the "second vertical position" of the first/second housings would be coupled to the lower frame support member (blue). As I have shown, this "second vertical position" is lower than the "first vertical position."

375. As indicated above in Figure 1 and shown below, Liao also teaches

first/second front wheels that are attached at the front end and extend downward from the stroller frame. A POSITA would understand the two front wheels as extending from the front end of the stroller.



EX1048, Liao, Figs. 4-5 (Annotated)

376. The Examiner in the '417 Application again confirmed what a POSITA would understand Liao as teaching. The Examiner found "Liao discloses: … the at least one front wheel comprises two front wheels secured to the stroller frame's front wheel support portion[.]" (EX1024,'417 File History, 1205, claim 13.) The Examiner therefore confirms my opinion that Liao teaches a first/second "front wheel." The Examiner also found Liao teaches "one or more seat attachment portions removably attached to the stroller frame[.]" (EX1024, '417 File History, 1203, claim 2.) As I explain below, the "seat attachment portions" would be the first/second "adapters." Accordingly, the Examiner in this

action found Liao's "adapters" or "attachment portions" are removably coupled to the frame.

377. However, I understand the Patent Owner modified the pending claims of the '417 Application and argued Liao teaches a "seat attachment portion" that directly attaches to the stroller frame. The Patent Owner then argued that Liao teaches a "seat attachment portion … coupled to a *separate discrete component* that is coupled to the frontmost front wheels." Patent Owner's amendment and argument confirm my opinion that Liao teaches first/second seat attachment housings (*i.e.*, a separate discrete component) that indirectly connects the first/second seat attachment adapters to the stroller frame. This separate component or "housing" is what I highlighted in green above.

Claim 2 is amended to clarify that "at least one front wheel [is] secured directly to the front wheel support portion," and "a first seat attachment portion [is] removably attached directly to the stroller frame." Liao does not teach or suggest at least these elements of claim 2.

In particular, with reference to representative FIG. 5 of Liao (reproduced below), the alleged seat attachment portion of Liao is not attached directly to the stroller frame. If the handle portion of Liao is considered the stroller frame, to which the rearmost of the front wheels is coupled, the alleged seat attachment portion is not directly attached to the stroller frame. Instead, the alleged seat attachment portion appears to be coupled to a separate discrete component that is coupled to the frontmost front wheels.

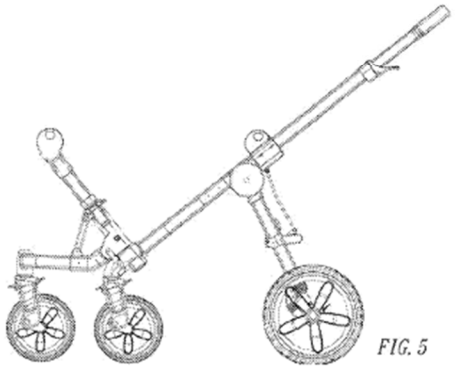


FIG. 5

As a result, Liao does not teach or fairly suggest each and every element of claim 2. Reconsideration and allowance of claims 2-16 is therefore respectfully requested.

EX1024, '417 File History, 1394

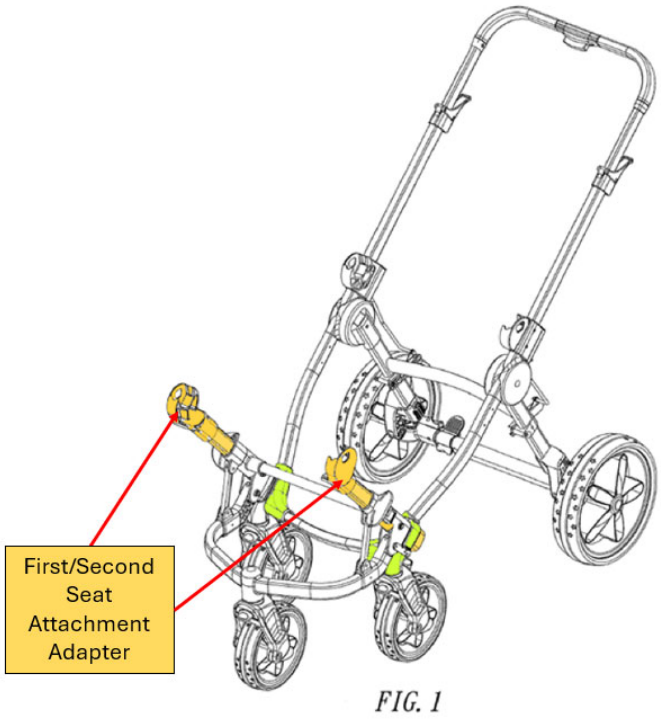
378. Therefore, it is my opinion that Liao discloses or renders obvious limitations [1.4]–[1.5].

… ***[1.6] a first seat attachment adapter spaced from and coupled to the first seat attachment housing by a first attachment frame member; and***

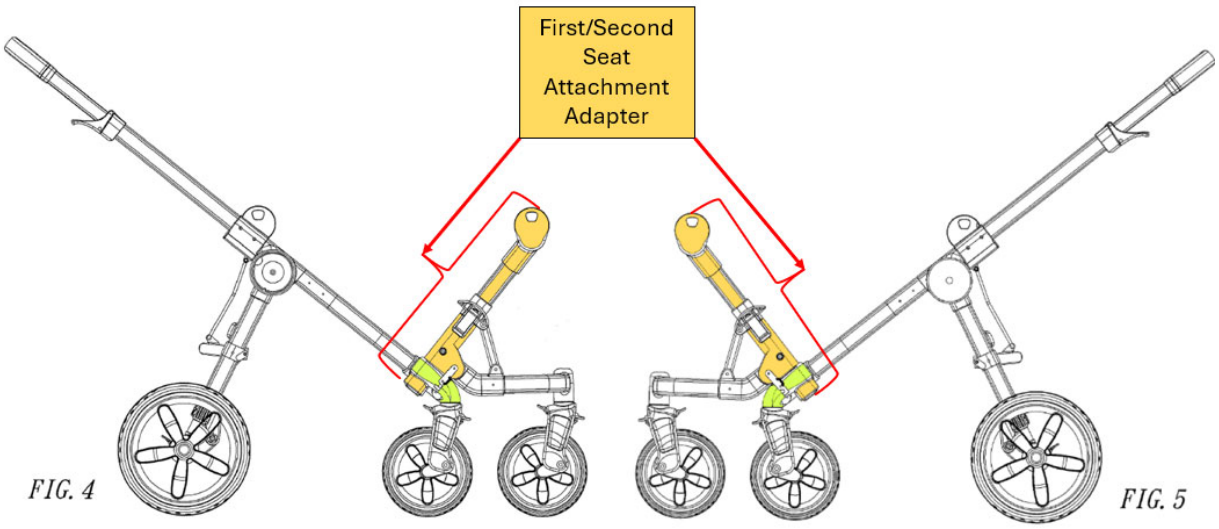
… ***[1.7] a second seat attachment adapter spaced from and coupled to the second seat attachment housing by a second attachment frame member;***

379. A POSITA would have understood Liao teaches a second-seat subassembly. Liao discloses a first/second "seat attachment adapter" (gold), each

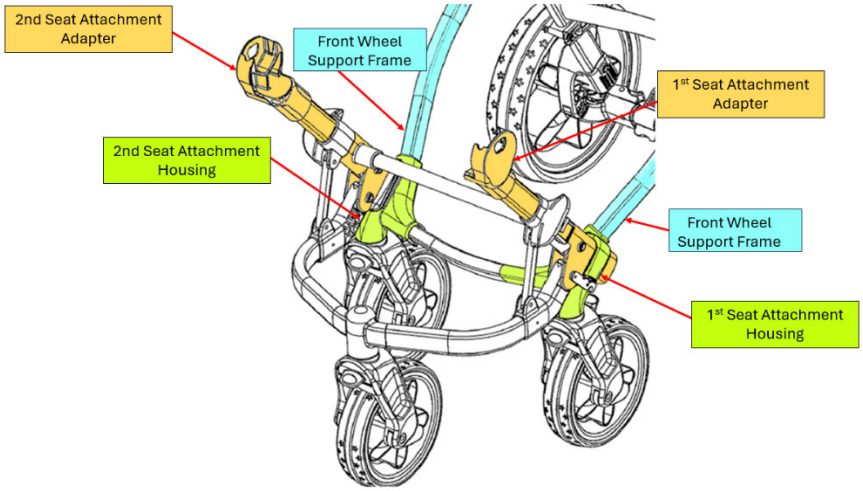
coupled to a corresponding one of the housings (green). The detailed drawings of Liao show the lower ends of the "adapters" (gold) received through openings of the housings (green) and secured with latches. Thus, the housings (green) of Liao disclose the claimed "first seat attachment housing" and the "second seat attachment housing" as they are housings used to attach the seats.



EX1048, Liao, Fig. 1 (Annotated)



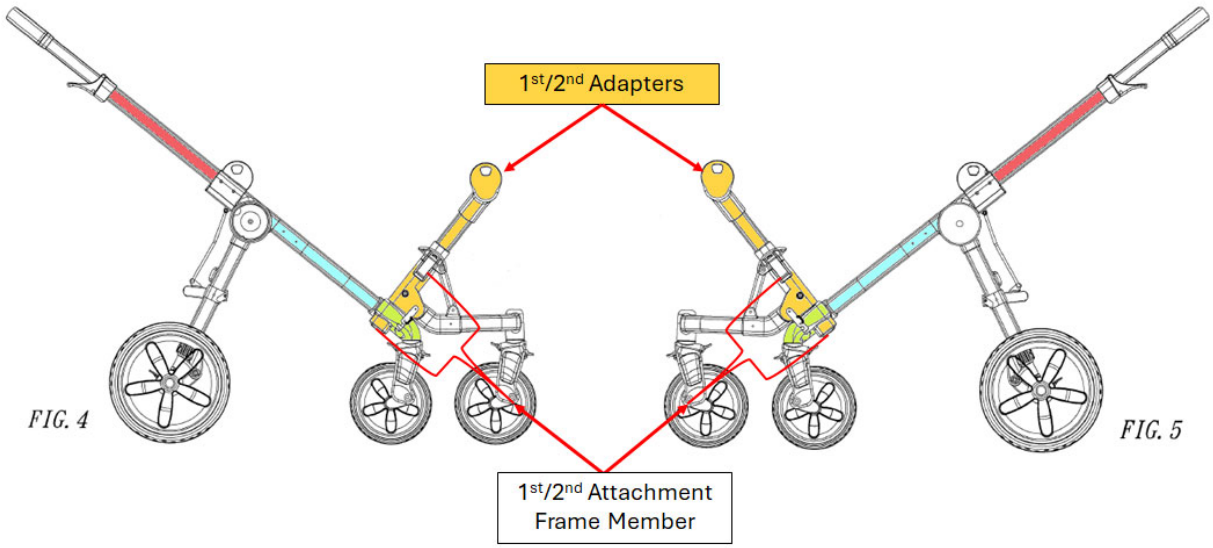
EX1048, Liao, Figs. 4-5 (Annotated)



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

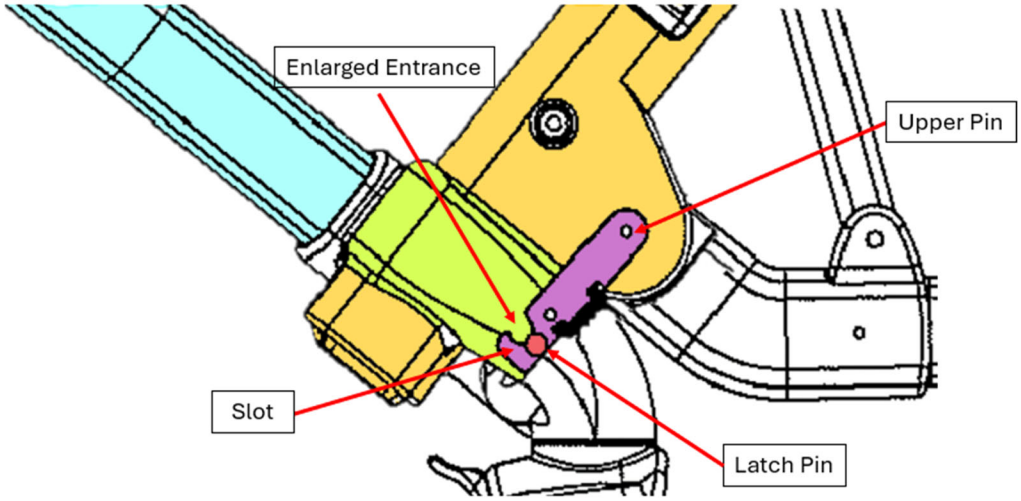
380. One or more portions of the adapter below would also be understood as being the "attachment frame member." Specifically, a POSITA would understand the first/second adapters are inserted into the first/second housings. To be inserted, a portion of the adapter (i.e., the "frame member") would need to be "spaced from" but still allow the first/second adapters to be coupled to the

first/second housings. While I have indicated a given region of the adapter, a POSITA would understand the "attachment frame member" may vary from what I have annotated.



EX1048, Liao, Figs. 4-5 (Annotated)

381. Once the "adapters" (gold) are inserted, they are coupled to the "housings" (green) using a pair of latches (purple). I show just one side (Figure 4) below, but the latch is visibly present on the opposite side of Liao's stroller (Figure 5). Each latch (purple) is depicted as being pivotally coupled to the associated adapter (gold) by an upper pin connection at its upper end. The lower end has an open slot configured to receive a latch pin (red) connected to and raised from the housing (green). The latch couples the adapters to the housings when the latch pin is received in the slot and allows for removal of the adapters when the latch is rotated away from the latch pin.



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

382. My opinion is further confirmed by the Examiner's findings in a related family member application. Specifically, during prosecution of the '568 Patent, the Examiner found Liao teaches a "stroller seat design to provide seat attachment adapters coupled to the front wheel support frame of the stroller." (EX1019, '568 File History, 559.)

383. Likewise, in the '417 Application, the Examiner found "Liao discloses: … one or more seat attachment portions are removably attached to the stroller frame's front wheel support portion[.]" (EX1024, '417 File History, 1204, claim 7.) The Examiner also found "Liao discloses: … one or more first seat attachment portions are removably attached to the stroller frame's front wheel support portion[.]" (EX1024, '417 File History, 1204, claim 7.) A POSITA would have understood these "seat attachment portions" as being the recited first/second "adapters," as the Examiner similarly found during prosecution of the '568 Patent.

The Examiner's finding that the adapters (attachment portions) are likewise removable confirms my understanding that Liao teaches attachment frame members that are spaced from and coupled to the housings. The Patent Owner has never disputed the Examiner's findings that Liao teaches this limitation.

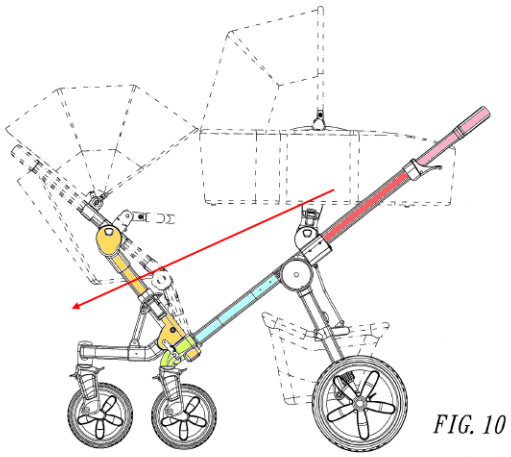
> However, Liao teaches a similar stroller with seat attachment (See, e.g., Liao: Fig.1-13) wherein a first seat attachment adapter is coupled to the first front wheel support frame (See, e.g., Liao: Fig.1-13), and wherein a second seat attachment adapter is coupled to the second front wheel support frame (See, e.g., Liao: Fig.1-13).
>
> Liao teaches that it is well known in the art of stroller seat design to provide seat attachment adapters coupled to the front wheel support frame of the stroller. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the system taught by Cheng modified with the seat attachment adapters coupled to the front wheel support frame such as taught by Liao, for the purpose of conveniently and beneficially allowing a user to mount the front stroller seat at a position that is lower to the ground level thereby not requiring a parent to hoist the heavy baby seat up as high off the ground when mounting/dismounting from the stroller. Moreover, the modification is obvious as no more than the use of familiar elements according to known methods in a manner that achieves predictable results. (See, e.g., KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398,416 (2007)).

EX1019, '568 File History, 559

384. Therefore, it is my opinion that Liao discloses or renders obvious limitations [1.6]–[1.7].

… ***[1.8] wherein the first seat and the second seat, when connected to the frame, are arranged in an inline descending configuration along the stroller frame.***

385. Liao discloses an upper seat ("first seat") and a lower seat ("second seat") that are visibly arranged in an inline descending configuration along the stroller frame, as shown by the green line which I have generally drawn through the portions of the seat where the infant's buttocks would be generally located. But no matter how I draw the line, Liao teaches a POSITA an inline and descending configuration of both seats along the stroller frame.



EX1048, Liao, Fig. 10 (Annotated)

386. My opinion is further confirmed by the Examiner's findings in a related family member application. During prosecution of the '417 Application, the Examiner found "Liao discloses: wherein the first seat is configured for being removably attached to the stroller frame at a first vertical position …, and the

second seat is configured for being removably attached to the one or more seat attachment portions at a second vertical position that is below the first vertical position[.]" (EX1024, '417 File History, 1205, claim 15.) Again, the Patent Owner never disputed this finding, also confirming my opinion.

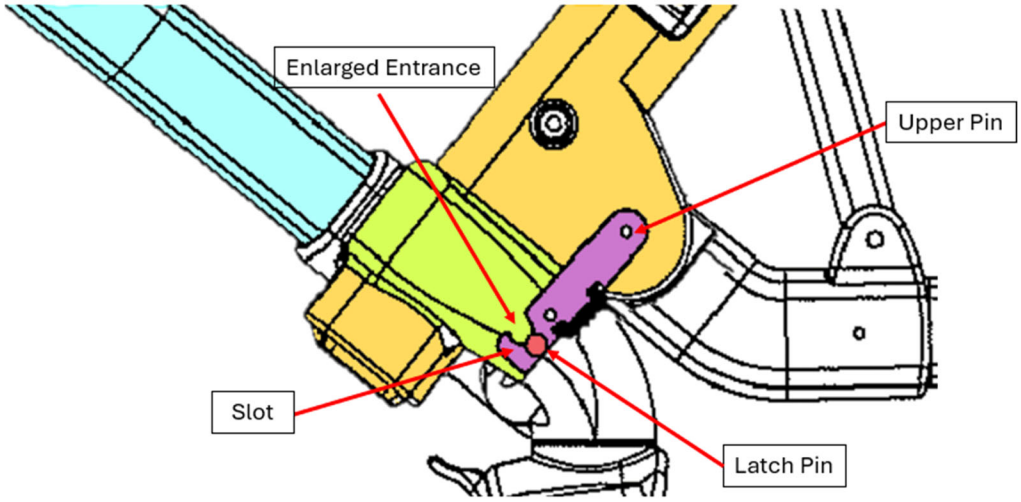
387. Therefore, it is my opinion that Liao discloses or renders obvious limitation [1.8].

[2.0] The stroller of claim 1, further comprising a first connector portion and a second connector portion, wherein the first seat attachment adapter is removably coupled to the first seat attachment housing via the first connector portion, and wherein the second seat attachment adapter is removably coupled to the second seat attachment housing via the second connector portion.

388. As discussed in limitations [1.6]–[1.7], Liao teaches a first/second "seat attachment adapter" which is removably coupled to the first/second "seat attachment housing." Again, my understanding is confirmed by the Examiner's findings during prosecution of the '568 Patent and the '417 Application. (EX1019, 559; EX1024, 1203 and 1204, claims 2 and 11.)

389. As I also explained in limitations [1.6]–[1.7], once the "adapters" (gold) are inserted, they are coupled to the "housings" (green) using a pair of latches (purple). I show just one side (Figure 4) below, but the latch is visibly present on the opposite side of Liao's stroller (Figure 5). The latch (purple) is

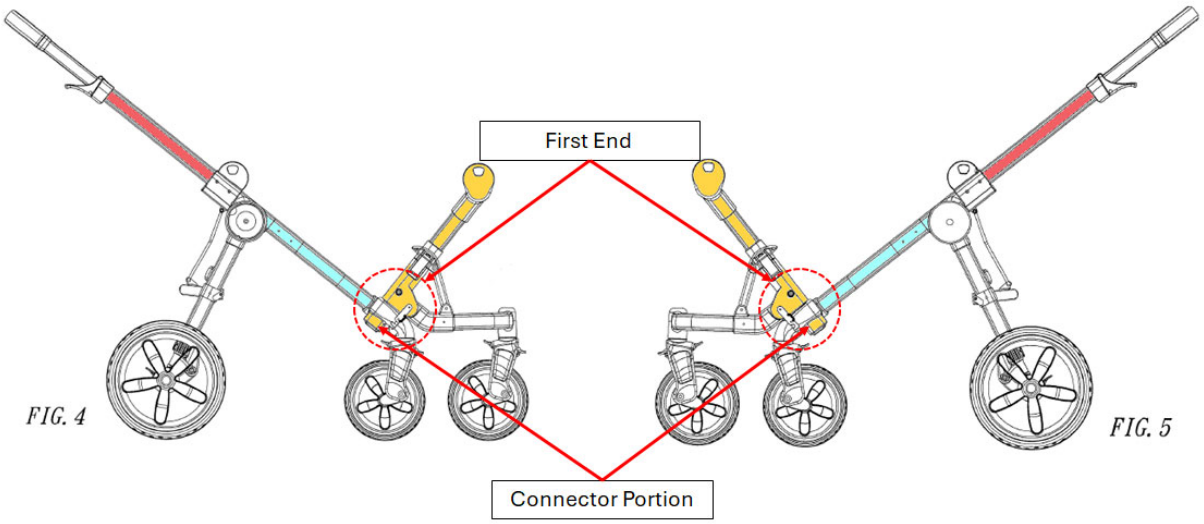
depicted as being pivotally coupled to the associated adapter (gold) by an upper pin connection at its upper end. The lower end has an open slot configured to receive a latch pin (red) connected to and raised from the housing (green). A POSITA would have understood the right-side and left-side latches, pins, or both as being a first/second "connector portion." A POSITA would understand the latch ("connector portion") couples the adapters to the housings when the latch pin is received in the slot and allows for removal of the adapters when the latch is rotated away from the latch pin.



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

390. Alternatively, a POSITA would have understood a section or portion of the adapters received through the housings to be "connector portions," as these are the portions of the adapters that connect the adapters to the housings. A POSITA would understand the adapter would need to extend through the housing to secure it to the stroller frame. The overlap helps provide rigidity and stability to

the connection.



EX1048, Liao, Figs. 4-5 (Annotated)

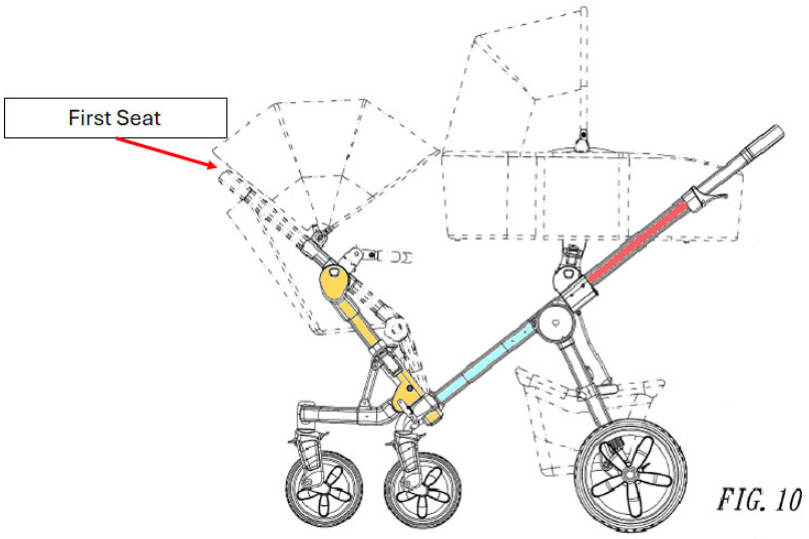
391. Therefore, it is my opinion that Liao discloses or renders obvious claim limitation [2.0].

> … ***[3.0] The stroller of claim 2, further comprising a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter.***

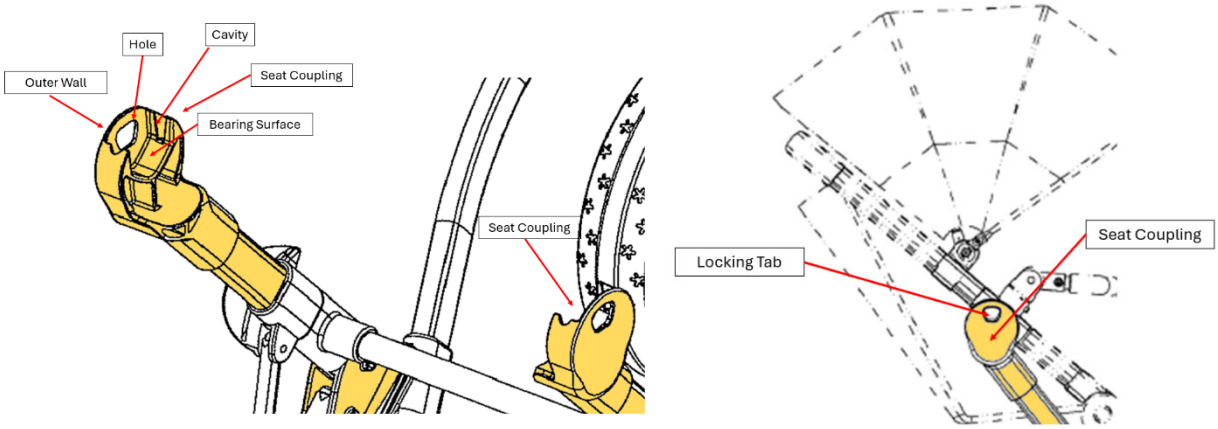
392. Liao discloses a lower seat ("second seat") coupled to the upper ends of the previously identified first/second "seat attachment adapters" (gold). Again, a POSITA would understand Liao's figures are detailed engineering drawings that clearly depict the mechanical components without requiring textual explanation.

393. The seat couplings, shown in magnified views of Figures 1 and 10, inform a POSITA Liao's adapter has an outer wall, an open top, no inner wall, and a cavity. A POSITA would understand the cavity receives and supports a portion

of the second seat on a bearing surface at the bottom. The outer wall includes a hole that engages a resilient locking tab or button on the second seat. As the seat is inserted, the tab deflects and snaps into the hole, securing the seat. The seat can be removed by pressing the tab through the hole, releasing it for upward removal through the open top. Given Liao has couplings on both the right and left side (see Figures 4 and 5), Liao discloses a first/second "seat attachment adapter" allowing the "second seat" to be "removably coupled."



EX1048, Liao, Fig. 10 (Annotated)



EX1048, Liao, Figs. 1 and 10 (Cropped and Annotated)

394. Liao's as-filed specification (later amended[19]) stated, "the pushchair frame attaches a seat unit," and "the pushchair frame attaches two seat units … ." (EX1052, U.S. App. No. 29/324,044 File History, 1-2.) Moreover, the seat units are not a part of the claimed design and showing them in different seat configurations illustrates they are releasably coupled.

395. Liao further illustrates multiple seating configurations in Figures 8 through 13. In order to place the stroller in these various configurations, the seats must be removable so that different types of seats may be swapped in and out as depicted. For example, Figure 10 shows a rear-facing stroller seat in the lower seat position, whereas Figure 11 shows a front-facing stroller seat in the lower seat position. In order to arrive at these positions, the stroller seat must be removably

[19] I have been informed by Counsel that the specification was amended by an Examiner's Amendment to improve clarity of the figure descriptions.

connected so that it can be flipped around.

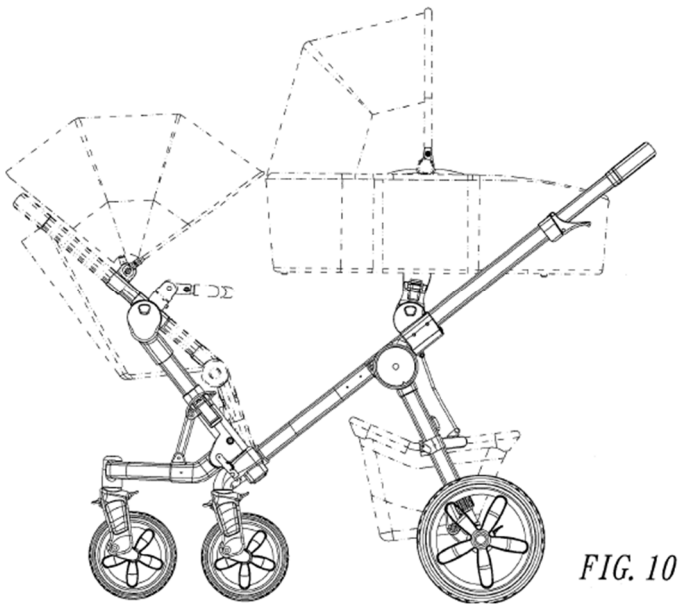


FIG. 10

EX1048, Liao, Fig. 10

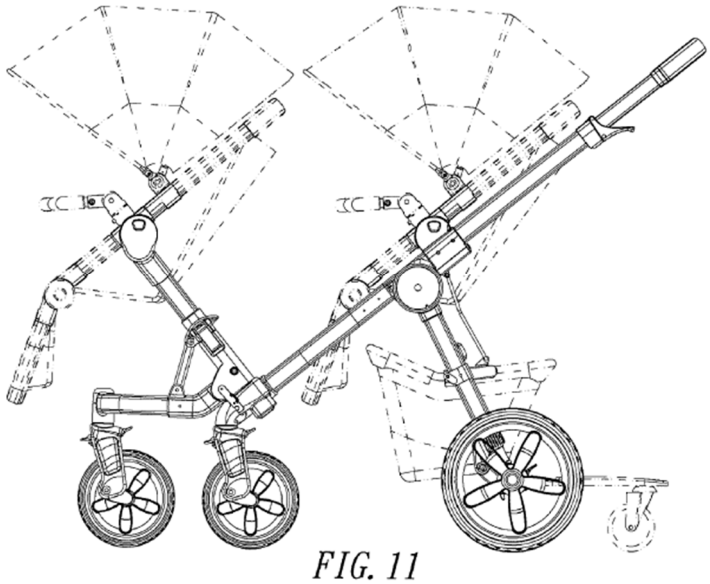


FIG. 11

EX1048, Liao, Fig. 11

396. Additionally, the U.S. Patent and Trademark Office confirms my opinion that Liao's seats are removable. During prosecution of the '417

Application, the Examiner found that Liao discloses "a second seat … removably attached to the one or more seat attachment portions [i.e., adapters.]" (EX1024, '417 File History, 1203, claim 2.) The Examiner also determined "Liao discloses: … the one or more seat attachment portions each comprise a seat connector configured for connecting to the second seat[.]" (EX1024, '417 File History, 1204, claim 9.) These and other claims rejected by the Examiner further confirm my opinion that Liao discloses to a POSITA the limitations claimed.

14. **Claims 2-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao (US D593,459).**

[Claim 2] Regarding Claim 2, Liao discloses: A convertible stroller (See, e.g., Fig. 1-13) configured for being converted from a single stroller to a double stroller (See, e.g., Fig. 1-13), the stroller comprising: a stroller frame (See, e.g., Fig. 1-13) configured for being adjusted between a folded configuration and an unfolded configuration (See, e.g., Fig. 1-13), the stroller frame comprising: a handle portion (See, e.g., Fig. 1-13); a front wheel support portion (See, e.g., Fig. 1-13); and a back wheel support portion (See, e.g., Fig. 1-13); and at least one front wheel secured to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13); two rear wheels secured to the stroller frame's back wheel support portion (See, e.g., Fig. 1-13); a first seat (See, e.g., Fig. 1-13) removably attached to the stroller frame (See, e.g., Fig. 1-13); one or more seat attachment portions removably attached to the stroller frame (See, e.g., Fig. 1-13); and a second seat (See, e.g., Fig. 1-13) removably attached to the one or more seat attachment portions (See, e.g., Fig. 1-13) and positioned in front of the first seat (See, e.g., Fig. 1-13); wherein at least one of the first seat and the second seat is configured for being removably attached to the stroller frame in a forward-facing configuration and a backward-facing configuration (See, e.g., Fig. 11-12); and wherein the first seat and the second seat are positioned such that a center of gravity of the stroller is between the at least one front wheel and the plurality of back wheels (See, e.g., Fig. 1-13).

[Claim 7] Regarding Claim 7, Liao discloses: wherein the one or more seat attachment portions are removably attached to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13).

[Claim 8] Regarding Claim 8, Liao discloses: wherein the one or more seat attachment portions are positioned to support the second seat above the at least one front wheel (See, e.g., Fig. 11-12).

[Claim 9] Regarding Claim 9, Liao discloses: wherein the one or more seat attachment portions each comprise a seat connector configured for connecting to the second seat (See, e.g., Fig. 1-13).

[Claim 11] Regarding Claim 11, Liao discloses: wherein the one or more first seat attachment portions are removably attached to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13), and wherein the one or more second seat attachment portions are connected to the stroller frame adjacent to the frame's handle portion (See, e.g., Fig. 1-13).

[Claim 15] Regarding Claim 15, Liao discloses: wherein the first seat is configured for being removably attached to the stroller frame at a first vertical position (See, e.g., Fig. 1-13), and the second seat is configured for being removably attached to the one or more seat attachment portions at a second vertical position that is below the first vertical position (See, e.g., Fig. 1-13).

EX1024, '417 File History, 1203-1205

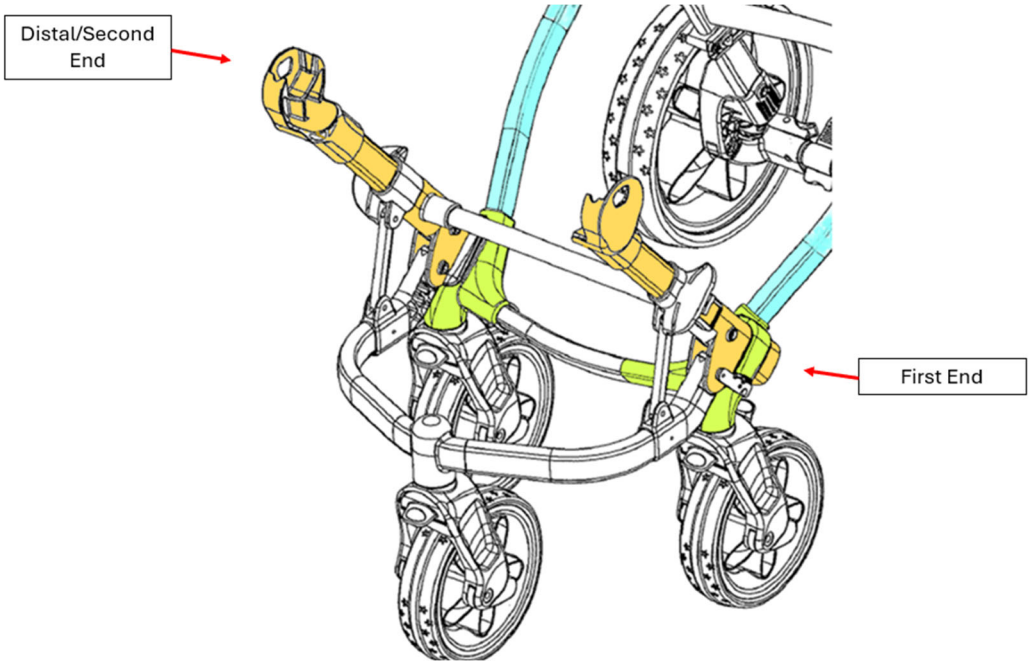
397. Accordingly, a POSITA would have understood that Liao discloses, "a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter."

398. It is my opinion therefore that Liao discloses or renders obvious

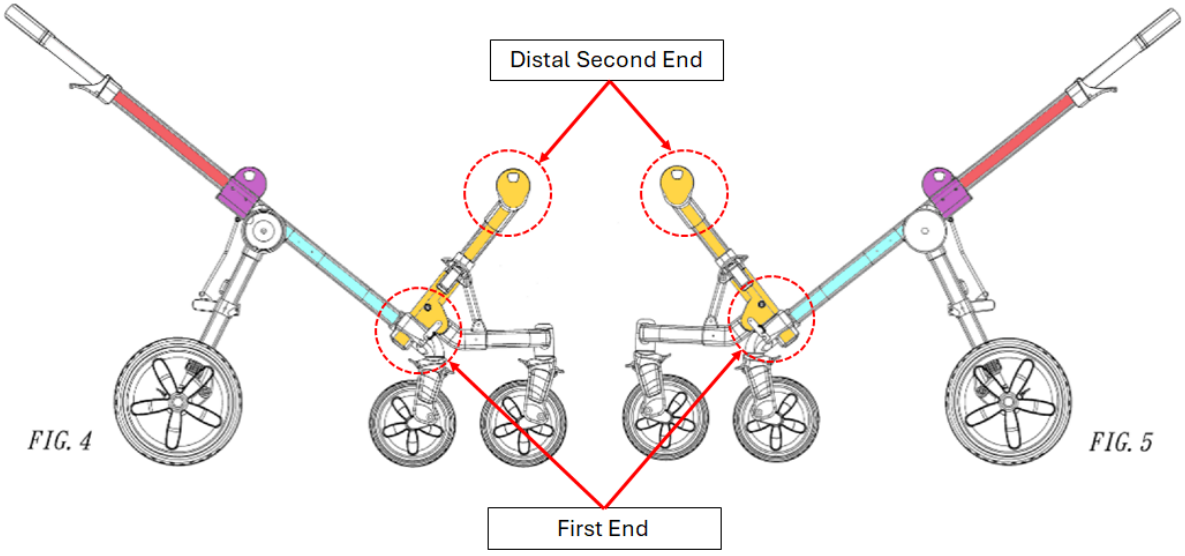
limitation [3.0].

> … ***[4.0] 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.***

399. As I have shown below, Liao discloses adapters (gold) each having a first end and a distal second end. While I have also circled the "first" and "distal second" ends below, a POSITA would understand what I have circled could be slightly larger or smaller areas, as the claim limitation does not provide exact dimensions for what constitutes each end.



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

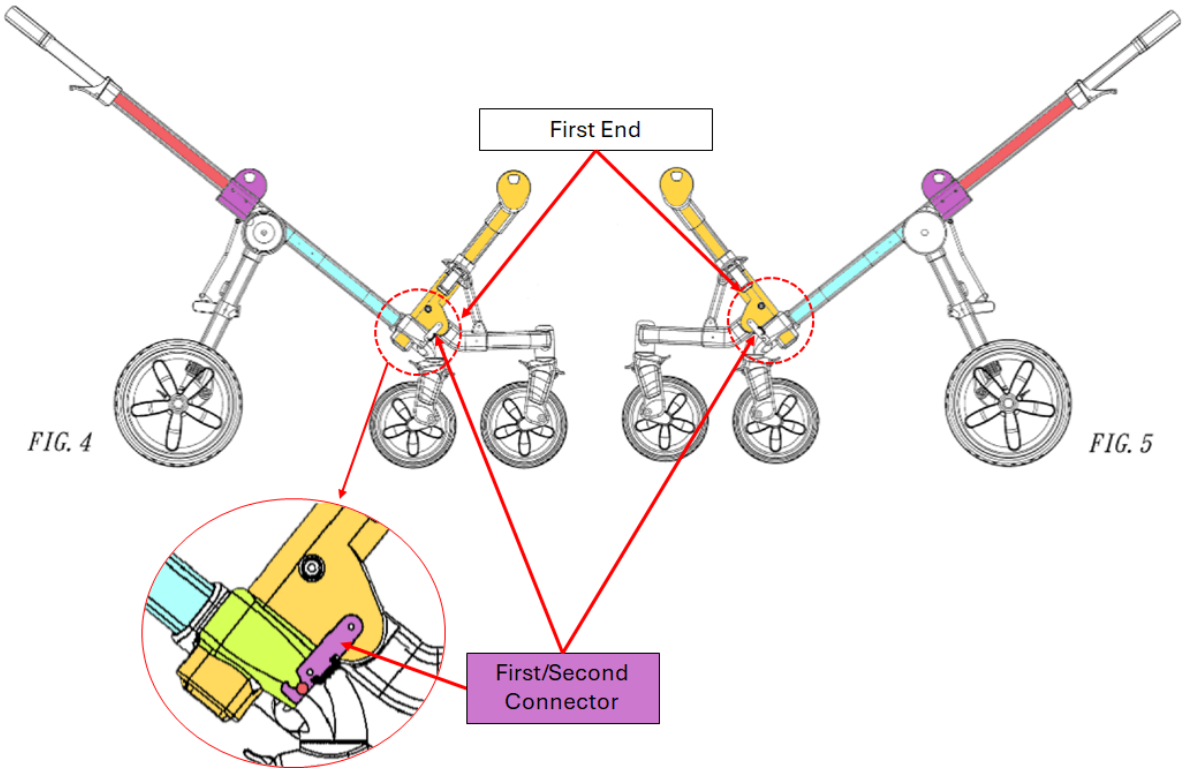


EX1048, Liao, Figs. 2-3 (Annotated)

400. Therefore, it is my opinion that Liao discloses or renders obvious Claim [4.0].

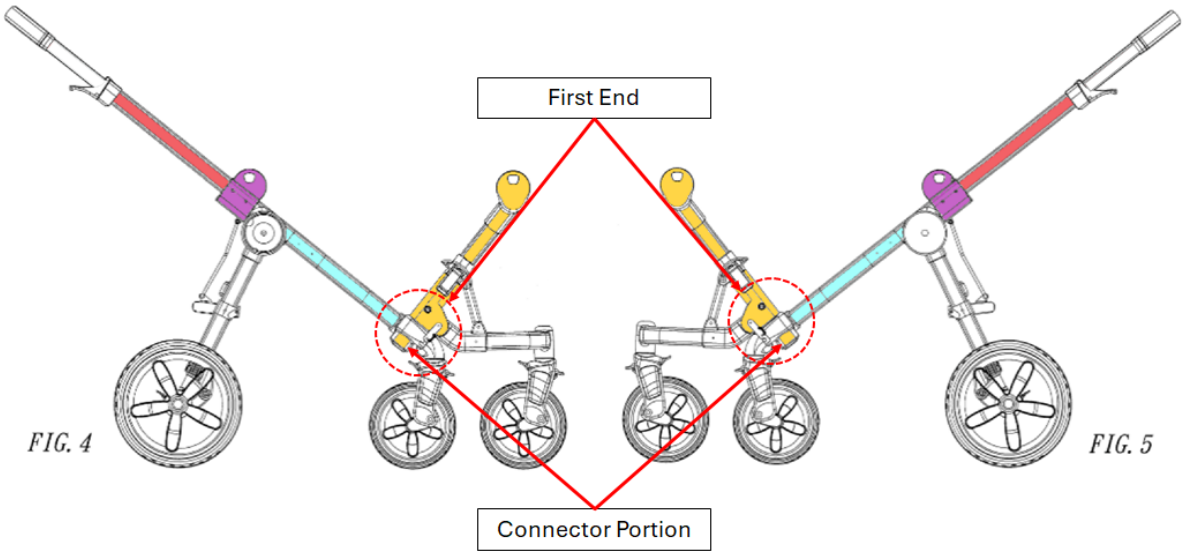
> … ***[5.0] The stroller of claim 4, wherein the first end comprises the respective first connector portion or the second connector portion and, and the first end is releasably connected to the respective first seat attachment housing or the second seat attachment housing.***

401. I have indicated two portions of Liao's stroller could be the first/second "connector portion." Figures 4 and 5 illustrate the right and left side of Liao's stroller. I show one side below (Figure 4) illustrating one of the latches, although the other side (Figure 5) includes a similar latch. A POSITA would understand the right-side/left-side latches (purple) are a first/second "connector portion." These latches are located at the first end of the adapter and operate to releasably couple (*i.e.*, connect) the first/second adapters to the housings.



EX1048, Liao, Figs. 4-5 (Annotated)

402. Alternatively, I have indicated the section of the adapter that is inserted into the housing as being the first/second connector portion because both ends of Liao's adapters would be understood by a POSITA as being removably inserted, and therefore connected, to the housings.

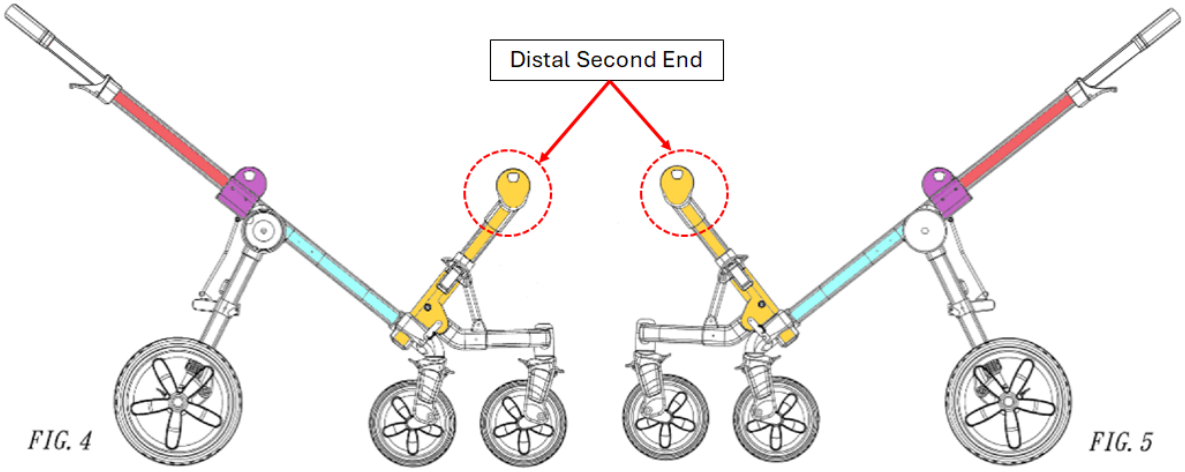


EX1048, Liao, Figs. 4-5 (Annotated)

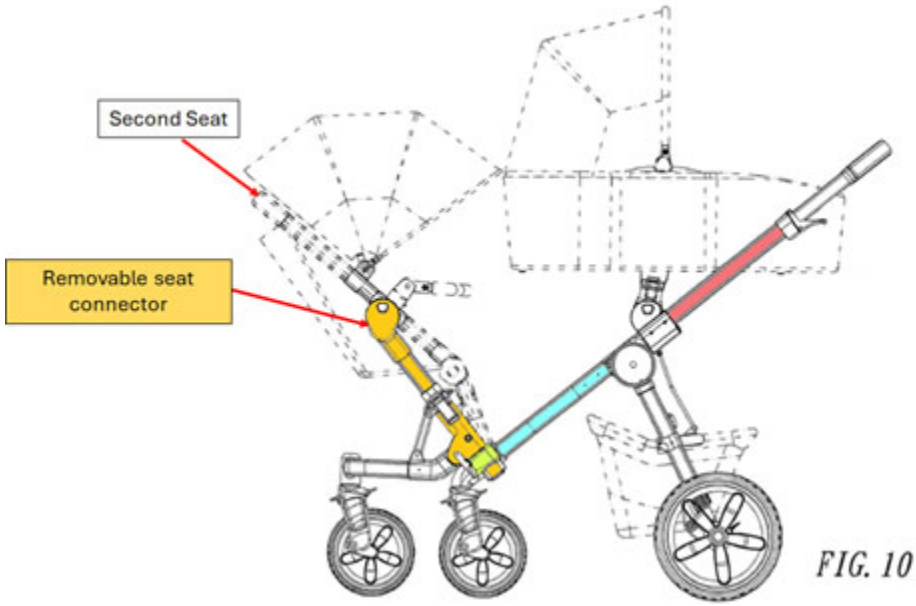
403. Therefore, Liao discloses or renders obvious claim limitation [5.0].

… ***[6.0] The stroller of claim 4, wherein the distal second end is releasably connected to a second seat.***

404. As I discussed in claim 4, the upper end of the "adapter" is the "distal second end." As I discussed in claim 3, the upper end of the "adapter" has a seat coupling portion that is "releasably connected to the second seat." As I have shown below, Liao discloses the distal second end includes a connector for "releasably connect[ing]" a "second seat."



EX1048, Liao, Figs. 4-5 (Annotated)

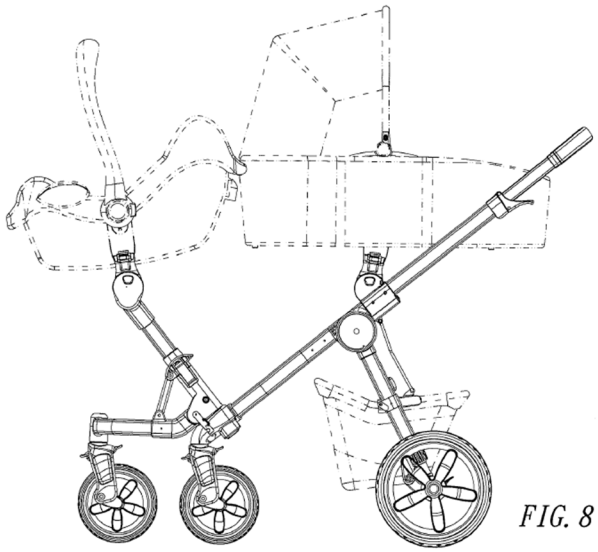


EX1048, Liao, Fig. 10 (Annotated)

… ***[7.0] The stroller of claim 3, 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.***

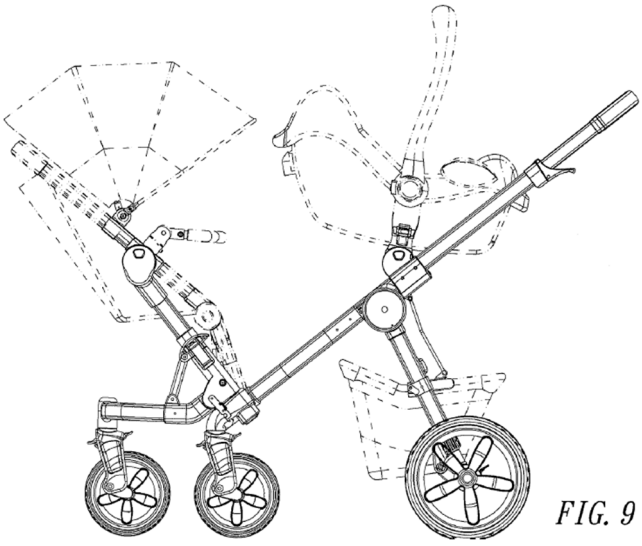
405. Liao discloses many different types of seats that may be connected to

the pushchair frame. For example, Figure 8 shows a bassinet as the first seat and an infant/baby carrier as the second seat:



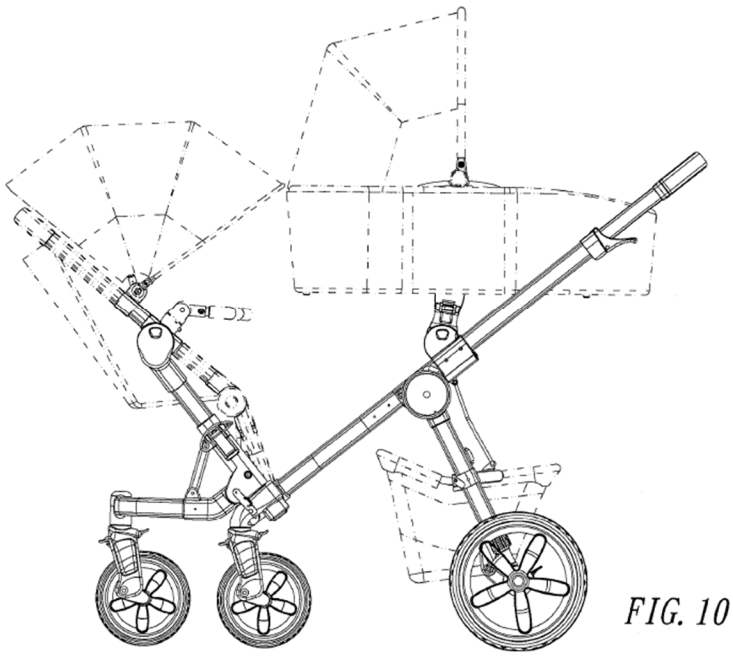
EX1048, Liao, Fig. 8

406. Figure 9 shows an infant/baby carrier as the first seat and a stroller seat as the second seat:



EX1048, Liao, Fig. 9

407. Figure 10 shows a bassinet as the first seat and a stroller seat as the second seat:



EX1048, Liao, Fig. 10

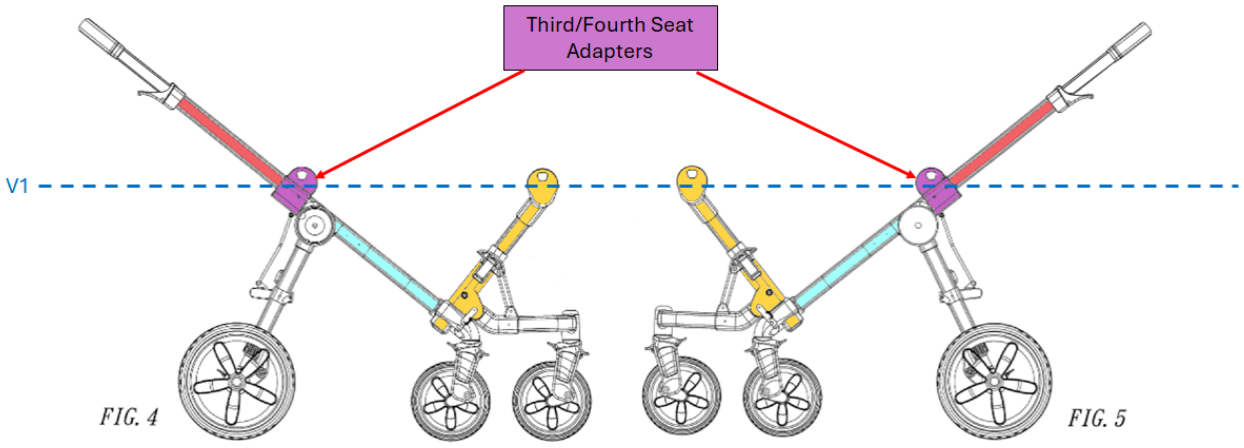
408. Therefore, it is my opinion that Liao discloses or renders obvious limitation [7.0].

[8.0] 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

409. Liao also discloses a pair of upper seat attachment adapters (purple) for connecting the first, upper seat to the pushchair frame. Both of these upper seat

adapters are coupled directly to the first/second upper tube support frames (red) (*i.e.*, stroller frame) at the first vertical position (V1).

410. These third/fourth "adapters" appear to be the same type of seat connectors I have described above with respect to the first/second adapters – except they do not have an extension arm. Indeed, the figures of Liao (e.g., Figures 8-13) illustrate the third/fourth attachment adapters function to allow the first seat to be removably coupled.



EX1048, Liao, Figs. 4-5

411. During prosecution of the related '417 Application, the Examiner confirmed my understanding that Liao teaches third/fourth seat attachment adapters for removably coupling an upper "first" seat. The Examiner found Liao discloses a "second" set of seat attachment portions coupled to the stroller frame and which operate to allow Liao's first upper seat to be removably coupled.

14. **Claims 2-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao (US D593,459).**

[Claim 2] Regarding Claim 2, Liao discloses: A convertible stroller (See, e.g., Fig. 1-13) configured for being converted from a single stroller to a double stroller (See, e.g., Fig. 1-13), the stroller comprising: a stroller frame (See, e.g., Fig. 1-13) configured for being adjusted between a folded configuration and an unfolded configuration (See, e.g., Fig. 1-13), the stroller frame comprising: a handle portion (See, e.g., Fig. 1-13); a front wheel support portion (See, e.g., Fig. 1-13); and a back wheel support portion (See, e.g., Fig. 1-13); and at least one front wheel secured to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13); two rear wheels secured to the stroller frame's back wheel support portion (See, e.g., Fig. 1-13); a first seat (See, e.g., Fig. 1-13) removably attached to the stroller frame (See, e.g., Fig. 1-13); one or more seat attachment portions removably attached to the stroller frame (See, e.g., Fig. 1-13); and a second seat (See, e.g., Fig. 1-13) removably attached to the one or more seat attachment portions (See, e.g., Fig. 1-13) and positioned in front of the first seat (See, e.g., Fig. 1-13); wherein at least one of the first seat and the second seat is configured for being removably attached to the stroller frame in a forward-facing configuration and a backward-facing configuration (See, e.g., Fig. 11-12); and wherein the first seat and the second seat are positioned such that a center of gravity of the stroller is between the at least one front wheel and the plurality of back wheels (See, e.g., Fig. 1-13).

EX1024, '417 File History, 1203

[Claim 10] Regarding Claim 10, Liao discloses: wherein the one or more seat attachment portions comprise one or more first seat attachment portions and the stroller further comprises one or more second seat attachment portions connected to the stroller frame (See, e.g., Fig. 1-13); and wherein the first seat is removably attached to the one or more second seat attachment portions (See, e.g., Fig. 1-13).

[Claim 12] Regarding Claim 12, Liao discloses: wherein the first seat is configured for being attached to the stroller frame in a forward-facing configuration and a backward-facing configuration (See, e.g., Fig. 11-12).

[Claim 15] Regarding Claim 15, Liao discloses: wherein the first seat is configured for being removably attached to the stroller frame at a first vertical position (See, e.g., Fig. 1-13), and the second seat is configured for being removably attached to the one or more seat attachment portions at a second vertical position that is below the first vertical position (See, e.g., Fig. 1-13).

EX1024, '417 File History, 1204-1205

412. Therefore, it is my opinion that Liao discloses or renders obvious

limitation [8.0].

… ***[9.0] The stroller of claim 1, wherein the second vertical position and the third vertical position are at a same vertical height.***

413. As shown in the back view of Figure 3, Liao is symmetrical with the "first and second seat attachment housings" being coupled to the stroller frame at the same height shown by the blue datum line in annotated Figure 3 below. (EX1048, Liao, Fig. 3.)

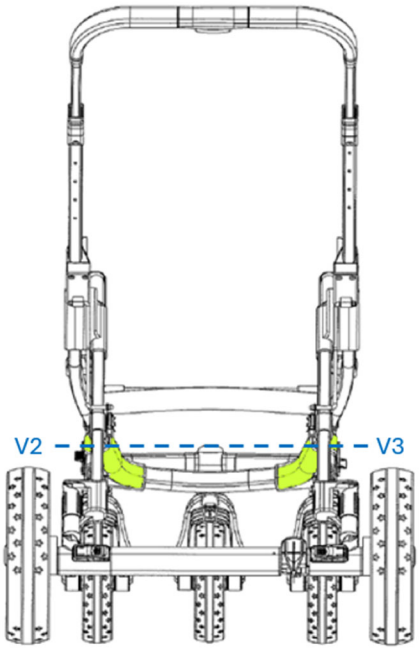


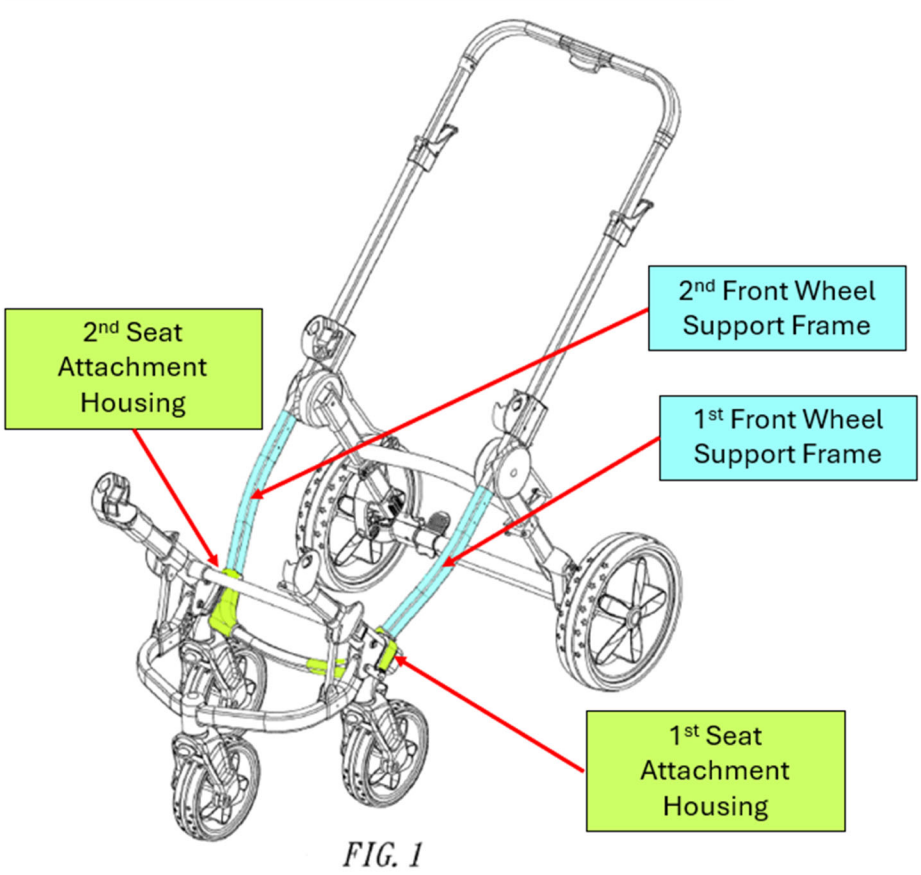
FIG. 3

EX1048, Liao, Fig. 3 (Annotated)

414. Therefore, it is my opinion that Liao discloses or renders obvious claim limitation [9.0].

… ***[13.0] The stroller of claim 1, wherein the first seat attachment housing and the second seat attachment housing are part of the stroller frame.***

415. As I discussed in claim 1, the first/second "seat attachment housings" (green) are coupled to what I have identified as being the "front wheel support frames" (blue). A POSITA would clearly understand both "housings" to be part of the stroller frame.



EX1048, Liao, Fig. 1 (Annotated)

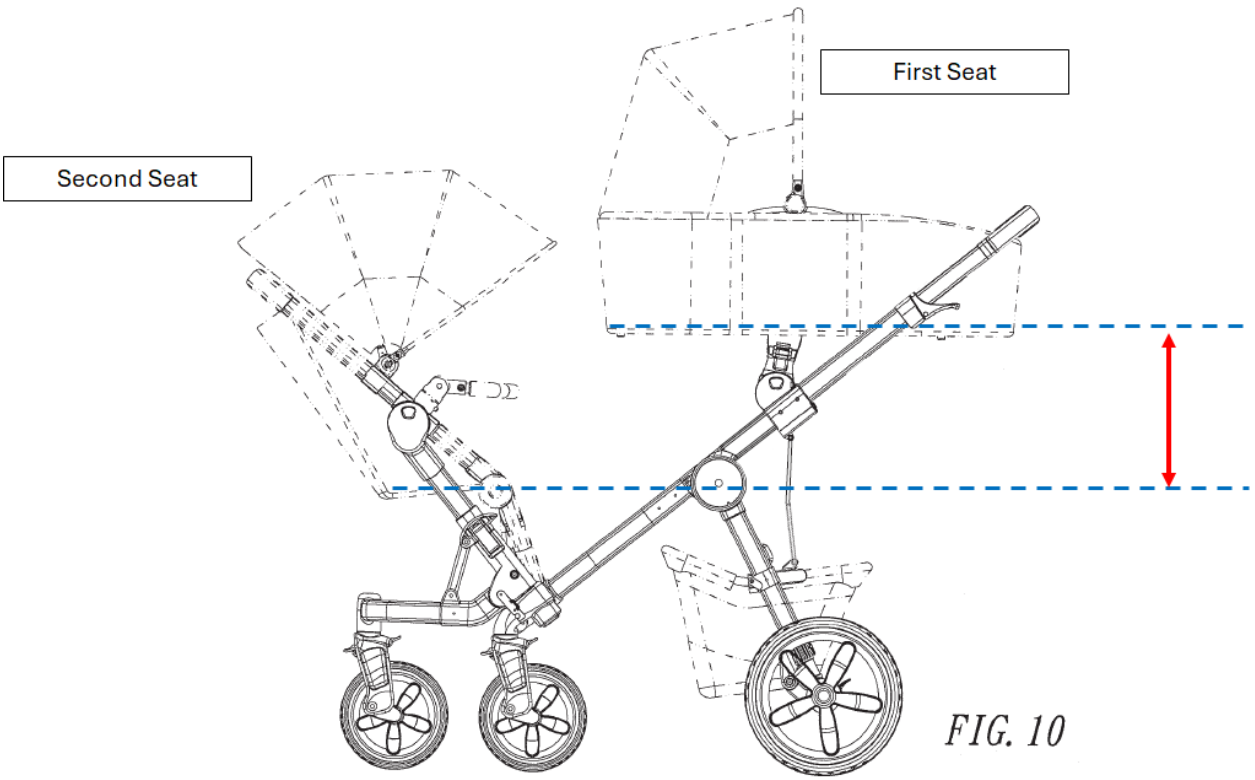
416. A POSITA would have considered Liao's "housings" (green) to be "part of the stroller frame" because they are a load carrying component and

directly connect with the tubes of the frame and to the front wheels.

417. Therefore, it is my opinion that Liao discloses or renders obvious limitation [13.0].

… ***[14.0] The stroller of claim 3, wherein the second seat is vertically lower than the first seat.***

418. Liao teaches multiple seat variations seats which can be coupled to the disclosed stroller. Figure 10 below visually illustrates the lower "second" seat is vertically lower than the upper "first" seat. I have drawn a line through where the buttocks of the infant would be positioned in the seats. As I have shown, the second seat is vertically lower than the first seat.



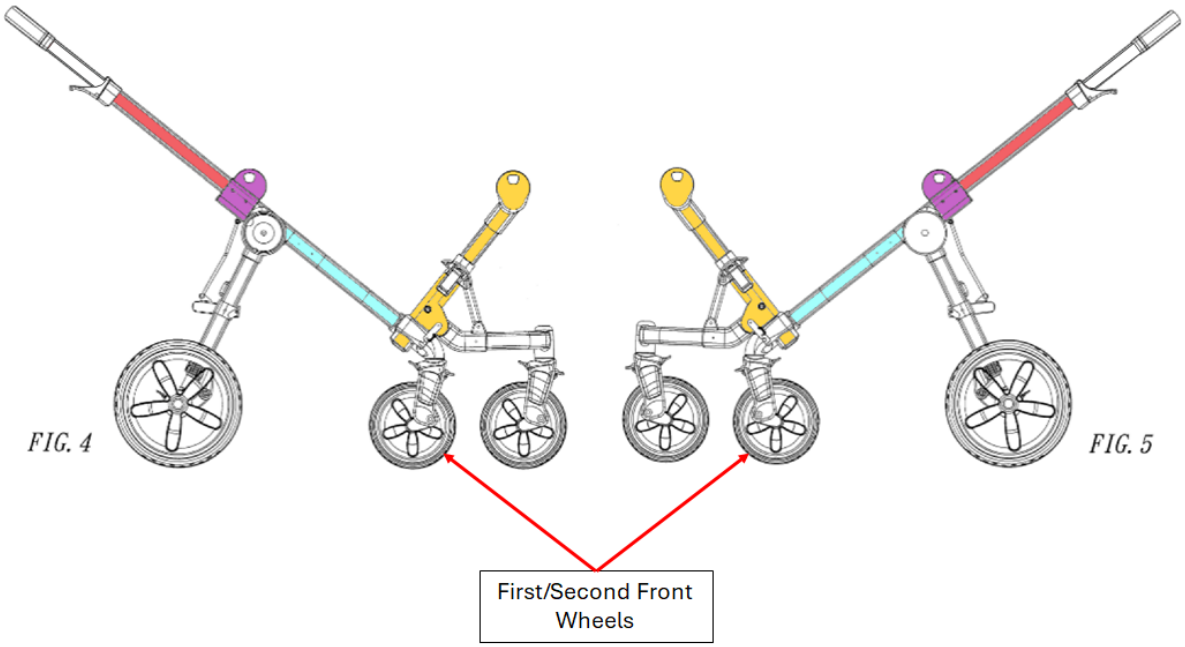
EX1048, Liao, Fig. 10 (Annotated)

419. Therefore, it is my opinion that Liao discloses or renders obvious limitation [14.0].

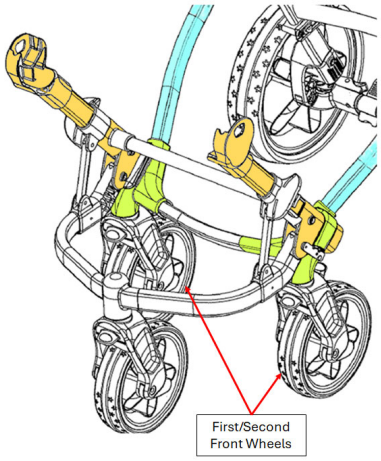
> … ***[15.0] The stroller of claim 1, wherein the first front wheel extends from the first seat attachment housing, and wherein the second front wheel extends from the second seat attachment housing.***

420. As I stated in limitation [1.4], Liao teaches a first/second front wheel.

421. The first/second front wheels are attached to Liao's "seat attachment housings" (green). A POSITA would have understood that the front wheels are pivotally connected to the housings (green) by a shaft to allow Liao's stroller to be steerable. A POSITA would also understand the "first and second front wheels" extend downward from the bottoms of the housings (green).



EX1048, Liao, Figs. 4-5 (Annotated)



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

422. Therefore, it is my opinion that Liao discloses or renders obvious limitation [15.0].

… ***[16.0] The stroller of claim 1, wherein the plurality of wheels comprises at least one central wheel.***

423. Liao visually discloses a single "central wheel" as part of the second-seat assembly. When the adapters are coupled to the stroller frame "housings," Liao's stroller includes the "at least one central wheel."



FIG. 1

EX1048, Liao, Fig. 1 (Annotated)

424. My opinion is confirmed by the prosecution history of the ’682 Patent, where the Examiner also found Liao disclosed issued claim 16 (then claim 23.) (EX1020, 685–686.)

C. Ground 3 – Claims 10–12 are obvious over Liao in view of Cheng

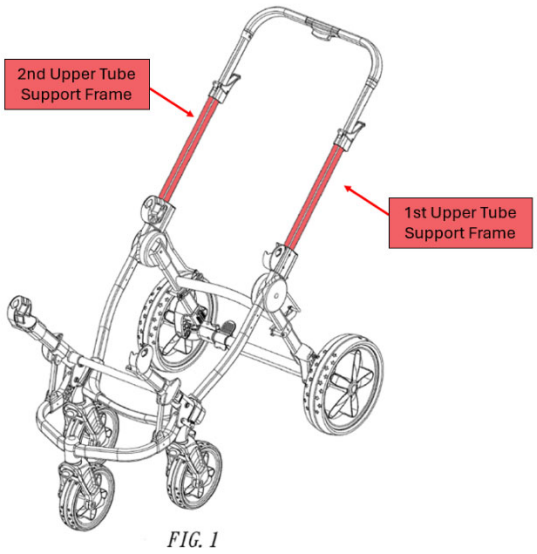
… ***[10.0] The stroller of claim 1, wherein the stroller frame comprises:***

425. See Ground 2, limitation [1.0] above.

… ***[10.1] a first upper tube support frame;***

… ***[10.2] a second upper tube support frame;***

426. A POSITA reviewing the drawings would understand Liao discloses a stroller frame including left and right-side upper tube support frames (red). A POSITA would consider the tubes I have highlighted in red as being the first and second upper tube support frames.



EX1048, Liao, Fig. 1 (Annotated)

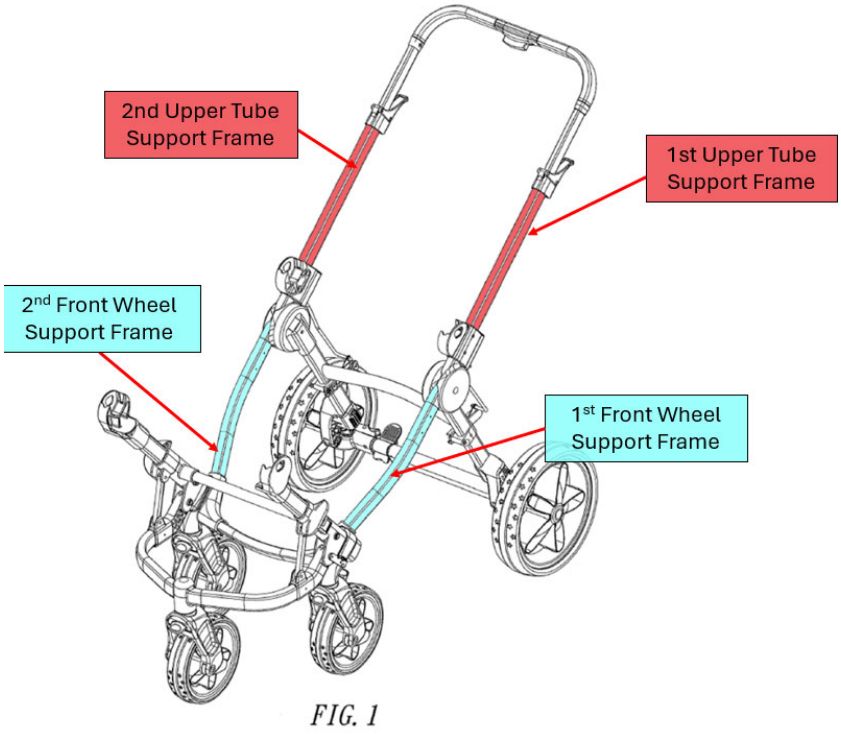
427. Therefore, it is my opinion that Liao discloses or renders obvious limitations [10.1]–[10.2].

… ***[10.3] a first front wheel support frame configured to rotate with respect to the first upper tube support frame;***

… ***[10.4] a second front wheel support frame configured to rotate with respect to the second upper tube support frame;***

428. In reviewing the drawings, a POSITA would find Liao illustrates two lower tubes (blue) of the side frames extending downwardly to connect with the front wheels.

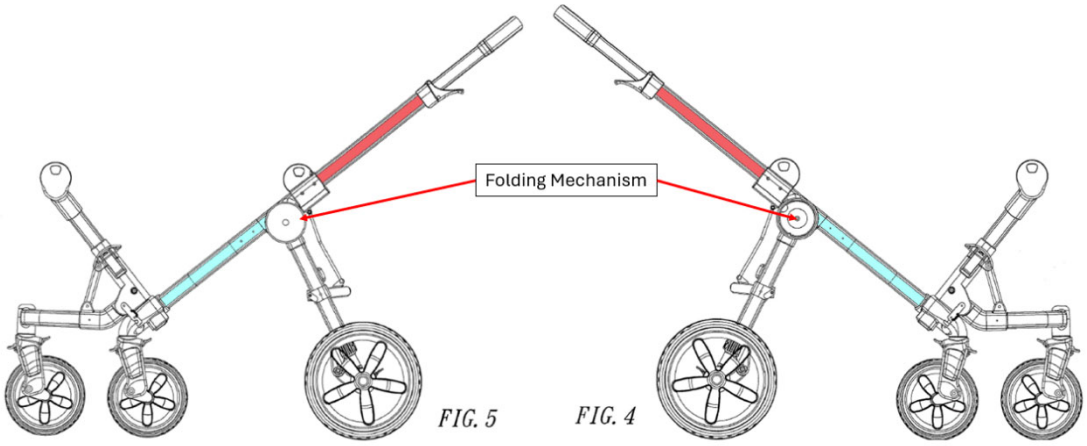
429. A POSITA would consider these lower tubes to be a "first front wheel support frame" and a "second front wheel support frame," as they are the portion of Liao's frame supporting the front wheels.



EX1048, Liao, Fig. 1 (Annotated)

430. The side views of Liao (Figures 4 and 5) show the upper tube frames

(red) being parallel to the front wheel frames (blue) and joined with a folding mechanism.



EX1048, Liao, Figs. 4-5

431. By 2008, a POSITA would have known that strollers had folding mechanism to provide the capability to collapse a stroller for storage or transporting. A POSITA therefore understood that nearly all strollers designed by 2008 were capable of being unfolded from a folded configuration and vice versa.

432. For instance, in my State of the Art section, I discuss the basic stroller designs known prior to December 2008, including a subsection titled "Folding Mechanisms" that details how strollers were known and designed to be folded or collapsed for storage and transportation. Folding (collapsing) of a stroller from an unfolded configuration is even shown in a YouTube video demonstration of a

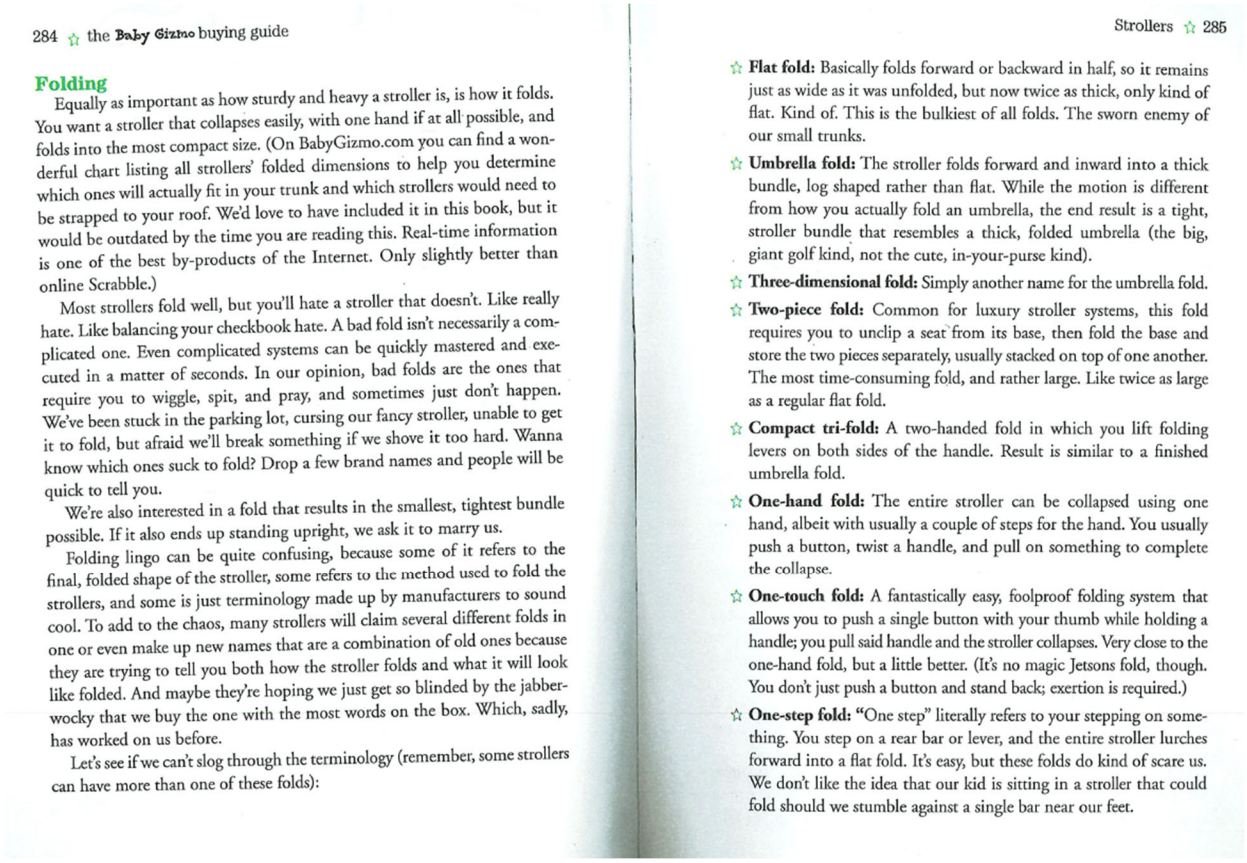
commercial Uppababy Vista stroller. (EX1031, Hollie Schultz Dec., EX2[20] at 2 mins. 10 secs., 2 mins. 19 secs; see also EX1032, Greg Allen Dec., 39.)



EX1031, Hollie Schultz Dec., EX2 at 2 mins. 10 secs., 2 mins. 19 secs.

The capability of a stroller folding via various types of folding mechanisms was universal in stroller design at the time of the invention. (EX1031, Hollie Schultz Dec., ¶¶24-25, 29 and EX10–*The Baby Gizmo Buying Guide*, 282-286.)

[20] https://www.youtube.com/watch?v=9IrmQs8kL5I



284 ☆ the Baby Gizmo buying guide

Folding

Equally as important as how sturdy and heavy a stroller is, is how it folds. You want a stroller that collapses easily, with one hand if at all possible, and folds into the most compact size. (On BabyGizmo.com you can find a wonderful chart listing all strollers' folded dimensions to help you determine which ones will actually fit in your trunk and which strollers would need to be strapped to your roof. We'd love to have included it in this book, but it would be outdated by the time you are reading this. Real-time information is one of the best by-products of the Internet. Only slightly better than online Scrabble.)

Most strollers fold well, but you'll hate a stroller that doesn't. Like really hate. Like balancing your checkbook hate. A bad fold isn't necessarily a complicated one. Even complicated systems can be quickly mastered and executed in a matter of seconds. In our opinion, bad folds are the ones that require you to wiggle, spit, and pray, and sometimes just don't happen. We've been stuck in the parking lot, cursing our fancy stroller, unable to get it to fold, but afraid we'll break something if we shove it too hard. Wanna know which ones suck to fold? Drop a few brand names and people will be quick to tell you.

We're also interested in a fold that results in the smallest, tightest bundle possible. If it also ends up standing upright, we ask it to marry us.

Folding lingo can be quite confusing, because some of it refers to the final, folded shape of the stroller, some refers to the method used to fold the strollers, and some is just terminology made up by manufacturers to sound cool. To add to the chaos, many strollers will claim several different folds in one or even make up new names that are a combination of old ones because they are trying to tell you both how the stroller folds and what it will look like folded. And maybe they're hoping we just get so blinded by the jabberwocky that we buy the one with the most words on the box. Which, sadly, has worked on us before.

Let's see if we can't slog through the terminology (remember, some strollers can have more than one of these folds):

Strollers ☆ 285

☆ **Flat fold:** Basically folds forward or backward in half, so it remains just as wide as it was unfolded, but now twice as thick, only kind of flat. Kind of. This is the bulkiest of all folds. The sworn enemy of our small trunks.

☆ **Umbrella fold:** The stroller folds forward and inward into a thick bundle, log shaped rather than flat. While the motion is different from how you actually fold an umbrella, the end result is a tight, stroller bundle that resembles a thick, folded umbrella (the big, giant golf kind, not the cute, in-your-purse kind).

☆ **Three-dimensional fold:** Simply another name for the umbrella fold.

☆ **Two-piece fold:** Common for luxury stroller systems, this fold requires you to unclip a seat from its base, then fold the base and store the two pieces separately, usually stacked on top of one another. The most time-consuming fold, and rather large. Like twice as large as a regular flat fold.

☆ **Compact tri-fold:** A two-handed fold in which you lift folding levers on both sides of the handle. Result is similar to a finished umbrella fold.

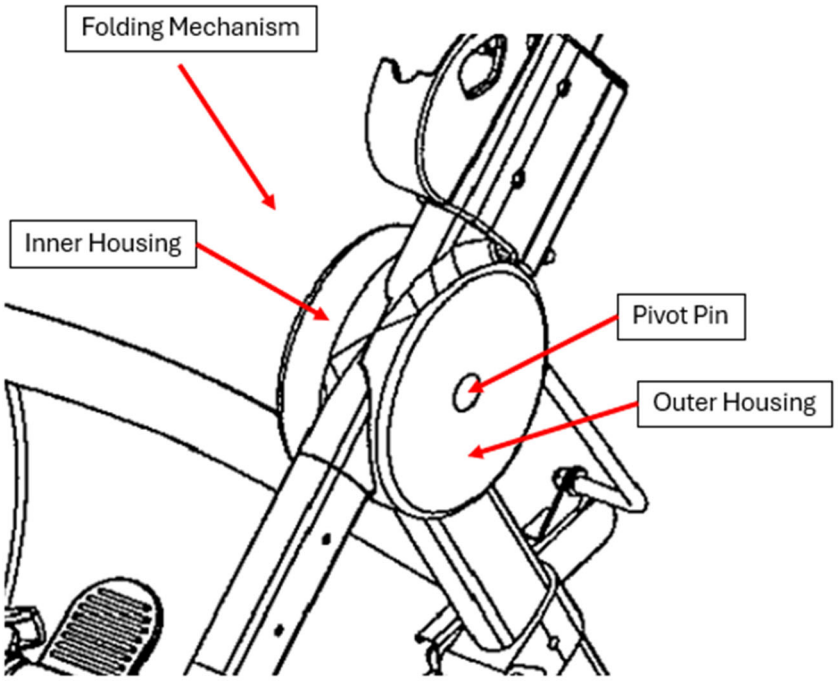
☆ **One-hand fold:** The entire stroller can be collapsed using one hand, albeit with usually a couple of steps for the hand. You usually push a button, twist a handle, and pull on something to complete the collapse.

☆ **One-touch fold:** A fantastically easy, foolproof folding system that allows you to push a single button with your thumb while holding a handle; you pull said handle and the stroller collapses. Very close to the one-hand fold, but a little better. (It's no magic Jetsons fold, though. You don't just push a button and stand back; exertion is required.)

☆ **One-step fold:** "One step" literally refers to your stepping on something. You step on a rear bar or lever, and the entire stroller lurches forward into a flat fold. It's easy, but these folds do kind of scare us. We don't like the idea that our kid is sitting in a stroller that could fold should we stumble against a single bar near our feet.

EX1031, Hollie Schultz Dec., ¶¶24-25, 29 and EX10–*The Baby Gizmo Buying Guide*, 282-286

433. For instance, a POSITA would have understood the pushchair of Liao depicts folding mechanisms that connect the upper tube frames (red) to the front wheel support frames (blue). In the zoomed drawing below, a POSITA would understand Liao illustrates the folding mechanisms coupling the upper tube support frame and the front wheel support frame. The illustrated nature of how these components are connected by the round folding mechanism informs a POSITA that the stroller is designed such that the upper tube frames and front wheel support frames are designed to be folded for storage.



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

434. A POSITA would have also understood Figure 1 illustrates inner and outer circular housings (also known as hubs) and a pivot pin. These features inform a POSITA that Liao is illustrating a folding mechanism and not merely a fixed coupling between the frame members. A POSITA would understand a folding mechanism would include the shown circular housings and pivot pin to contain and support the arcuate internal components used for rotating the support frames relative to each other about the pivot axis defined through the pivot pin. There is no reason to include the circular housings and pivot pin in a stationary coupling due to its bulk compared to a simple sleeve or tee coupling.

435. Therefore, it is clear to me (and a POSITA) that Liao has left and right folding mechanisms that allow the upper tubes (red) and front wheel support

frames (blue) to pivot relative to each other and that Liao, in Figures 4 and 5, shows the upper support frames (red) and the front wheel frames (blue) parallel to each other when in the unfolded position.

436. Liao further illustrates what a POSITA would understand as being a "release mechanism" on the handlebar. A POSITA would have known to include and place a release mechanism for unlocking the folding mechanism so that a stroller could be collapsed.

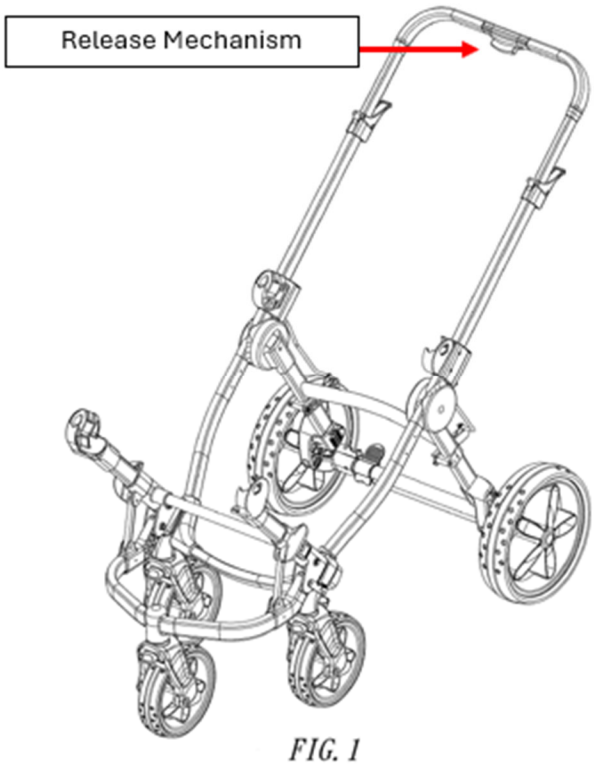


FIG. 1

EX1048, Liao, Fig. 1 (Annotated)

437. For example, as explained in my State of the Art section, U.S. Patent Pub. No. 2008/0238042 (EX1035) illustrates a "collapsing operation device 14" (*i.e.*, release mechanism) similarly located on the handle. This "collapsing device"

allows the stroller to be collapsed. (EX1035, U.S. Patent Pub. No. 2008/0238042, ¶26.) A POSITA would have understood that Liao illustrates such a well-known and commonly employed release mechanism meant for collapsing the stroller from an expanded state to a collapsed state.

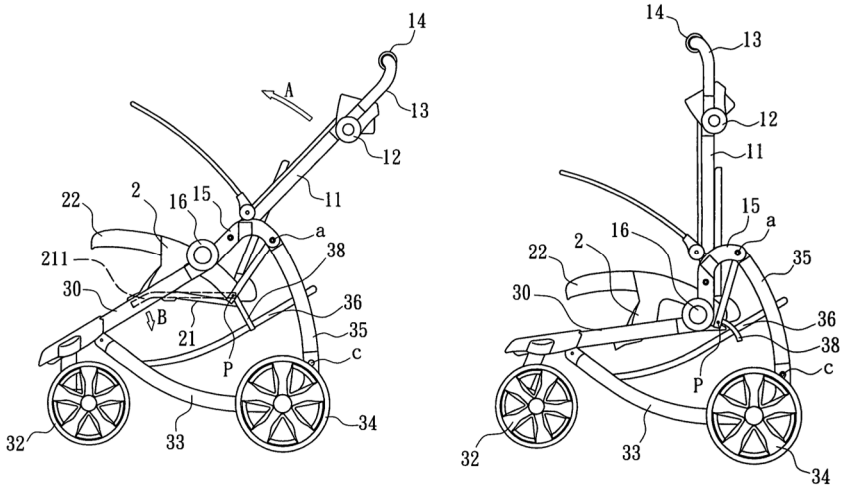


Fig.5A Fig.5B

EX1035, U.S. Patent Pub. No. 2008/0238042, Figs. 5A-5B

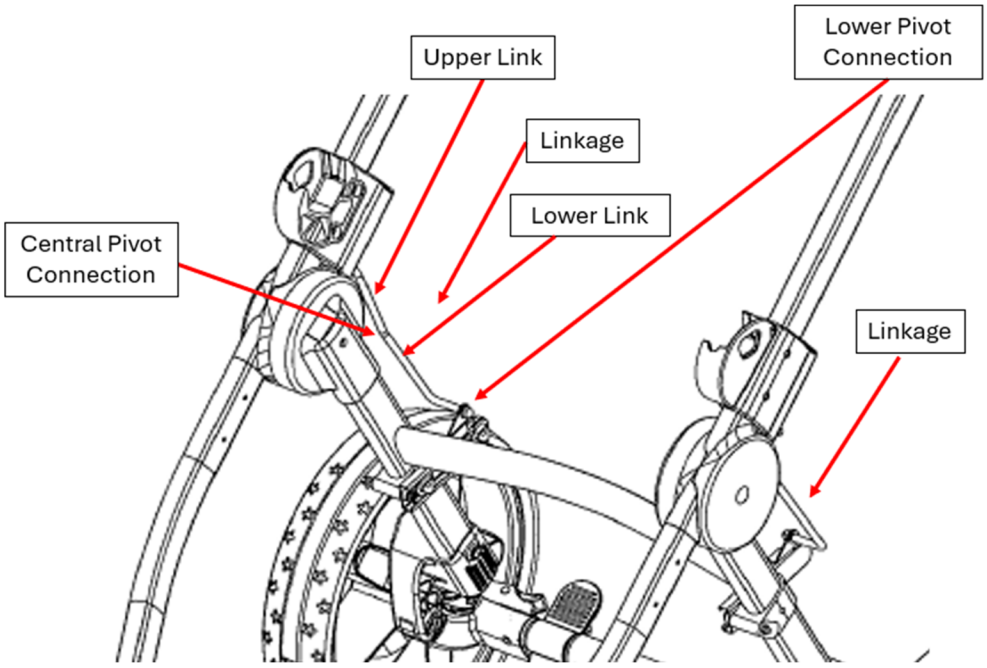
[0033] The collapsing operation of the collapsible stroller of the present invention will be described with reference to FIGS. 5A-5E.

[0034] The stroller shown in FIG. 5A is in a fully expanded state and when the stroller needs to be collapsed, the user first operate the collapsing operation device 14 disposed on the handle 13 to actuate the locking member (a first locking device) disposed on the upper frame tube 11 or the connecting member 15 to cause the upper frame tubes 11 unlocked from the front legs 30 and thus the upper frame tubes 11 and the handle 13 is able to pivot forwardly about the connecting seat 16 toward the front legs 30 (as indicated by arrow A),

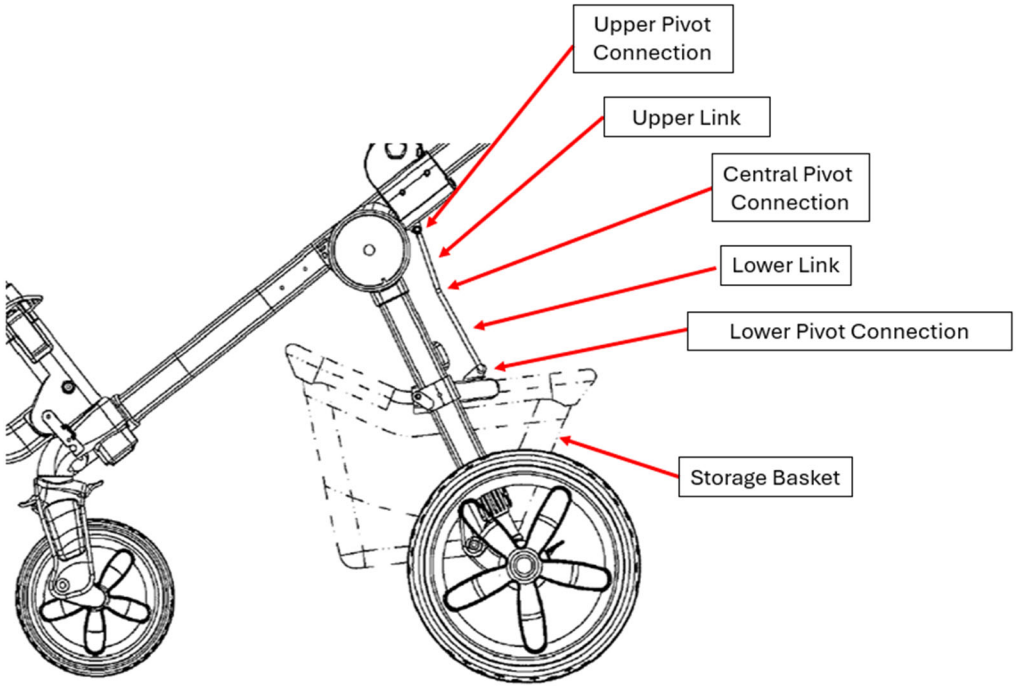
> and the front legs 30 in turn pivot downwardly toward the base frame tubes 33 (as indicated by arrow B) and into a state in which they are substantially parallel to the supporting tubes 211 of the seat portion 21 of the seat unit 2 (i.e., the biasing spring 50 is not twisted), as shown in FIG. 5B.

(EX1035, U.S. Patent Pub. No. 2008/0238042, ¶¶0033-0034.)

438. Furthermore, Liao illustrates additional components designed to assist in proper operation during folding of the frame members. For example, Liao illustrates a pair of linkages, each connecting between the upper support frame and the back wheel support frame. Each linkage is illustrated as having an upper link with an upper pivot connection, a lower link with a lower pivot connection, and a central pivot connection joining the upper and lower links. Each linkage is also bent slightly forward at the central pivot with the links slightly angled relative to each other. These pivot connections, plus the forward angle of the links relative to each other, clearly illustrate that each linkage is designed to collapse about the central pivot, allowing the back wheel frames to rotate towards the upper frame members.



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



EX1048, Liao, Fig. 8 (Cropped and Annotated)

439. My reading of Liao is confirmed by the prosecution history of the related '417 Application where the Examiner also found Liao teaches "a stroller

frame … configured ***for being adjusted between a folded configuration and an unfolded configuration***[.]" (EX1024, '417 File History, 1203.) It is my understanding the Patent Owner did not try and rebut the Examiner's finding that Liao teaches a foldable stroller. (see EX1024, '417 File History, 1394.)

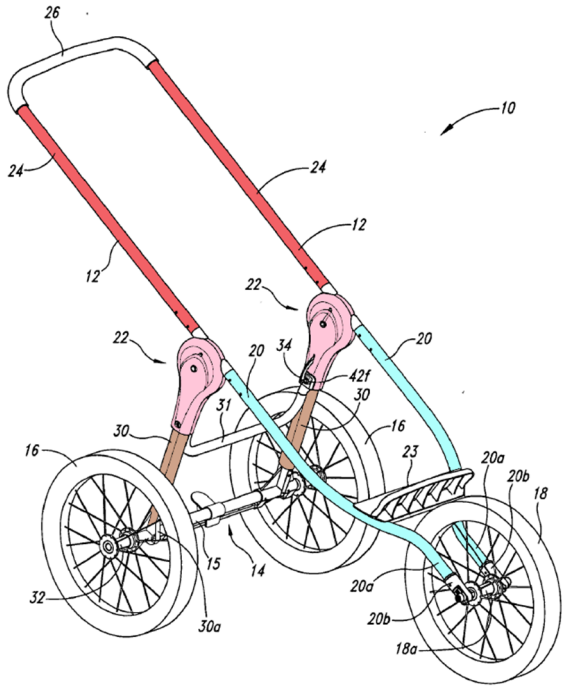
14. **Claims 2-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao (US D593,459).**

[Claim 2] Regarding Claim 2, Liao discloses: A convertible stroller (See, e.g., Fig. 1-13) configured for being converted from a single stroller to a double stroller (See, e.g., Fig. 1-13), the stroller comprising: a stroller frame (See, e.g., Fig. 1-13) configured for being adjusted between a folded configuration and an unfolded configuration (See, e.g., Fig. 1-13), the stroller frame comprising: a handle portion (See, e.g., Fig. 1-13); a front wheel support portion (See, e.g., Fig. 1-13); and a back wheel support portion (See, e.g., Fig. 1-13); and at least one front wheel secured to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13); two rear wheels secured to the stroller frame's back wheel support portion (See, e.g., Fig. 1-13); a first seat (See, e.g., Fig. 1-13) removably attached to the stroller frame (See, e.g., Fig. 1-13); one or more seat attachment portions removably attached to the stroller frame (See, e.g., Fig. 1-13); and a second seat (See, e.g., Fig. 1-13) removably attached to the one or more seat attachment portions (See, e.g., Fig. 1-13) and positioned in front of the first seat (See, e.g., Fig. 1-13); wherein at least one of the first seat and the second seat is configured for being removably attached to the stroller frame in a forward-facing configuration and a backward-facing configuration (See, e.g., Fig. 11-12); and wherein the first seat and the second seat are positioned such that a center of gravity of the stroller is between the at least one front wheel and the plurality of back wheels (See, e.g., Fig. 1-13).

EX1024, '417 File History, 1203

440. To the extent it is argued Liao does not teach a folding mechanism, it would have been obvious to a POSITA that Liao could have been designed to include a folding mechanism allowing the first/second front wheel support to be rotatably adjusted with respect to the first/second upper tube support frames when the stroller is unfolded from a folded configuration.

441. For instance, 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). As shown, Cheng's baby stroller 10 has a similar frame structure as Liao's with upper support frames 24, front wheel support frames 20, and rear-wheel support frames 30 that are all joined at common point.



EX1049, Cheng, Fig. 2 (Annotated)

The **frame 12** has no base frame members extending rearwardly from the front wheel 18 to the rear axle assembly 14 as do most conventional all-terrain strollers. Instead, **the frame 12 includes left and right side, downwardly and forwardly sloping front wheels frame members or supports 20, which each extend downward from a corresponding one of left and right side folding assemblies**

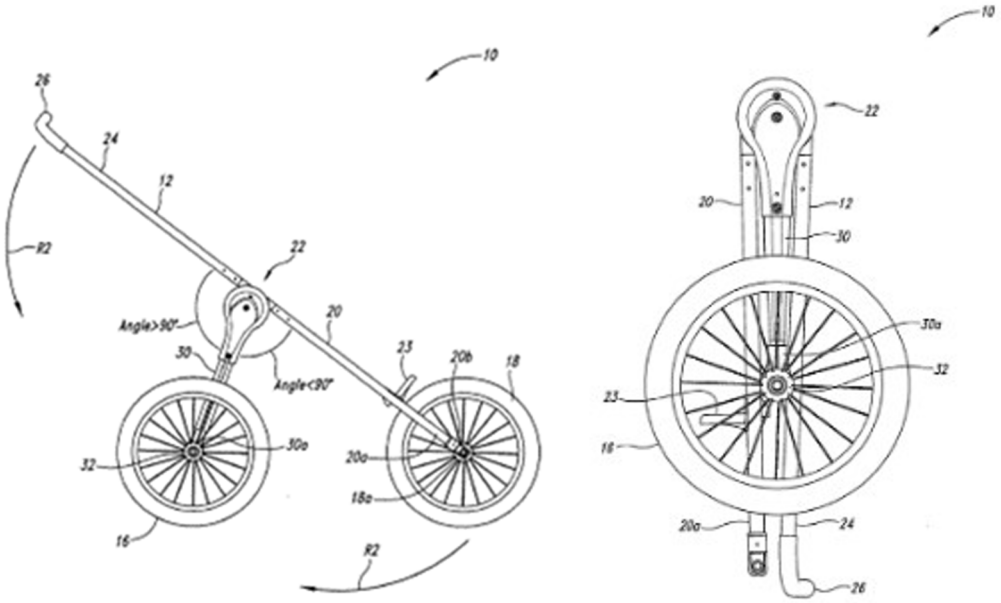
> **22** in a converging configuration to the front wheel 18. A forward free-end 20*a* of each of the left and right side front wheel supports 20 has a plastic front wheel connector 20*b* fixedly attached thereto and a corresponding one of the left and right ends of an axle 18a of the front wheel 18 removably attached thereto to mount the front wheel to the stroller frame 12.

(EX1049, Cheng, ¶0040.)

> **The frame 12 also includes left and right side, upwardly and rearwardly sloping handle frame members or supports 24, which each extend upward from the corresponding one of the left and right side folding assemblies 22 in a generally parallel configuration to a handle 26 extending between the left and right side handle supports.** The handle 26 is covered by a foam grip. The handle supports 24 are interconnected by the handle 26 that spans between them at their rearwardmost and uppermost extension and that is fixedly attached to each.

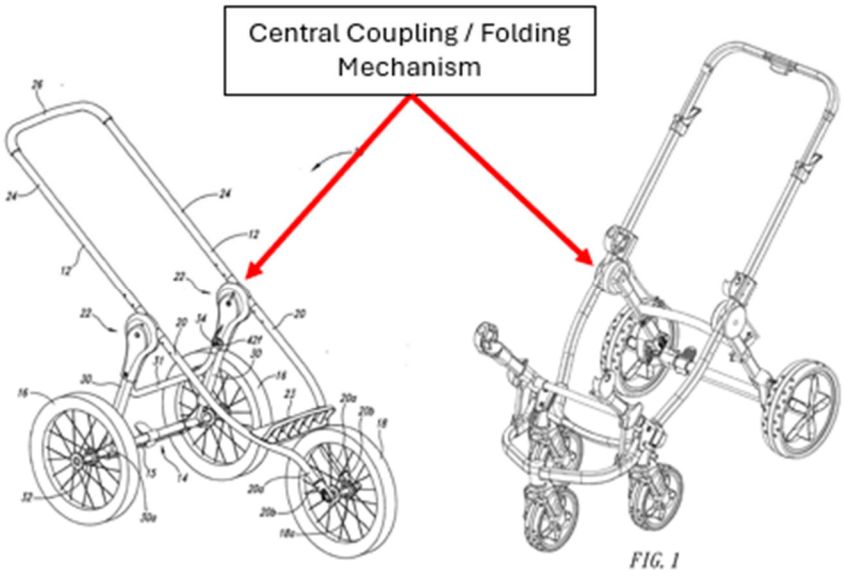
(EX1049, Cheng, ¶0042.)

442. Cheng discloses a stroller folding mechanism allowing the stroller 10 to be operable between folded and unfolded configurations. (EX1049, Cheng, ¶0019.) As best shown in Figures 4 and 6 below, the folding assemblies 22 allow the upper frames 24 and the front wheel frames 20 to fold toward the rear-wheel frames 30. Figure 4 shows the unfolded position in which the upper frames 24 and the front-wheel frames 20 are aligned and in the same plane.



EX1049, Cheng, Figs. 4 and 6

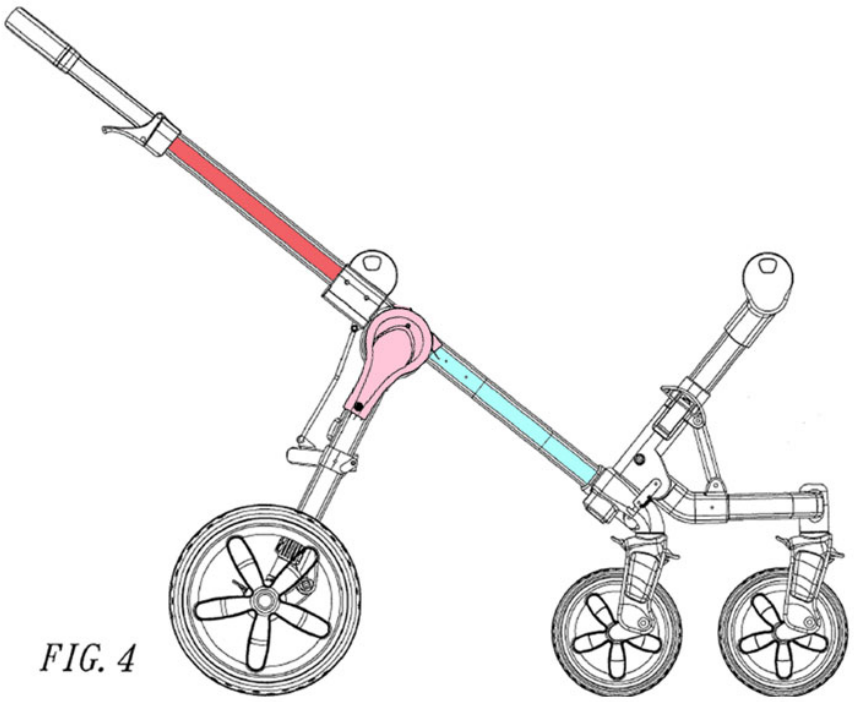
443. As I explain in my "Rationale to Combine" section below, Liao and Cheng are both in the field of baby strollers. (EX1048, Liao, CLAIM; EX1049, Cheng, ¶0003.) Both Liao and Cheng also disclose frame designs for the baby strollers. In fact, both Liao and Cheng disclose a similar frame structure of the baby stroller. As shown in the below images, Liao and Cheng have upper frame members connected with the handle, front wheel frame members, and back wheel frame members that are all joined at a central coupling, e.g., a folding mechanism. (EX1048, Liao, Fig. 1; EX1049, Cheng, ¶0040, Fig. 2.)



EX1049, Cheng, Fig. 2; EX1048, Liao, Fig. 1 (Both Annotated)

444. A POSITA would have understood that, given the similarities in frame structure, the folding assemblies 22 of Cheng could have been added to Liao in place of the illustrated coupling. As shown below, it would have been obvious to a POSITA that Cheng's folding assembly 22 (pink) could be added to the frame of Liao,[21] allowing the upper frame structure (red) to fold relative to the front wheel frame structure (blue).

[21] Assuming, of course, that Liao does not fold, which is not my opinion.



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

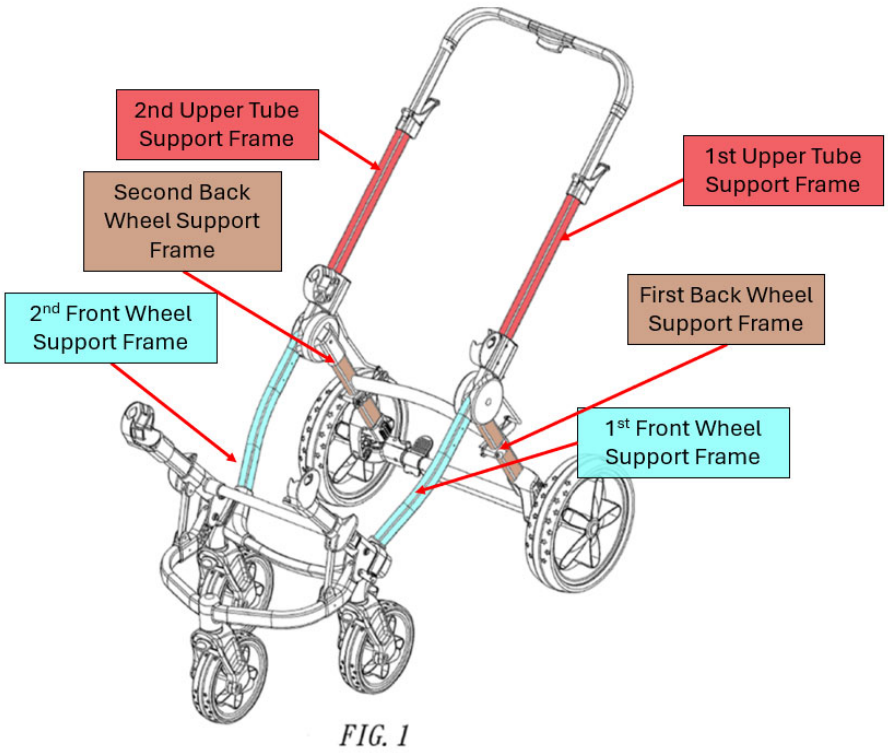
445. Unmodified, it is my opinion a POSITA would have understood Liao illustrates folding mechanisms and thus discloses the rotatably adjusted limitations of [1.2] and [1.3]. But it is also my opinion that it would have been obvious to modify and add the known folding mechanisms of Cheng to Liao as I explain below in my "Rationale to Combine."

446. Once modified, Liao would disclose the rotatably adjusted limitations of [10.3] and [10.4].

… ***[10.5] a first back wheel support frame configured to rotate with respect to the first upper tube support frame; and***

… ***[10.6] a second back wheel support frame configured to rotate with respect to the second upper tube support frame.***

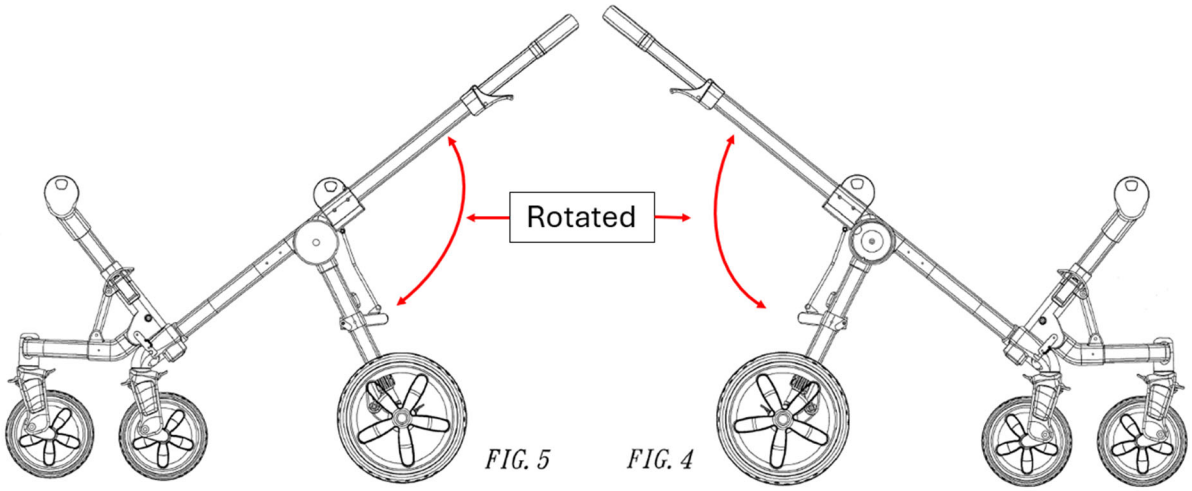
447. Liao illustrates what a POSITA would understand as being first and second back wheel support frames (brown). These are clearly back wheel support frames as they extend toward the back of the stroller and are visually associated with the back wheels.



EX1048, Liao, Fig. 1 (Annotated)

448. As I have annotated below, a POSITA would understand that the first/second back wheel support frames are rotated with respect to the first and

second upper tube support frames (red).



EX1048, Liao, Figs. 4-5 (Annotated)

449. As I explained in limitations [10.3]/[10.4] above, a POSITA would have understood Liao as teaching a stroller that could be folded for storage. I also discussed in limitations [10.3]/[10.4] that foldability was recognized as a "universal" or common feature in stroller designs prior to December 4, 2008. (See *e.g.*, EX1031, Holly Schultz Dec., ¶¶24-25, 29 and EX10–*The Baby Gizmo Buying Guide*, 282-286.) A POSITA would have therefore understood the "back wheel support frame" of Liao was designed to be rotatable with respect to the first/second "upper tube support frames" so that the stroller was foldable. A POSITA would have also understood the need to have the back wheel support frame fold so the stroller could be stored (e.g., within a car trunk) or transported easily. This was a common and well-known design choice.

450. My understanding is further confirmed by the Examiner's rejection in the related '417 Application. As I have highlighted below, the Examiner held Liao teaches a stroller frame that can be adjusted between a folded and unfolded configuration. The Examiner held Liao's "back wheel support portion" was part of the frame that could be rotated (*i.e.*, adjusted) between the folded and unfolded configurations. (EX1024, '417 File History, 1203.) It is my understanding the Patent Owner did not rebut the Examiner's finding that Liao teaches a foldable (*i.e.*, rotatable) stroller frame. (EX1024, '417 File History, 1394.) While the terminology is slightly different, the Examiner clearly recognized Liao's frame, including the back wheel support frame, is capable of being folded for storage or transportation.

14. **Claims 2-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao (US D593,459).**

[Claim 2] Regarding Claim 2, Liao discloses: A convertible stroller (See, e.g., Fig. 1-13) configured for being converted from a single stroller to a double stroller (See, e.g., Fig. 1-13), the stroller comprising: a stroller frame (See, e.g., Fig. 1-13) configured for being adjusted between a folded configuration and an unfolded configuration (See, e.g., Fig. 1-13), the stroller frame comprising: a handle portion (See, e.g., Fig. 1-13); a front wheel support portion (See, e.g., Fig. 1-13); and a back wheel support portion (See, e.g., Fig. 1-13); and at least one front wheel secured to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13); two rear wheels secured to the stroller frame's back wheel support portion (See, e.g., Fig. 1-13); a first seat (See, e.g., Fig. 1-13) removably attached to the stroller frame (See, e.g., Fig. 1-13); one or more seat attachment portions removably attached to the stroller frame (See, e.g., Fig. 1-13); and a second seat (See, e.g., Fig. 1-13) removably attached to the one or more seat attachment portions (See, e.g., Fig. 1-13) and positioned in front of the first seat (See, e.g., Fig. 1-13); wherein at least one of the first seat and the second seat is configured for being removably attached to the stroller frame in a forward-facing configuration and a backward-facing configuration (See, e.g., Fig. 11-12); and wherein the first seat and the second seat are positioned such that a center of gravity of the stroller is between the at least one front wheel and the plurality of back wheels (See, e.g., Fig. 1-13).

Claim 2 is amended to clarify that "at least one front wheel [is] secured directly to the front wheel support portion," and "a first seat attachment portion [is] removably attached directly to the stroller frame." Liao does not teach or suggest at least these elements of claim 2.

In particular, with reference to representative FIG. 5 of Liao (reproduced below), the alleged seat attachment portion of Liao is not attached directly to the stroller frame. If the handle portion of Liao is considered the stroller frame, to which the rearmost of the front wheels is coupled, the alleged seat attachment portion is not directly attached to the stroller frame. Instead, the alleged seat attachment portion appears to be coupled to a separate discrete component that is coupled to the frontmost front wheels.

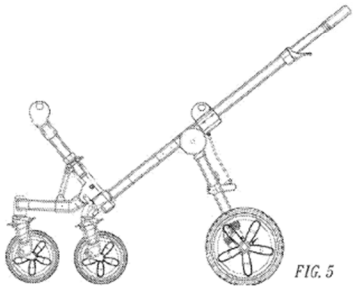


FIG. 5

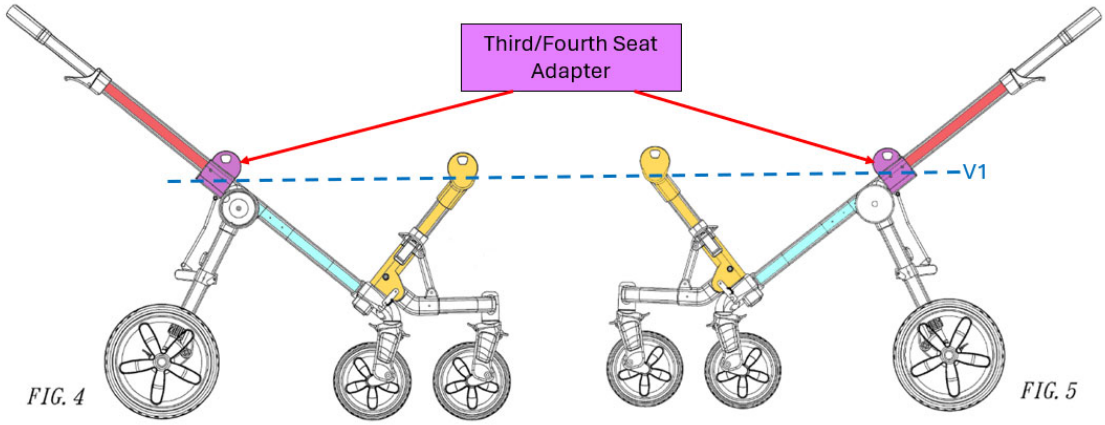
As a result, Liao does not teach or fairly suggest each and every element of claim 2. Reconsideration and allowance of claims 2-16 is therefore respectfully requested.

EX1024, '417 File History, 1203, 1394

451. Therefore, it is my opinion that Liao discloses or renders obvious limitations [10.5] and [10.6].

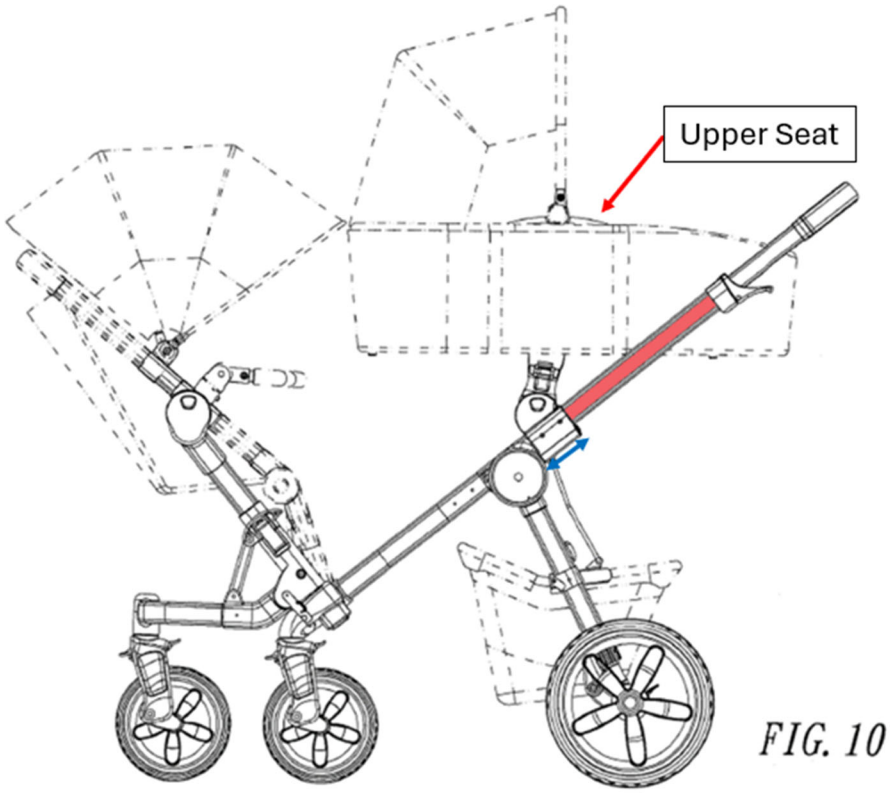
… ***[11.0] The stroller of claim 10, wherein the first seat is coupled along the first upper tube support frame and the second upper tube support frame,***

452. Liao shows two coupling mechanisms (one on each upper support frame) to attach the upper seat to the stroller. (EX1048, Liao, Figs. 4-5.)



EX1048, Liao, Figs. 4-5 (Annotated)

453. Figures 8–13 of Liao illustrate various seats and attachments that can be coupled to Liao's upper tube support frame. For instance, Figure 10 illustrates a baby bassinet being coupled along (blue arrow) the upper support frames (red).



Ex.1048, Liao, Fig. 10 (Annotated)

454. Again, during prosecution of the related '417 Application, the Examiner confirmed my understanding that Liao teaches both a "first seat" and a "second seat" attached to Liao's stroller frame. (EX1024, '417 File History, 1203.) The Examiner further found (based on pending dependent claims) that Liao teaches a "first seat" removably attached to "seat attachment portions" which are located adjacent the "handle portion."

14. **Claims 2-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao (US D593,459).**

[Claim 2] Regarding Claim 2, Liao discloses: A convertible stroller (See, e.g., Fig. 1-13) configured for being converted from a single stroller to a double stroller (See, e.g., Fig. 1-13), the stroller comprising: a stroller frame (See, e.g., Fig. 1-13) configured for being adjusted between a folded configuration and an unfolded configuration (See, e.g., Fig. 1-13), the stroller frame comprising: a handle portion (See, e.g., Fig. 1-13); a front wheel support portion (See, e.g., Fig. 1-13); and a back wheel support portion (See, e.g., Fig. 1-13); and at least one front wheel secured to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13); two rear wheels secured to the stroller frame's back wheel support portion (See, e.g., Fig. 1-13); a first seat (See, e.g., Fig. 1-13) removably attached to the stroller frame (See, e.g., Fig. 1-13); one or more seat attachment portions removably attached to the stroller frame (See, e.g., Fig. 1-13); and a second seat (See, e.g., Fig. 1-13) removably attached to the one or more seat attachment portions (See, e.g., Fig. 1-13) and positioned in front of the first seat (See, e.g., Fig. 1-13); wherein at least one of the first seat and the second seat is configured for being removably attached to the stroller frame in a forward-facing configuration and a backward-facing configuration (See, e.g., Fig. 11-12); and wherein the first seat and the second seat are positioned such that a center of gravity of the stroller is between the at least one front wheel and the plurality of back wheels (See, e.g., Fig. 1-13).

[Claim 4] Regarding Claim 4, Liao discloses: wherein the first seat is positioned substantially over the two rear wheels (See, e.g., Fig. 11-12).

[Claim 5] Regarding Claim 5, Liao discloses: wherein the first seat is positioned adjacent to the stroller frame's handle portion (See, e.g., Fig. 11-12).

[Claim 10] Regarding Claim 10, Liao discloses: wherein the one or more seat attachment portions comprise one or more first seat attachment portions and the stroller further comprises one or more second seat attachment portions connected to the stroller frame (See, e.g., Fig. 1-13); and wherein the first seat is removably attached to the one or more second seat attachment portions (See, e.g., Fig. 1-13).

[Claim 11] Regarding Claim 11, Liao discloses: wherein the one or more first seat attachment portions are removably attached to the stroller frame's front wheel support portion (See, e.g., Fig. 1-13), and wherein the one or more second seat attachment portions are connected to the stroller frame adjacent to the frame's handle portion (See, e.g., Fig. 1-13).

EX1024, '417 File History, 1203-1205

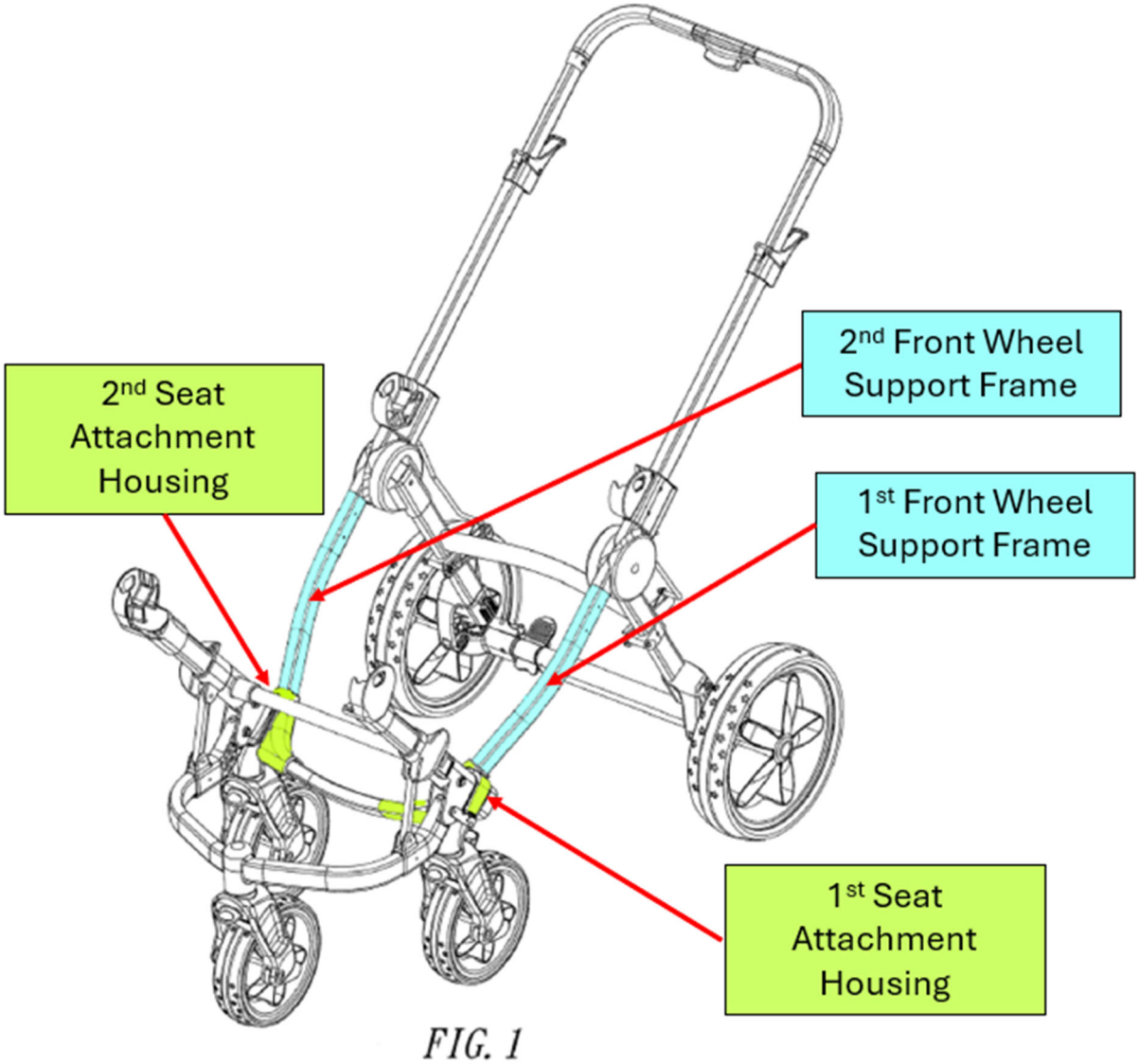
455. Therefore, it is my opinion that Liao discloses or renders obvious limitation [11.0].

> … ***[11.1] wherein the first seat attachment housing is coupled to the first front wheel support frame, and wherein the second seat attachment housing is coupled to the second front wheel support frame.***

456. I have addressed much of this limitation in my discussion related to Ground 2, limitations [1.4]–[1.5].

457. Again, each of Liao's figures illustrate "first and second seat attachment housings[s]" (green). Liao illustrates the "first seat attachment housing" "coupled to" the "first front wheel support frame" (blue). Liao further illustrates

the "second seat attachment housing" "coupled to" the "first front wheel support frame" (blue). A POSITA would understand Liao's front wheel support frames (blue) are inserted into and coupled within the housings, ensuring the frames are securely and rigidly held in place.



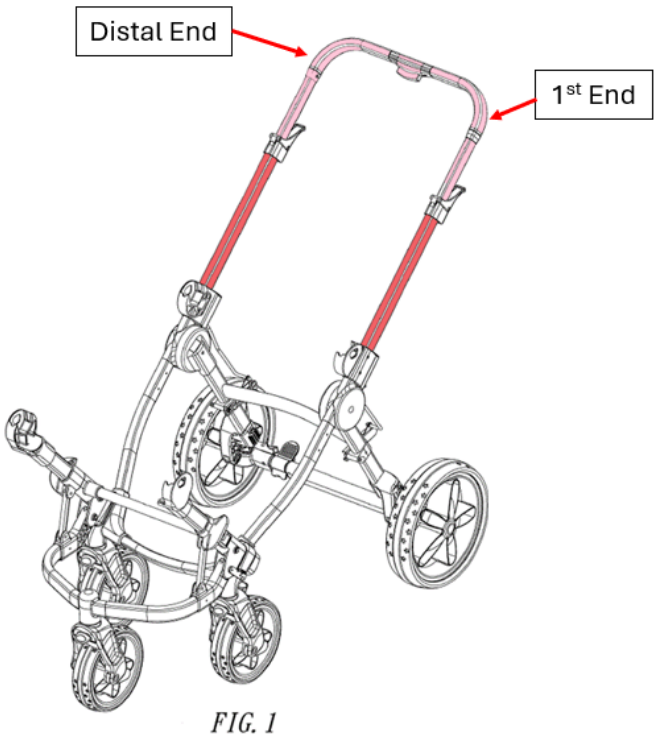
EX1048, Liao, Fig. 1 (Annotated)

458. Therefore, it is my opinion that Liao discloses or renders obvious

limitation [11.1].

… ***[12.0] The stroller of claim 10, further wherein the handle portion comprises a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame.***

459. The pushchair frame of Liao has a handle (pink) 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). This is consistent with the proposed construction where "handle portion" is the "portion of frame coupled to the upper ends of the left and right upper tube support frame."



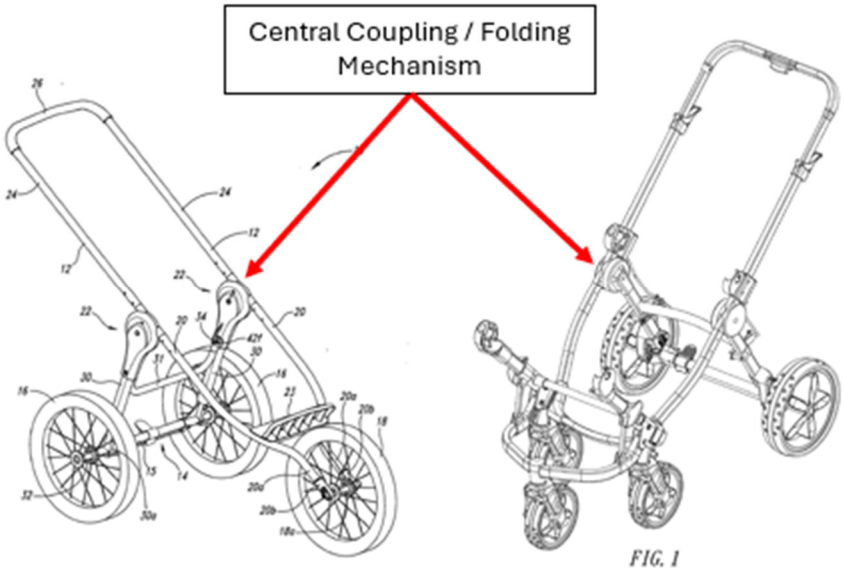
EX1048, Liao, Fig. 1 (Annotated)

460. In the '417 Application, the Examiner confirmed that "Liao discloses: … the stroller frame comprising: a handle portion[.]" (EX1024, 1203, claim 2.)

461. Therefore, it is my opinion that Liao discloses or renders obvious limitation [12.0].

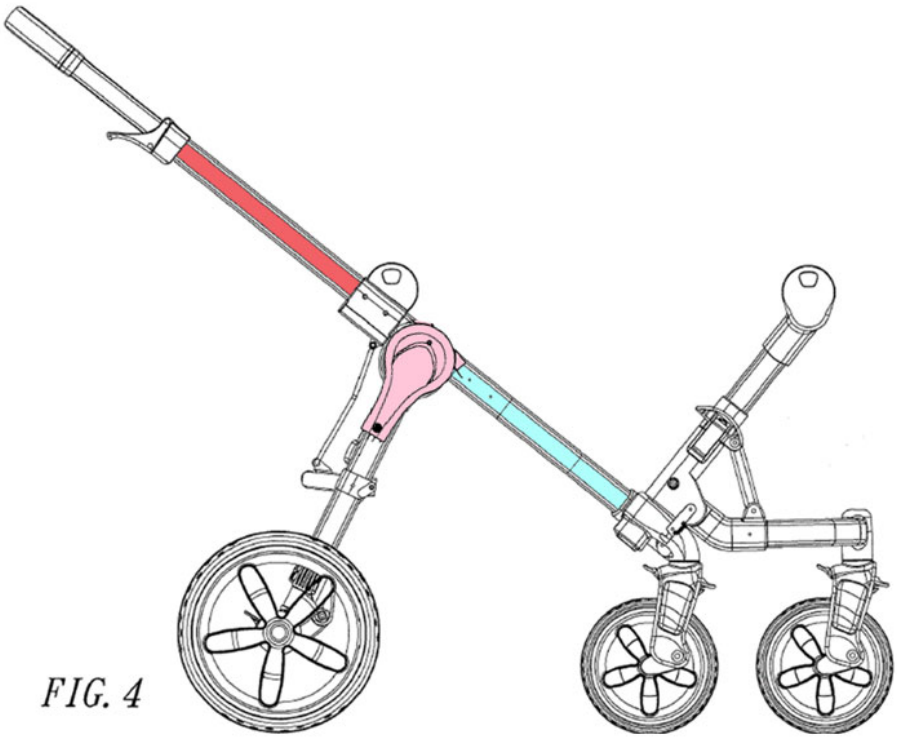
1. Rational to combine Liao and Cheng.

462. Liao and Cheng are both in the field of baby strollers. (EX1048, Liao, CLAIM; EX1049, Cheng, ¶0003.) Both Liao and Cheng also disclose frame designs for the baby strollers. In fact, both Liao and Cheng disclose a same frame structure of the baby stroller. As shown in the below images, Liao and Cheng have upper frame members connected with the handle, front wheel frame members, and back wheel frame members that are all joined at a central coupling, e.g., a folding mechanism. (EX1048, Liao, Fig. 1; EX1049, Cheng, ¶0040, Fig. 2.)



EX1049, Cheng, Fig. 2; EX1048, Liao, Fig. 1 (Both Annotated)

463. To the extent that Liao does not already disclose folding mechanisms, it would have been obvious to add the folding assemblies 22 of Cheng to Liao. A POSITA would have understood that, given the similarities in frame structure, the folding assemblies 22 of Cheng could have been added to Liao in place of the illustrated coupling. As shown below, it would have been obvious to add Cheng's folding assembly 22 (pink) to the frame of Liao,[22] allowing the upper frame structure (red) to fold relative to the front wheel frame structure (blue).



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

[22] Assuming, of course, that Liao does not fold, which is not my opinion.

464. A POSITA would have understood how to modify Liao to include the folding assembly of Cheng. Cheng's folding mechanism 22 already includes three connections, connection 40'' for the upper frame member 24, connection 40' for the front wheel frame member 20, and connection 42a for the back wheel frame member 30. (See *e.g.*, EX1049, Cheng, Fig. 8 and ¶0052.) These connection points correspond to the frame components shown in Liao. A POSITA would have understood the folding assembly 22 could have been attached to the upper tube support frame, the front wheel support frame, and the back wheel support frame of Liao in the same way as disclosed in Cheng (and just like the illustrated circular coupling of Liao) with little to no modification. (See Overview of Cheng section, ¶233.) Adding the folding assembly 22 of Cheng to Liao would have predictably resulted in Liao being foldable between folded and unfolded positions as disclosed in Cheng. (See Overview of Cheng section, ¶234.) A POSITA would have understood that folding assembly 22, once added to Liao, would have allowed the upper tube support frames (red) to be rotated downwardly toward the rear wheel support frame (brown) and the front wheel support frames (blue) to be rotated rearwardly to fold the pushchair into a compact package like that shown in Figure 6 of Cheng.

465. A POSITA would have been motivated to add the folding assembly 22 of Cheng to Liao because they would have understood strollers are bulky items

that can be difficult to fit in one's vehicle and take up substantial storage space in one's home or garage. (EX1031, Hollie Schultz Dec., EX10–*The Baby Gizmo Buying Guide*, 284.) A POSITA would have understood that being able to fold the stroller into a more compact footprint when not in use is beneficial for transporting the stroller, *i.e.*, fitting the stroller within one's vehicle and taking up less storage space. These are important attributes for consumers. As such, a POSITA would have been motivated to add the folding assembly 22 of Cheng to the frame of Liao to enable folding of the pushchair when not in use.

466. A POSITA would have been particularly motivated to add the folding assembly 22 of Cheng to Liao (as opposed to other known types of folding mechanisms) because the folding mechanism 22 of Cheng is specifically designed for a three-way coupling between the upper frame members, the front wheel frame members, and the rear wheel frame members. That is, Cheng's folding mechanism fits with the overall frame design of Liao without requiring modification to the overall frame structure.

467. Replacing the illustrated couplings of Liao with the folding assemblies 22 of Cheng is merely the substitution of one known three-way coupling for another. As I explained above, both Liao and Cheng disclose three-way couplings. The only difference between these couplings is that Liao is a design patent, and the issued specification of Liao did not explicitly state that the

illustrated couplings include folding mechanisms. From Cheng, a POSITA would have understood that foldable assemblies for strollers were known. Given the above-described structural similarities of the couplings disclosed in Liao and Cheng, a POSITA would have known that the folding assemblies 22 could have been substituted for the couplings illustrated in Liao wholesale. The folding assemblies 22 of Cheng would operate in the same manner when installed on Liao as they did in Cheng. Therefore, the substitution would have predictably resulted in Liao's stroller being foldable and the substitution would have had a high expectation of success.

D. Ground 4 – Claims 1–16 are obvious over Offord '341 in view of Offord '797.

… ***[1.0] A stroller, comprising:***

468. Offord '341 discloses a "pushchair."

> This invention relates to apparatus for a vehicle and a method of using the vehicle, the vehicle being, in particular an **infant's pushchair**.

(EX1051, Offord '341, 1:4-6.)

> Referring to FIG. 14, two interface portion components 100 each … releasably mountable to the respective receptor cups 34 of the frame assembly 4, a downwardly curved bar 104, and two connector sockets 106 **for receiving two child-carrying units in the form of the seat 10 or infant car seats and carry-cots, or a combination thereof**.

(EX1051, Offord '341, 9:16-22.)

469. A POSITA would understand the disclosed "infant's pushchair" is another name for a "stroller." Offord '341 illustrates and teaches a POSITA that it is directed to a stroller.

> **Referring to FIG. 1, a vehicle 2 for transporting children comprises a frame assembly 4**, a plurality of ground-contacting wheels 6 attached to the frame assembly 4, and a handle 8 for grasping by the controller of the vehicle 2. The handle 8 is a substantially inverted U-shaped member telescopically attached to the frame assembly 4.

(EX1051, Offord '341, 5:45-50.)

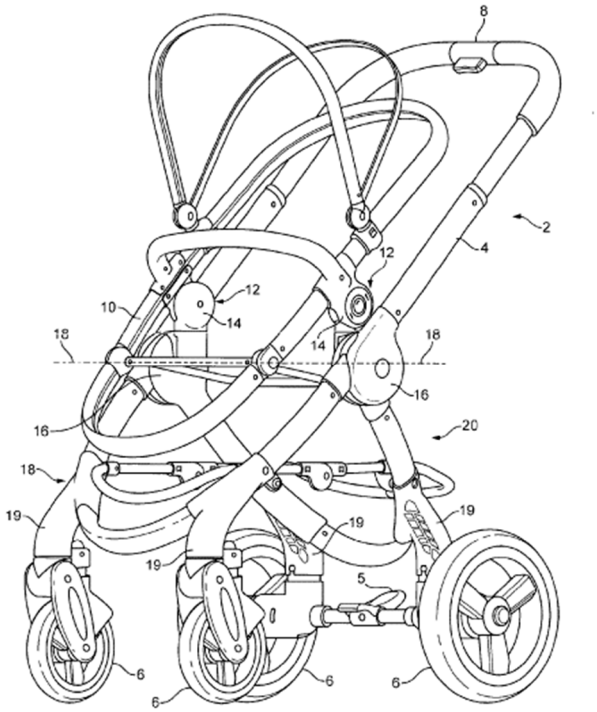


FIG. 1

EX1051, Offord '341, Fig. 1

470. Offord ’341 therefore discloses limitation [1.0].

… ***[1.1] a stroller frame comprising a handle portion and a front end portion;***

471. Offord ’341 discloses a “frame assembly 4” (*i.e.*, “stroller frame”[23]), including a handle 8 (*i.e.*, “handle portion”) shown in pink. Offord discloses how the “handle portion” is attached to the upper portion of the “frame assembly” (red).[24]

> Referring to FIG. 1, a vehicle 2 for transporting children comprises a **frame assembly 4**, a plurality of ground-contacting wheels 6 attached to the frame assembly 4, and **a handle 8 for grasping by the controller of the vehicle 2**. The **handle 8 is** a substantially inverted U-shaped member telescopically **attached to the frame assembly 4**.

(EX1051, Offord ’341, 5:45-50.)

[23] Portions are the stroller frame are colored in red, light blue, and brown. The details of these framed components are discussed in claims where each component is recited below.

[24] I use the stroller frame illustrated by Figures 13A and 13B to illustrate basic components of Offord’s stroller design. For these figures, I have removed the “adapter devices” to show just the stroller frame.

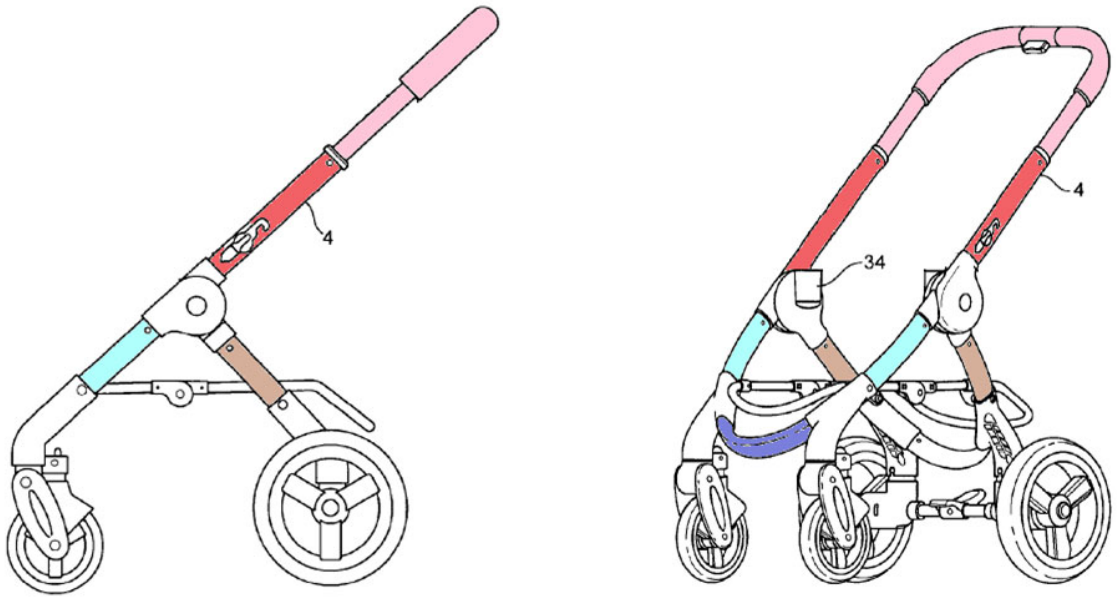


FIG. 13A FIG. 13B

EX1051, Offord '341, Figs. 13A-13B (Modified and Annotated)

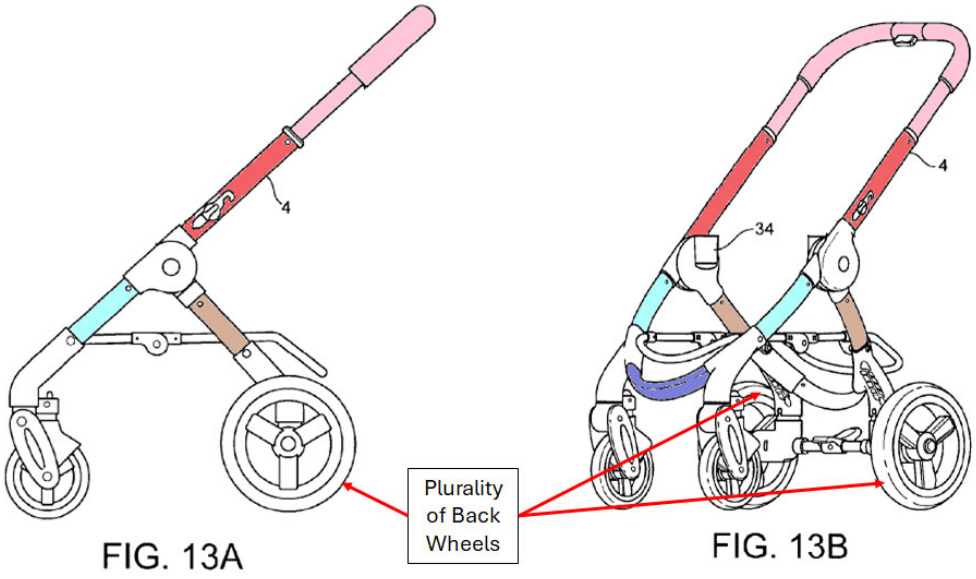
472. While not directly stated, Offord's frame 4 also includes what a POSITA would understand is a "front-end portion" (dark blue) as shown in the above annotated figure. But a POSITA would have understood the "front-end portion" could be the front-wheel "mouldings 19" which are attached to the lower frame portions.

473. Therefore, Offord '341 discloses limitation [1.1].

… ***[1.2] a plurality of wheels comprising a plurality of back wheels;***

474. Offord '341 discloses the stroller includes "a plurality of ground-contacting wheels 6 attached to the frame assembly 4" including "larger diameter rear wheels 6." (EX1051, Offord '341, 5:45-51.) As shown below, Offord '341

discloses two (plurality) of back wheels.



EX1051, Offord '341, Figs. 13A-13B (Annotated and Modified)

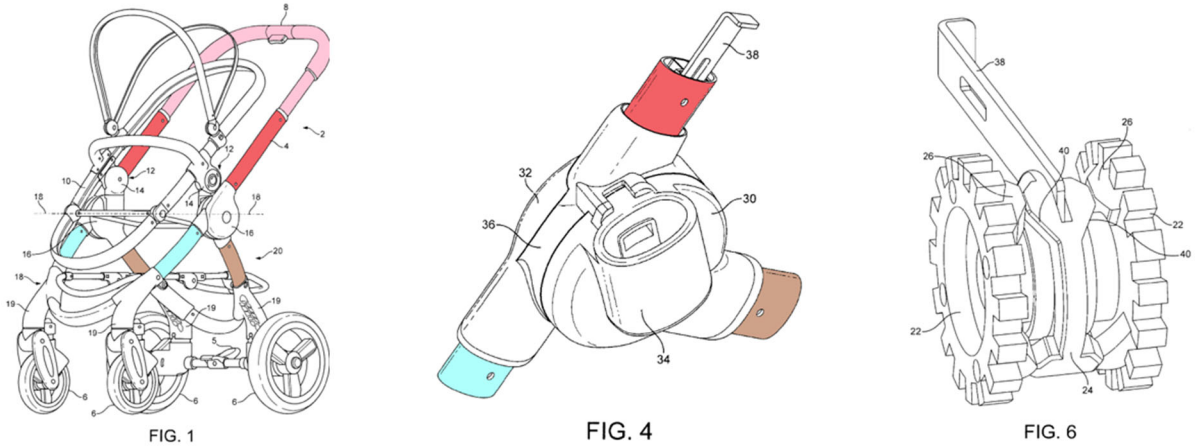
475. Therefore, Offord '341 discloses limitation [1.2].

… ***[1.3] a first seat coupled to the stroller frame at a first vertical position of the stroller frame, wherein the first seat is disposed closer to the handle portion than the front end portion of the stroller frame;***

476. Offord '341 discloses "seats 10" that can be releasably connected to the frame assembly 4. (EX1051, Offord '341, 9:53-56.) Offord '341 also discloses a unique hinge mechanism ("hinge device 16") and means for converting a stroller to a dual-seat configuration by attaching a removable sub-frame to the stroller frame at the hinge mechanism. (EX1051, Offord '341, 7:36-48; see also 6:13-36.)

477. In Figure 1, Offord '341 teaches a single-seat configuration. The

single seat 10 has a pair of "mounting devices 14" (one on each side of the seat) releasably coupled to a pair of "receptor cup[s] 34" that are located on "inner housing 30" of the stroller frame's "hinge device 16." (EX1051, Offord '341, 7:36-48.)



EX1051, Offord '341, Figs. 1, 4 (Both Annotated), and 6

Referring to FIG. 1, a vehicle 2 for transporting children comprises a frame assembly 4, a plurality of ground-contacting wheels 6 attached to the frame assembly 4, and a handle 8 for grasping by the controller of the vehicle 2. The handle 8 is a substantially inverted U-shaped member telescopically attached to the frame assembly 4. A foot brake 5 is fitted to act upon the larger diameter rear wheels 6. The vehicle also includes **a child-carrying unit in the form of a seat 10 releasably mounted to the frame assembly 4 at a pair of mounting regions 12 by way of a corresponding pair of mounting devices 14 connected to the frame of the seat 10**. The child-carrying unit may alternatively be an infant car seat or a carry-cot, for example.

(EX1051, Offord '341, 5:45-57.)

> A **receptor cup 34 attached to the inner housing 30 forms a part of the mounting region 12**. The inner housing 30 and the outer housing 32 are capable of rotational movement relative to a central housing 36 (shown in FIG. 4), which connects the upper portion of the frame assembly 4 incorporating the handle 8 to **the hinge device 16, the central housing itself being capable of rotational movement about the axis 18 relative to the inner and outer housings 30 and 32.**

(EX1051, Offord '341, 6:29-36.)

478. In a second embodiment, Offord '341 discloses a pair of "adaptor devices 90," which (like the first embodiment) include the "mounting device 14" releasably coupled to the pair of "receptor cups 34" located on the "inner housing 30" of the stroller frame's "hinge device 16." The upper end of the "adaptor devices 90" have "receptor cups" that releasably connect with the "mounting device 14" of the seat. As shown, the seat can then be elevated higher than the embodiment shown in Figure 1. As Offord '341 describes, elevating the seat as shown may be desirable for parents with new-born babies.

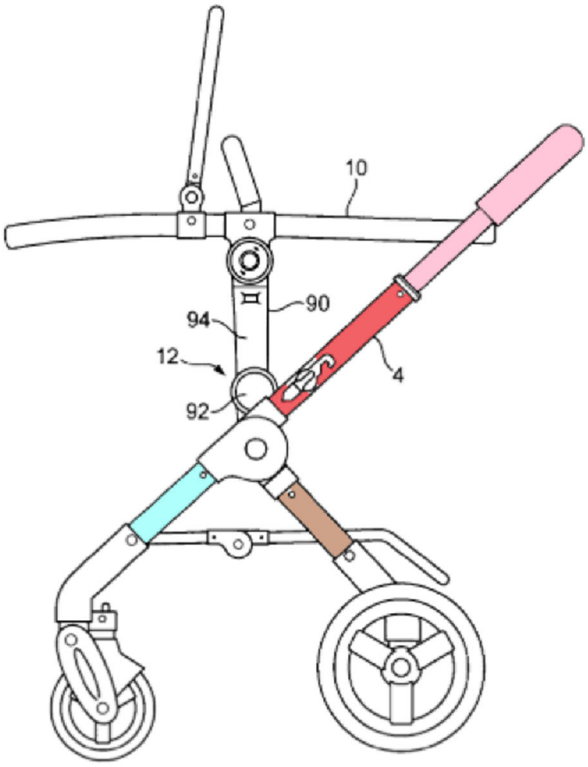


FIG. 13A

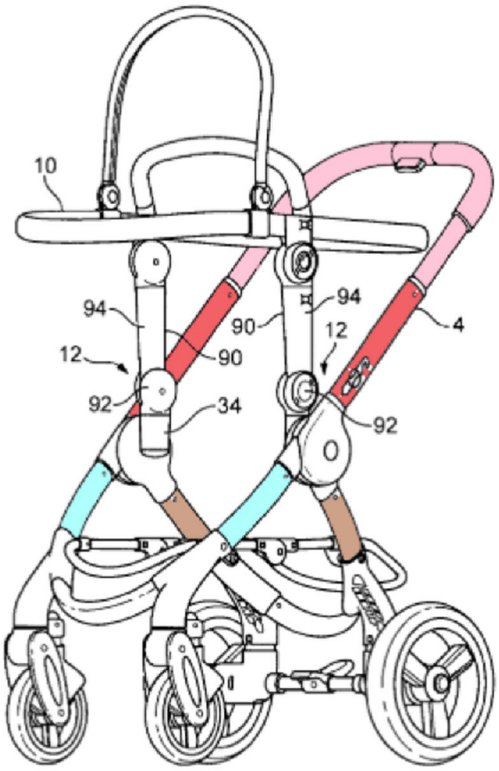


FIG. 13B

EX1051, Offord '341, Figs. 13A-13B (Annotated)

Referring to FIGS. 13*a* and 13*b*, the frame assembly 4 is provided at each of the mounting regions 12 with **an adaptor device 90**. The adaptor devices 90 comprise **a connecting leg (not shown) substantially identical to the connecting leg 48 of the mounting device 14 previously described, by way of which the adaptor devices 90 are releasably mounted to the receptor cups 34 of the frame assembly 4**, a central hub portion 92, which comprises a release button, and an elongate receiving portion 94 terminating at its upper end with a receptor cup, similar to the receptor cups 34 previously described. The elongate receiving portion 94 is at least twice the length of the connecting leg of the adaptor device 90 and

> extends substantially vertically upwardly. Utilisation of a pair of such adaptor devices 90 allows the child-carrying unit 10, especially one for a very young infant such as a new-born baby, to be raised to an elevated position if desired. This allows a parent using the frame assembly to be closer to the infant and also raises the infant from the lower level pollution zone created by exhaust fumes from motor vehicles.

(EX1051, Offord '341, 8:63-9:15.)

479. Offord '341 then discloses how the stroller frame can be converted from a single-seat to a double-seat configuration. Offord discloses a pair of "interface portion components 100" (shown below by Figure 14) each having a "connecting leg 102" which can be releasably coupled to the pair of "receptor cups 34" located on the "inner housing 30" of the stroller frame's "hinge device 16."

> Referring to FIG. 14, two interface portion components 100 each comprise a further **connecting leg 102 releasably mountable to the respective receptor cups 34 of the frame assembly 4**, a downwardly curved bar 104, and two connector sockets 106 for receiving two child-carrying units in the form of the seat 10 or infant car seats and carry-cots, or a combination thereof.

(EX1051, Offord '341, 9:16-22.)

480. Offord '341 teaches that when the pair of "interface portion components 100" are attached to the stroller, they are considered a "sub-frame of the frame assembly 4."

> When the **interface portion components 100 are attached to the frame assembly 4 they form a sub-frame of the frame assembly 4**, and when the child-carrying units are mounted thereon, one behind the other, they are in a compact echelon formation, one of the connector sockets 106 of each component 100 being at a higher level in relation to the ground than the other connector sockets 106. The higher connector socket 106 and further connecting leg 102 are both connected to respective opposite ends of an upper mounting piece 107.
>
> In addition, on the inner side of the lower connector sockets 106 there is a downwardly curved lug 108 which serves to rest upon a part of the basket frame 44, such that the weight of two infants is fully supported by the frame assembly 4. A similar sub-frame arrangement is disclosed in WO 2008/040797.

(EX1051, Offord '341, 9:23-36.)

481. The "interface portion components 100" also include a "downwardly curved bar 104" (dark green) with "connector sockets 106" (lime green) located at each end. A POSITA would understand the "connector sockets 106" have the same size and shape as the "receptor cups 34," as both removably receive the connecting "legs 48" of the "seats 10," as described with respect to the single-seat configuration.

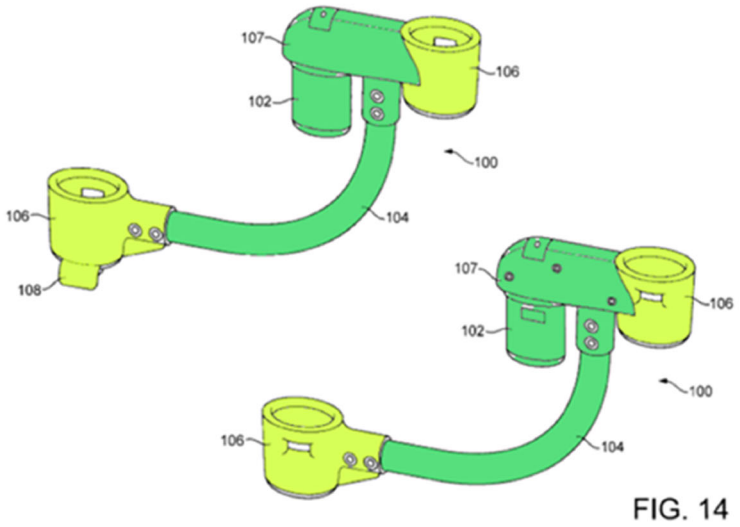


FIG. 14

EX1051, Offord '341, Fig. 14 (Annotated)

482. Offord '341 describes that when the "interface portion components 100" are installed to provide the dual-seat configuration, the first and second seats 10 are located at different heights due to the curved bar 104. Offord '341 states the offset between upper and lower sockets results in the seats being arranged in an "echelon formation."

> When the **interface portion components 100 are attached to the frame assembly 4 they form a sub-frame of the frame assembly** 4, and **when the child-carrying units are mounted thereon, one behind the other, they are in a *compact echelon formation*, one of the connector sockets 106 of each component 100 being at a higher level in relation to the ground than the other connector sockets 106**. The higher connector socket 106 and further connecting

leg 102 are both connected to respective opposite ends of an upper mounting piece 107.

(EX1051, Offord '341, 9:23-31.)

483. With reference to Figure 15, Offord '341 illustrates the "interface portion components 100" being installed onto the frame such that the seat closest the rear wheels is lower than the seat closest the front wheels.

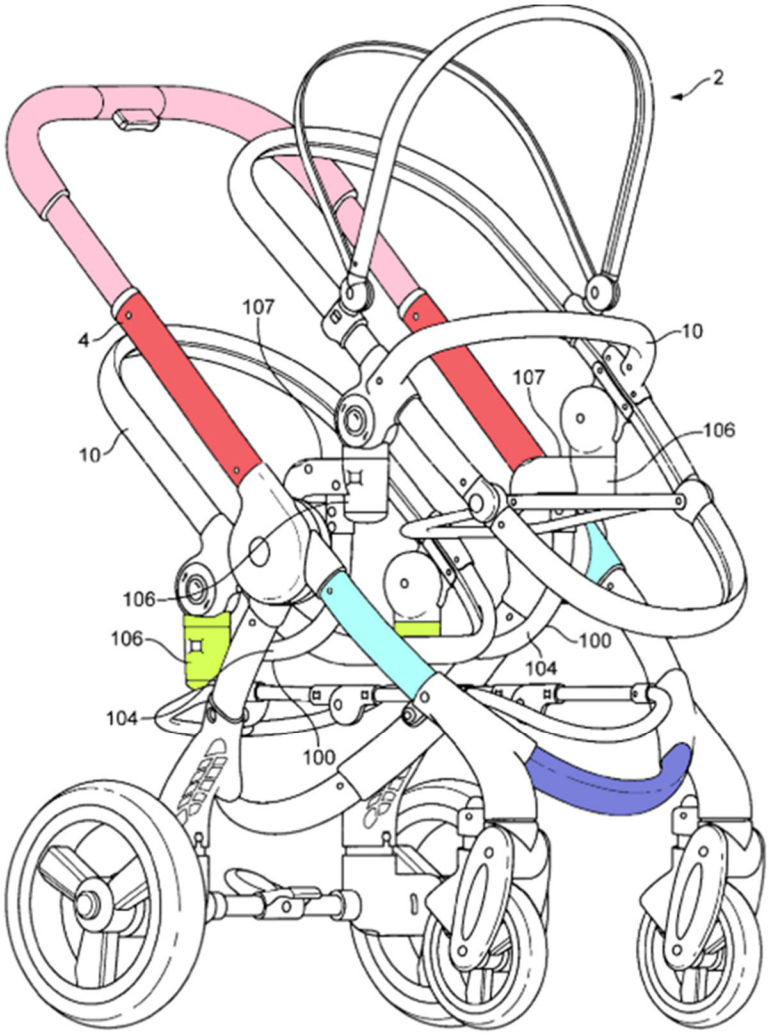


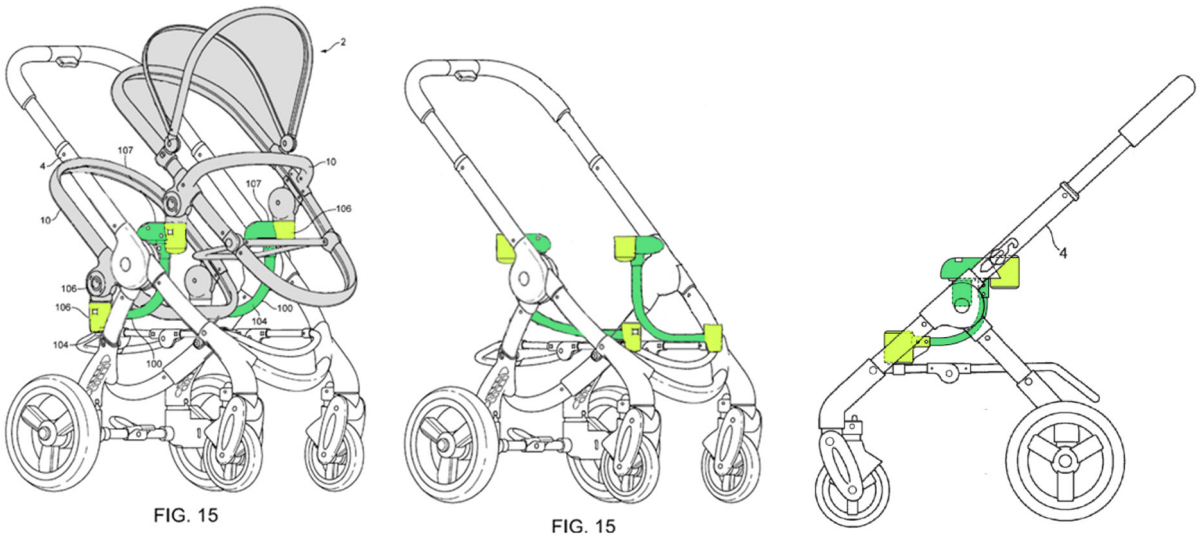
FIG. 15

EX1051, Offord '341, Fig. 15 (Annotated)

> FIG. 15 shows the components 100 mounted on the frame assembly 4 as a sub-frame assembly for the releasable mounting of two seats 10 in the connector sockets 106 in the echelon formation, one behind the other.

(EX1051, Offord '341, 9:53-56.)

484. But, a POSITA would have found it obvious that each "interface component 100" could be installed onto the opposite "receptor cup 34" of the frame shown. For instance, Figure 15 illustrates the first "interface component 100" being installed on the left-side "receptor cup 34" and the second "interface component 100" being installed on the right-side "receptor cup 34." A POSITA would understand the design and operation of the "receptor cups 34" would allow the first "interface component 100" to be turned around (*i.e.*, reversed) and installed on the right-side "receptor cup 34" and the second "interface component 100" to be reversed and installed on the left-side "receptor cup 34." This would predictively result in the below illustrated seating arrangement with the rear seat higher than the front seat:



EX1051 Offord ’341, Fig. 15 (left), Modified Fig. 15 (center), and Modified Fig. 13A (right) (All Annotated)

485. Figure 15 shows the “downwardly curved lug 108” resting on the rear portion of the “basket frame 44.” A POSITA would understand that in the reversed orientation of the “interface component 100,” the “curved lug 108” would now rest on the front portion of the “basket frame 44.”

> In addition, on the **inner side of the lower connector sockets 106 there is a downwardly curved lug 108 which serves to rest upon a part of the basket frame 44**, such that the weight of two infants is fully supported by the frame assembly 4. A similar sub-frame arrangement is disclosed in WO 2008/040797.

(EX1051, Offord ’341, 9:32-36.)

486. A POSITA would have understood based on Offord ’341 disclosure that the “interface portion components 100” were reversable. Moreover, Offord ’341 cites to one of his earlier patents stating, “[a] similar sub-frame arrangement

is disclosed in WO 2008/040797." (EX1051, Offord '341, 9:35-36.) A POSITA seeing this statement would be directed to review WO 2008/040797 ("Offord '797") to find out more about the disclosed "interface portion components 100." A POSITA, like me, would understand Offord '797 provides more details about an "interface portion" that allows a stroller to be modified as a double-seat configuration. A POSITA, like me, would have also been motivated to review the teachings of Offord '797 to determine if they could be applied to the teachings of Offord '341.

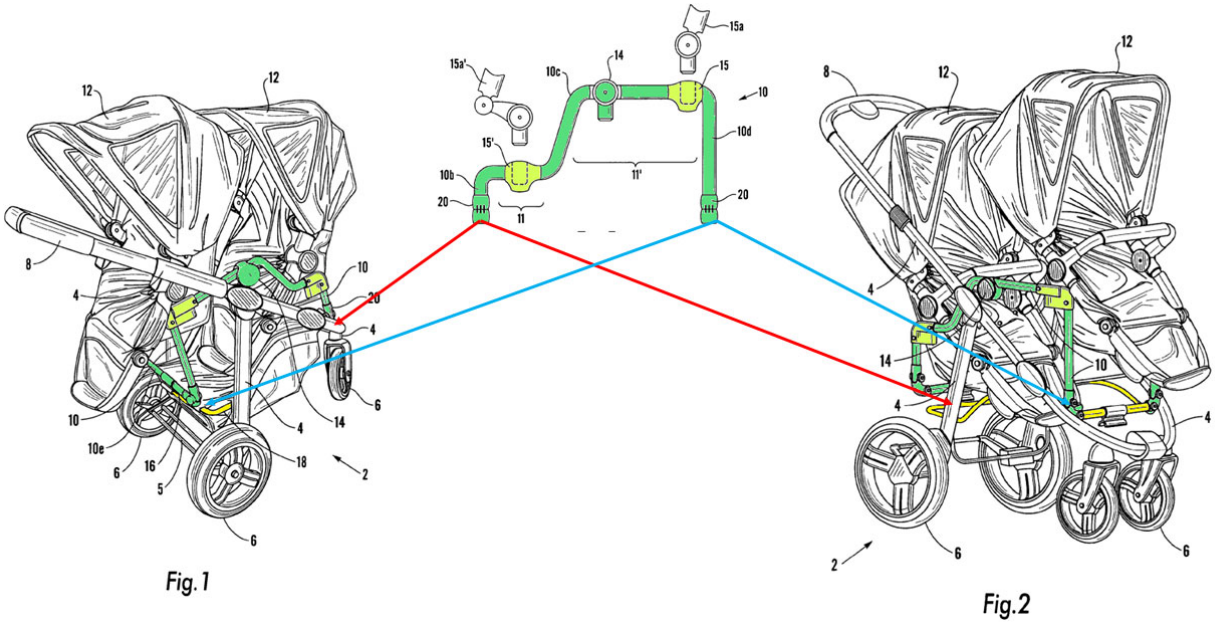
487. In reviewing Offord '797 (EX1054), I initially note it is an international patent filed by the same inventor, David Leslie Offord. Offord '797 also discloses a similar "interface portion 10" to that disclosed by Offord '341, for converting a single-seat stroller to a double-seat stroller configuration. Offord '797 even states this "interface portion 10" becomes a "sub-frame" assembly when installed on the stroller.

> The vehicle 2 also includes **an interface portion 10 which forms a sub-frame of the frame assembly 4** and which has mounted thereon, one behind the other, two child-carrying units in the form of seats 12 (with adjustable sun canopies).

(EX1054, Offord '797, 3:3-7.)

488. As I have annotated below, Offord '797 discloses the "interface portion 10" (dark green) includes "sockets 15" (light green) for receiving the

"adaptor piece 15a" from one of the two seats. (EX1054, Offord '797, 3:12-14, 3:34-4:4.) Offord '797 also discloses the "interface portion 10" can be rotated 180 degrees, which as shown, not only reverses the orientation of the seats, but also the vertical positioning of both seats. In Figure 1, the front seat is vertically lower than the rear seat. But in Figure 2 (when the interface portion is reversed), the rear seat is vertically positioned lower than the front seat.



EX1054, Offord '797, Figs. 1-2 and 5 (Annotated)

> Referring again to Figures 2 and 3, the interface portion 10 is dimensioned so as to be, when detached from the frame assembly 4, **turned through 180° about its central vertical axis** so that the seats 12 can, instead of being arranged in the rearward-facing configuration shown in Figure 1, be arranged in a forward-facing configuration.

(EX1054, Offord '797, 4:24-30.)

489. Offord ’797 even shows a side-view where the “interface portion 10” (dark green) is oriented so the front seat is vertically positioned lower than the rear seat.

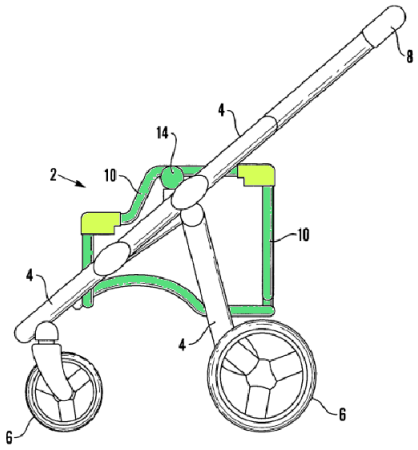


Fig.4

EX1054, Offord ’797, Fig. 4 (Annotated)

490. Thus, Offord ’797 explicitly teaches and would motivate a POSITA to reverse the orientation of the “interface portion connectors 100” relative their depiction in Figure 15.

491. A POSITA would understand that, if reversed, the “curved lug 108” would be positioned over the front portion of the “basket frame 44.” A POSITA would further recognize that the “curved lug 108” would still rest on the “frame 44” such that the weight of two infants is supported within each seat.

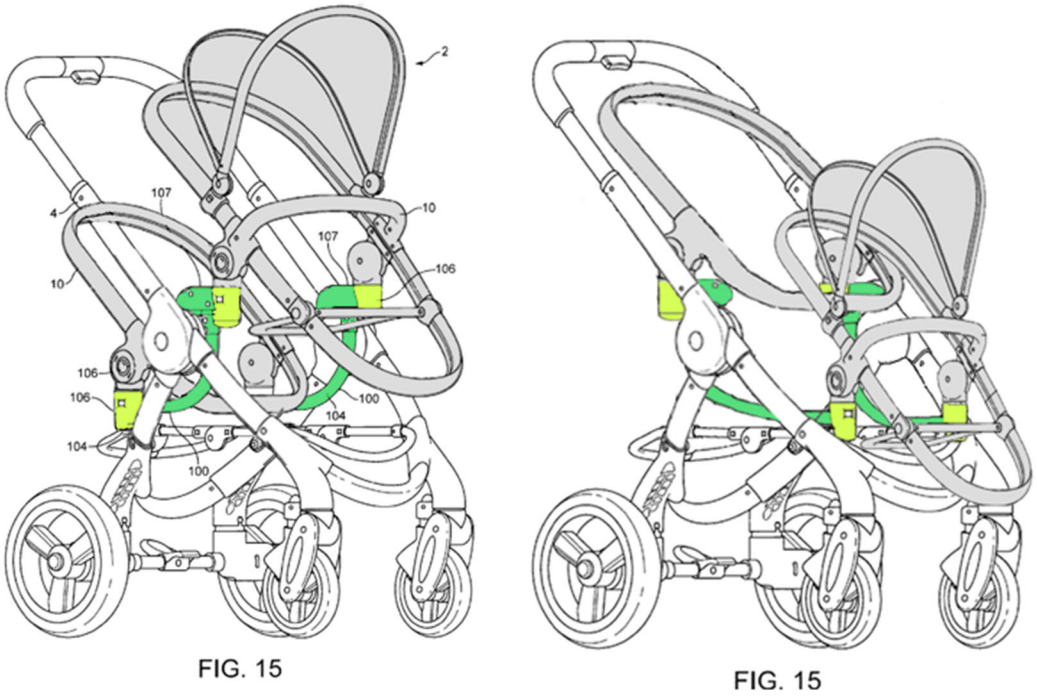
492. Second, a POSITA would have also understood each “leg 102” of “interface portion connectors 100” is compatible with either of the “receptor cups

34" allowing the "interface portion connectors 100" to be installed in either direction like the interface 10 disclosed in Offord '797.

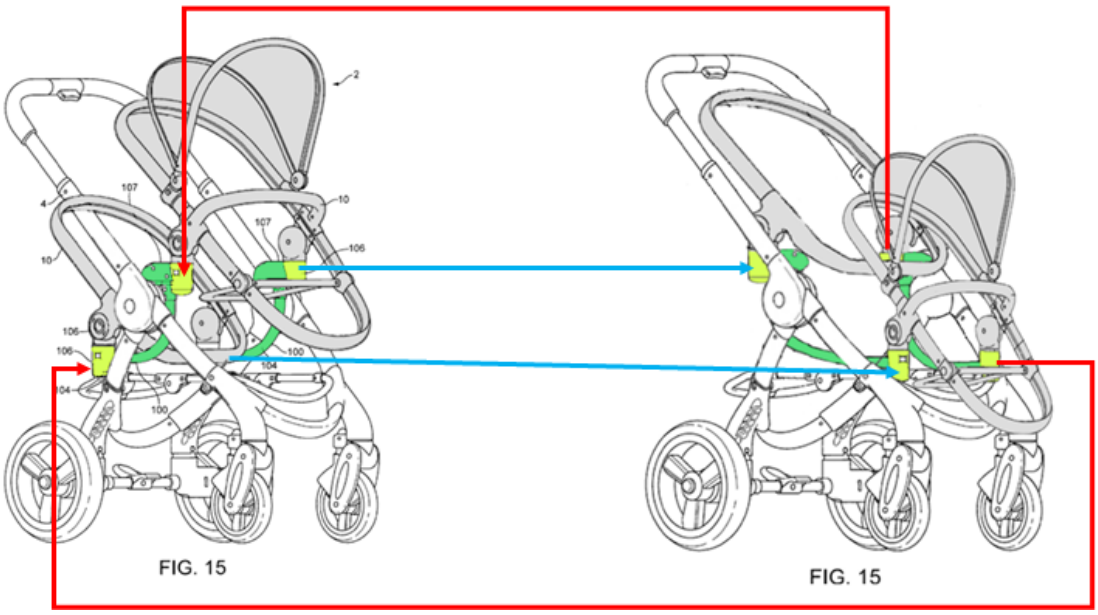
493. It is my opinion that a POSITA would have been motivated (especially given the teachings of Offord '797) to reverse the orientation of the "interface portion connectors 100" by placing each into the opposite "receptor cup 34," rather than positioning them as shown in Figure 15.

494. It is also my opinion that a POSITA would have understood the "interface portion connectors 100" could be reversed predictively and with a reasonable expectation of success. As I discussed above regarding claim 1, Offord '341 discloses the modularity of the "interface portion connectors 100" with the "cups 34" and detailed frame components. And, Offord '797 explicitly discloses a reversible sub-assembly 10. (EX1054, Offord '797, 4:24-30.)

495. As shown below, once the connectors are reversed and placed into the opposite receptor cups, the vertical positioning of the seats would also be reversed such that the rear seat would be positioned vertically above the front seat.



EX1051, Offord ’341, Fig. 15 (left) and Modified Offord ’341 Fig. 15 in view of EX Offord ’797 (right) (Both Annotated)



EX1051 Offord ’341, Fig. 15 (left) and Modified Offord ’341 Fig. 15 in view of Offord ’797 (right) (Both Annotated)

496. As is shown below, once reversed, Offord ’341 would further teach an upper “first” seat that is positioned (disposed) closer to the handle portion than the front end of the stroller. The first seat would be coupled to the stroller sub-frame (*i.e.*, “interface portion components 100” attached to frame) at the upper pair of “sockets 106” at a first vertical position (V1).

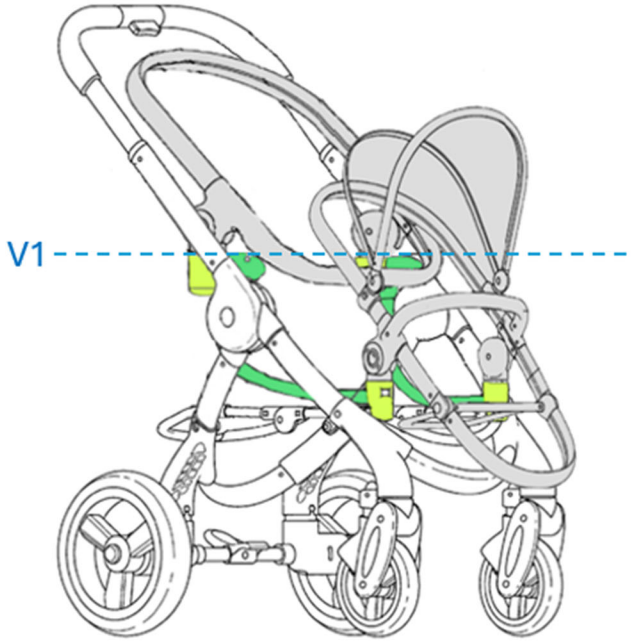
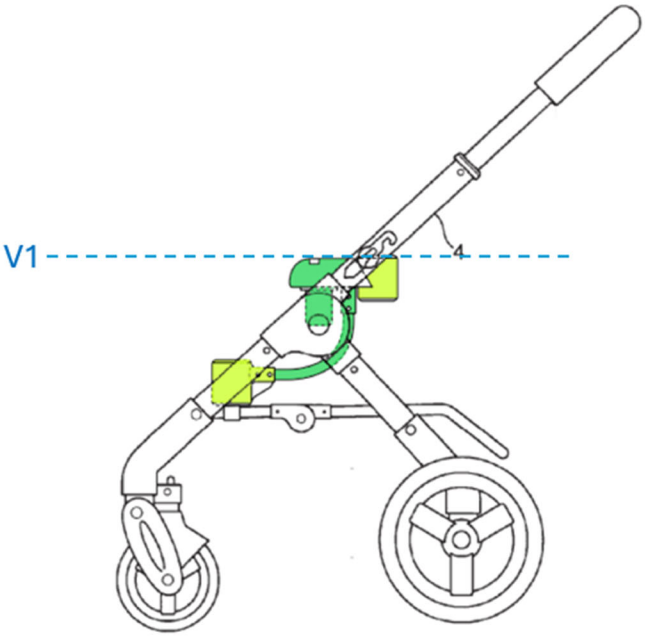


FIG. 15



EX1051 Offord ’341. Figs. 15 and 13A (Modified and Annotated)

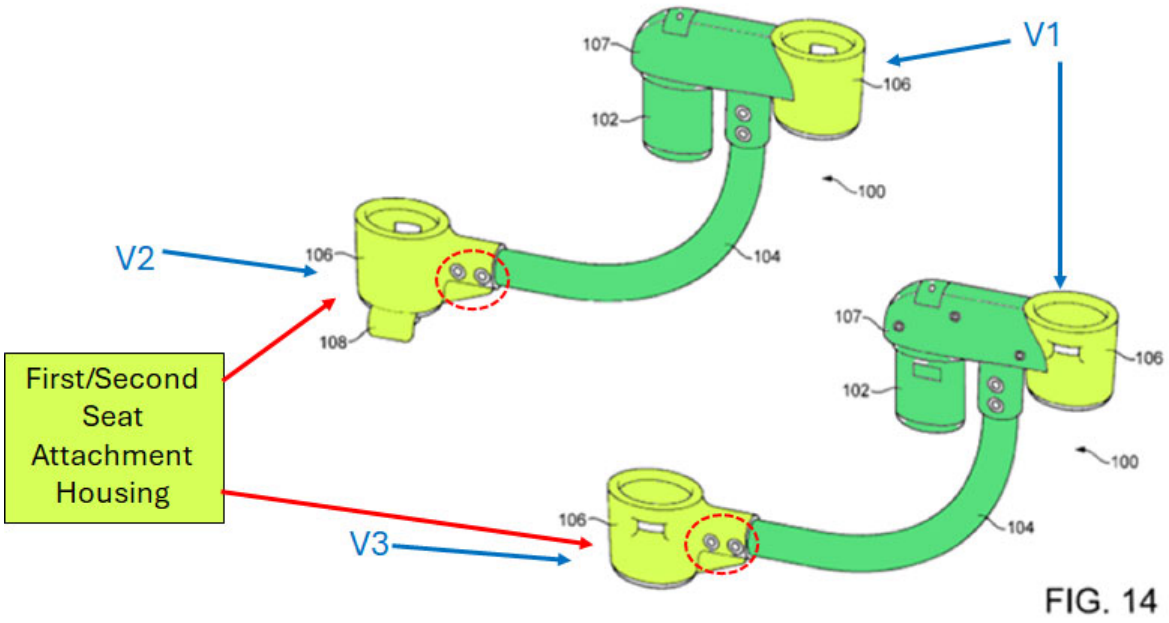
497. Once a POSITA re-orientates Offord ’341’s “interface portion

components 100," it would satisfy limitation [1.3].

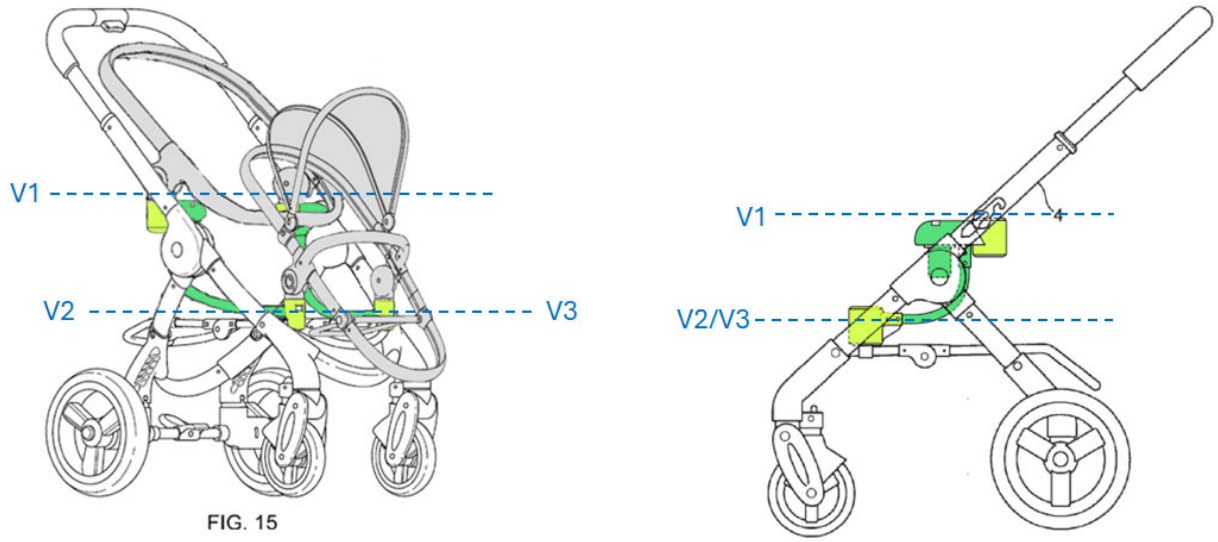
> … ***[1.4] a first seat attachment housing coupled to the stroller frame at a second vertical position of the stroller frame that is below the first vertical position, wherein a first front wheel and a second front wheel extend from the front end of the stroller;***
>
> … ***[1.5] a second seat attachment housing coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position, wherein the third vertical position is closer to the front end portion than the handle portion***

498. As I discussed above in claim limitation [1.3], the pair of "interface portion components 100" function as a subframe when coupled within the "receptor cup 34 attached to the inner housing 30[.]" (EX1051, Offord '341, 6:29-30.) A POSITA would understand that, once connected, these components would be considered part of the "stroller frame."

499. Each of the "interface portion components 100" has lower "connector sockets 106." The pair of "sockets 106" are hollow and configured to receive "legs 48" of the "seats 10." (EX1051, Offord '341, 9:53-61.) Therefore, a POSITA would consider the lower "connector sockets 106" to be the first/second "seat attachment housings" (light green).



EX1051, Offord '341, Fig. 14 (Annotated)



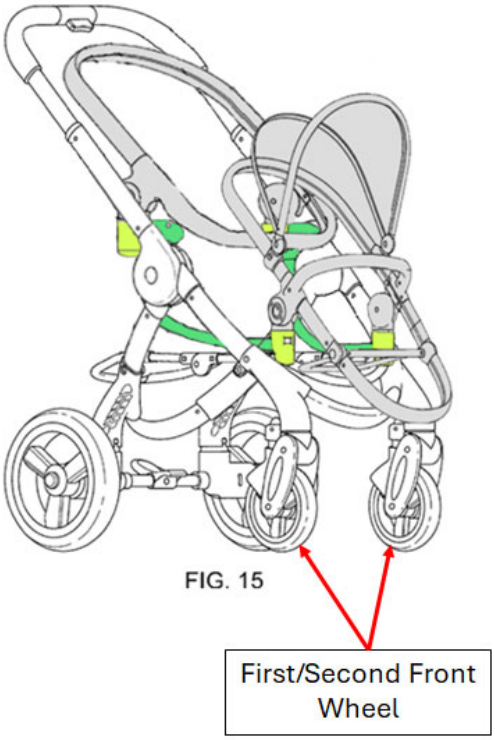
EX1051, Offord '341, Figs. 15 and 13A (Modified and Annotated)

500. The first/second "seat attachment housings" are also coupled to the "curved bar 104" (which is part of the "frame") by a pair of fasteners that I circled

in red in Figure 14 above. As I illustrate in Figures 13A and 15, the vertical positions (V2/V3) where the housings connect to the "bar 104" (which is part of the frame) are below the first vertical position (V1).

501. It is visually evident the third vertical position (V3) is closer to the front end portion than the handle portion when the subframe is attached to the frame assembly 4 in the reversed configuration discussed above.

502. Offord further discloses first and second front wheels 6. (Offord '341, 5:45-48.) Offord illustrates the front wheels 6 extending from the "common mouldings 19," which are the wheel housings at the front end portion (blue). (EX1051, Offord '341, 6:9-12.)



EX1051, Offord '341, Fig. 15 (Annotated)

> … ***[1.6] a first seat attachment adapter spaced from and coupled to the first seat attachment housing by a first attachment frame member; and***
>
> … ***[1.7] a second seat attachment adapter spaced from and coupled to the second seat attachment housing by a second attachment frame member;***

503. Each seat 10 includes first/second "mounting devices 14" located on both sides of the seat. These mounting devices are originally disclosed as being able to connect within the "receptor cups 34". (EX1051, Offord '341, 5:51-57, 8:63-9:2.) Offord '341 designed these "mounting devices" to be usable in the double seat configuration as well. Offord '341 teaches the "mounting devices 14" on the seats can be inserted into the "connector sockets 106" in the double seat configuration. (EX1051, Offord '341, 9:57-67.)

504. Offord '341 provides details of how the "mounting devices 14" include a first part 50 and a second part 54 that are pivotally connected. The second part 54 has a bracket 56 connected to a frame member of the seat 10. The first part 50 includes leg 48, used to connect the seat 10 to the stroller frame assembly 4.

> Referring to FIG. 9, the frame of the seat 10 comprises the **mounting devices 14**, portions of which are seen in FIG. 1**. The mounting devices comprise a connecting leg 48 for releasably mounting the seat 10 to the frame assembly 4, the connecting leg 48 being**

> **inserted into the receptor cup 34** of the inner housing 30 of the hinge device 16. **The connecting leg 48 is connected to a first part 50 of a rotatable hub assembly 52, also shown in FIG. 10**. A **second part 54 of the hub assembly 52 includes a bracket 56 for fixing to the frame of the seat 10, and is shown in FIG. 11**. The **first and second parts 50, 54 are rotatable relative to each other** upon actuation of an actuating device. The second part 54 comprises a single actuating region.

(EX1051, Offord '341, 7:36-48.).

505. Again, the legs 48 are designed to be received in the "connector sockets 106" (in the dual seat configuration) or the "receptor cups 34" (in the single seat configuration).

> The good stability of the vehicle 2 **in the double carriage arrangement** is also maintained by restricting the rotational movement of the mounting units 14, **the connector legs 48 being insertable in the connector sockets 106 of the interface portion components 100**.

(EX1051, Offord '341, 9:57-61.)

506. A POSITA would have considered each mounting device 14 to be a "seat attachment adapter" (gold). In other words, each seat includes a first/second "adapter."

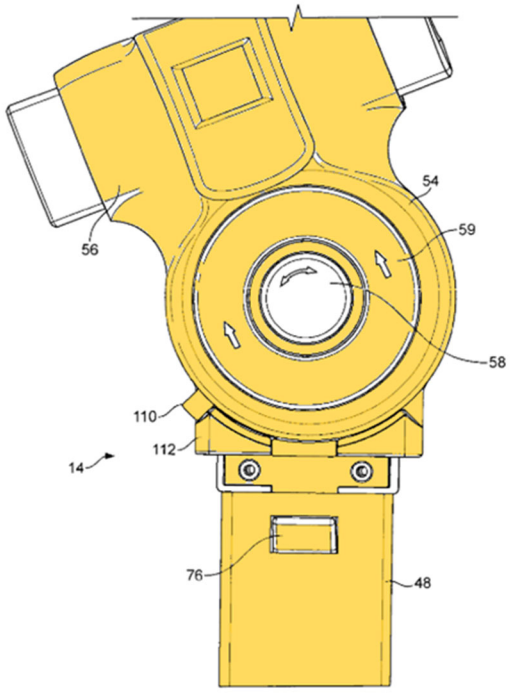


FIG. 16

EX1051, Offord ’341, Fig. 16 (Annotated)

507. A POSITA would understand the “adapters” of Offord ’341 are “spaced from and coupled to the … housing[s].” For instance, the leg 48 of the seat “mounting device 14” (“adapter”) is inserted into a “connector socket 106” (“housing”) to attach the seat 10. (EX1051, Offord ’341, 9:57-61.) A POSITA would necessarily understand there would be some spacing within the “connector socket 106” to allow the leg 48 to be inserted. Without the spacing, the leg 48 could not be inserted.

508. A POSITA would have further considered each leg 48 to be an “attachment frame member” (outlined in red), as the leg 48 projects downwardly from the main portion of the “mounting device 14” and is received in a

corresponding one of the "connector sockets 106" to attach the seat 10.

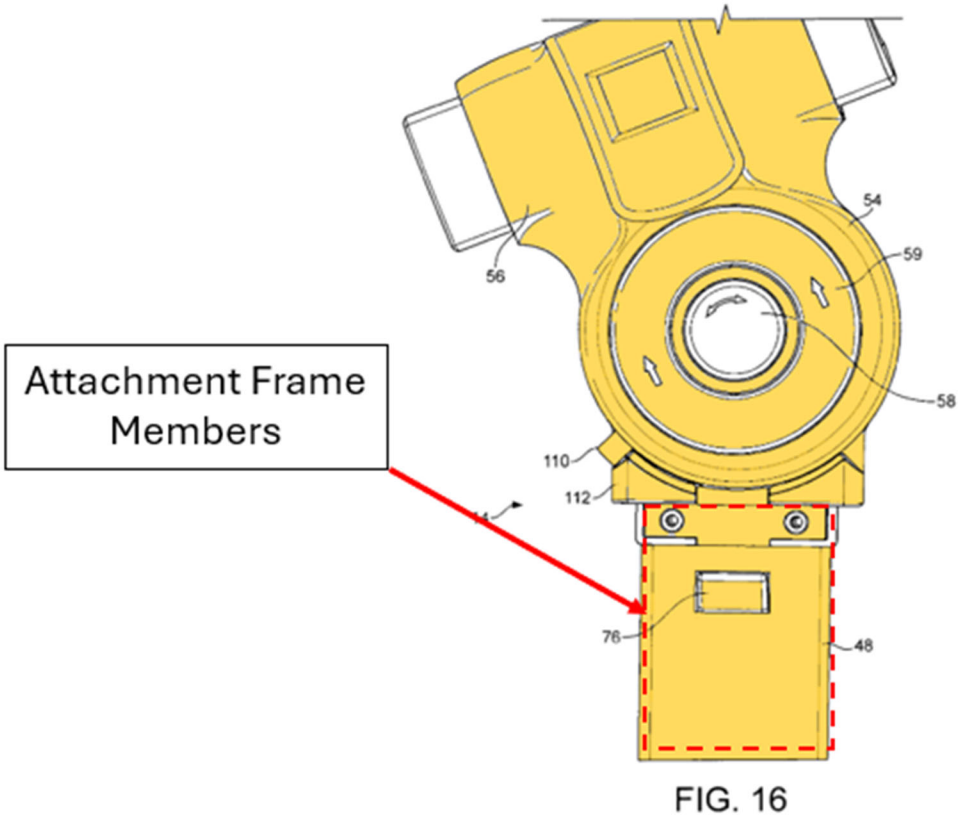


FIG. 16

EX1051, Offord '341, Fig. 16 (Annotated)

509. A POSITA would have also understood Offord '341 teaches the adapter having a first/second "detent 76" (one located on each adapter) that engages with an opening on the "connector sockets 106" or "receptor cups 34." The "detent 76" ensures the first/second adapters are securely coupled to the "connector sockets 106" / "receptor cups 34."

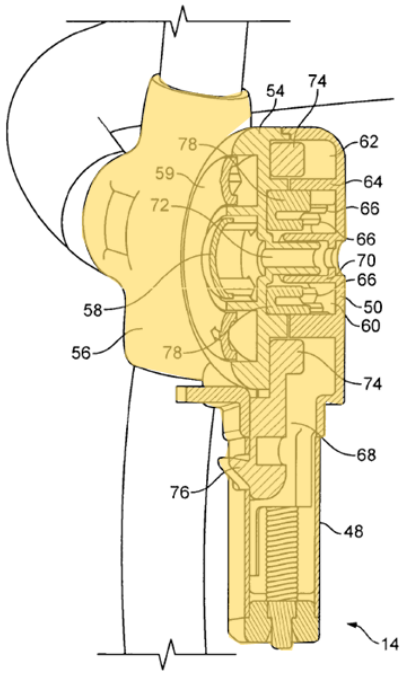
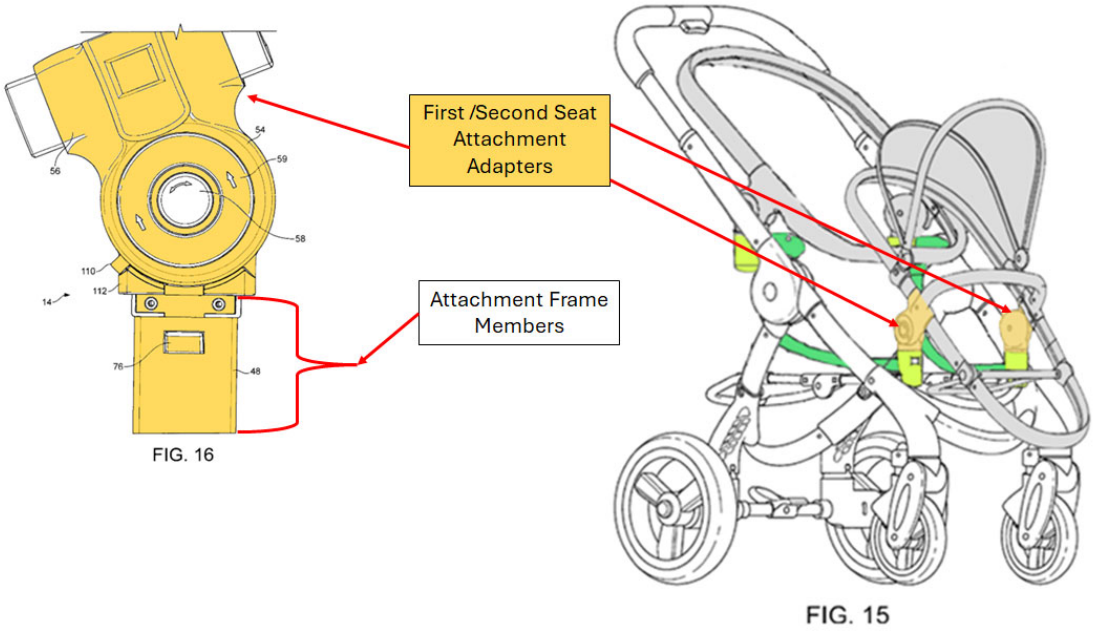


FIG. 12

Referring specifically again to FIG. 12, when the ring-form button 59 of the single actuating region, which operates the releasing of the mounting device 14, is depressed inwardly of the mounting device 14, legs similar to those of the central button 58 project through holes in the base of the outer annular channel 62′ and impinge upon the surface of the key-shaped element 74. **When the ring-form button 59 is fully depressed, the detent 76 is retracted back through the hole in the connecting leg 48 from its normal locking position to a retracted releasing position within the substantially straight channel 68, allowing the connecting leg 48 to be removed from the receptor cup 34 and removal of the seat 10 from the frame assembly 4**.

EX1051, Offord ’341, Fig. 12 (Annotated), 8:27-39

510. Therefore, a POSITA would have understood the left and right “mounting devices 14” of the lower front seat as disclosing the claimed first and second “adapters” which include the first and second “attachment frame members.” When installed in the “connector sockets 106,” the frame members would provide spacing from the “housings.” The adapters’ “detent” also ensure coupling with the first/second “housings.”



EX1051, Offord '341, Figs. 15 (Modified) and 16 (Both Annotated)

… ***[1.8] wherein the first seat and the second seat, when connected to the frame, are arranged in an inline descending configuration along the stroller frame.***

511. As I discussed in claim limitation [1.3], the sub-frame has two "interface portion components 100" that collectively have two upper "connector sockets 106" for attaching a first seat and two lower "connector sockets 106" for attaching a second seat. Offord discloses that the height difference and lateral spacing created by the curved bar 104 places the two seats "one behind the other, in an echelon formation, on a vehicle frame assembly" (EX1051, Offord '341, 9:16-22; see also 3:65-4:1.)

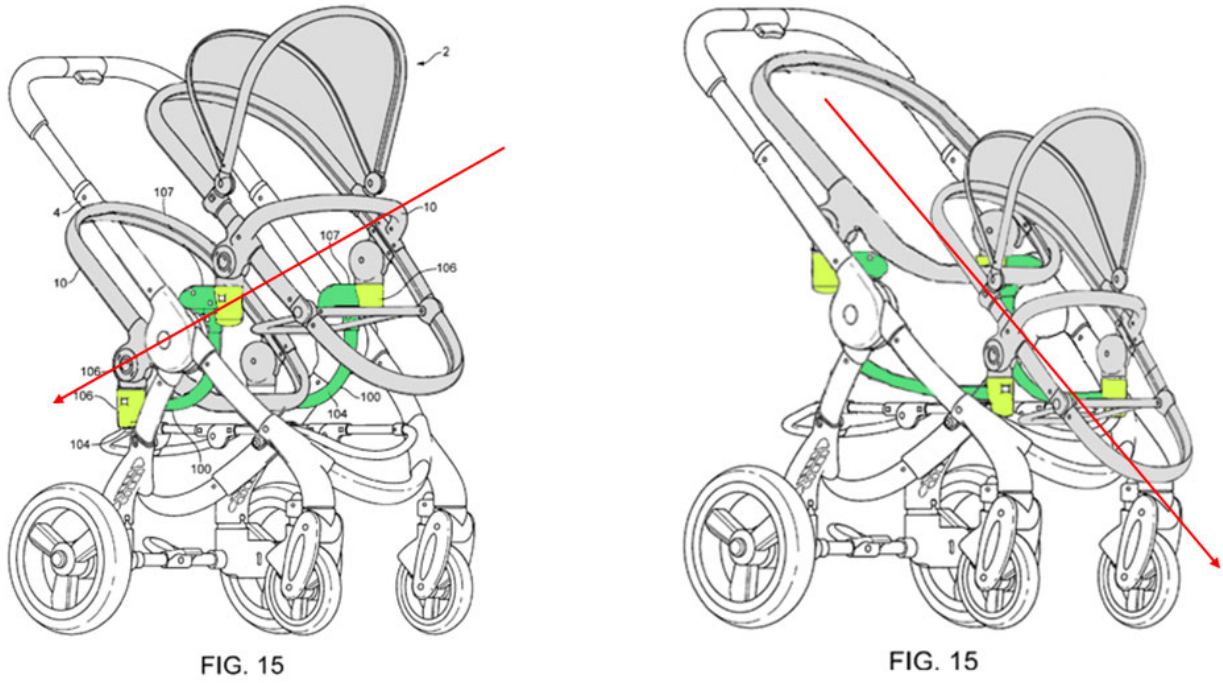
When the interface portion components 100 are attached to the frame assembly 4 they form a sub-frame of the frame assembly 4,

> and **when the child-carrying units are mounted thereon, one behind the other, they are in a compact echelon formation**, one of the connector sockets 106 of each component 100 **being at a higher level in relation to the ground than the other connector sockets 106**.

(EX1051, Offord '341, 9:22-29.)

512. As I have annotated below left, Offord '341 illustrates and teaches a dual-seat configuration where the first seat and second seat are connected to the frame in an inline and descending configuration. The only question is whether the orientation shown would be considered "along the frame." While a POSITA might consider Figure 15 to satisfy this claim, as I discussed in claim limitation [1.3], a POSITA would have understood it would be obvious to reverse the orientation of the sub-frame (including the interface portion components 100) 180 degrees from that shown. Once the orientation is reversed, the upper "connector sockets 106" are in the rear and the lower "connector sockets 106" are in the front, as explicitly disclosed by Offord '797. (EX1054, Offord '797, 4:24-30.) With the sub-frame in this orientation, the "first seat and the second seat, when connected to the frame, are arranged in an inline descending configuration along the stroller frame." I have

attempted to illustrate this using the red arrow in the figure below right.[25]



EX1051, Offord '341, Fig. 15 (Annotated on left), Modified Fig. 15 (Annotated on right)

513. A POSITA would have found it obvious to have the seats of Offord '341 inline descending *along* the stroller frame because the horizontal and vertical difference between the upper and lower "connector sockets 106" are adjustable. (EX1051, Offord '341, 9:37-52.) Offord '341 teaches to adjust the relative

[25] I attempted to assume where the infant's buttocks would be located, but given these are seat "frames," my arrow may be slightly off. Even a slight adjustment would not affect my analysis.

placements of the connector sockets to match the center of gravity and improve safety. A POSITA reading Offord '341 would have understood that matching placement of the "connector sockets 106" to match the diagonal angle of the sides of the frame would "prevent any possibility of dangerous tilting or toppling over" as taught. (EX1051, Offord '341, 9:45-52.)

514. Offord '341 renders obvious claim limitation [1.8.]

> … ***[2.0] The stroller of claim 1, further comprising a first connector portion and a second connector portion, wherein the first seat attachment adapter is removably coupled to the first seat attachment housing via the first connector portion, and wherein the second seat attachment adapter is removably coupled to the second seat attachment housing via the second connector portion.***

515. Again, each of the two "mounting devices 14" attached to each "seat 10" has a "retractable detent 76."

> The outer annular channels 62, 62′ and the substantially straight channel 68 house a key-shaped element 74 which terminates in the channel 68 with **a retractable detent 76 (see FIG. 12), which projects through a hole in the connecting leg 48 and which serves to releasably mount the seat 10 to the frame assembly 4**.

(EX1051, Offord '341, 8:1-8:6.)

516. Each "detent 76" engages with a cooperating slot defined in the sidewall of the "socket 106".

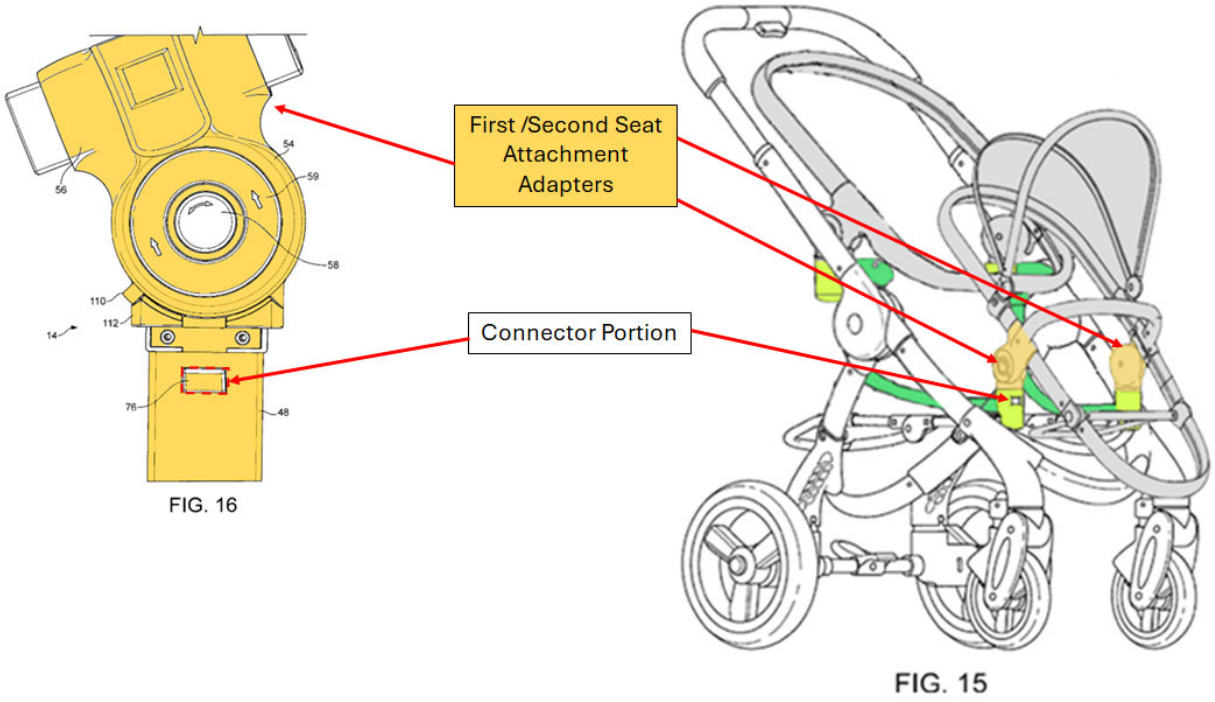


FIG. 16

FIG. 15

EX1051, Offord '341, Figs. 15-16 (Annotated)

517. A POSITA would understand the "detent 76" click-fit through the slot in the "socket 106" when the "leg 48" is inserted in the "socket 106." A POSITA would further understand that the "seat 10" could be removed from the frame assembly 4 by pushing the retractable detent 76 out of the slot and sliding the "leg 48" from the "socket 106".

518. The second seat has two mounting devices 14. A POSITA would have understood one of the detents 76 as being a "first connector portion" and the other detent 76 as being a "second connector portion."

519. The first and second mounting devices 14 ("adapters") are "removably coupled to the [first and second] seat attachment housing[s] via the

[first and second] connector portion[s]."

520. Offord '341 discloses or renders obvious claim 2.

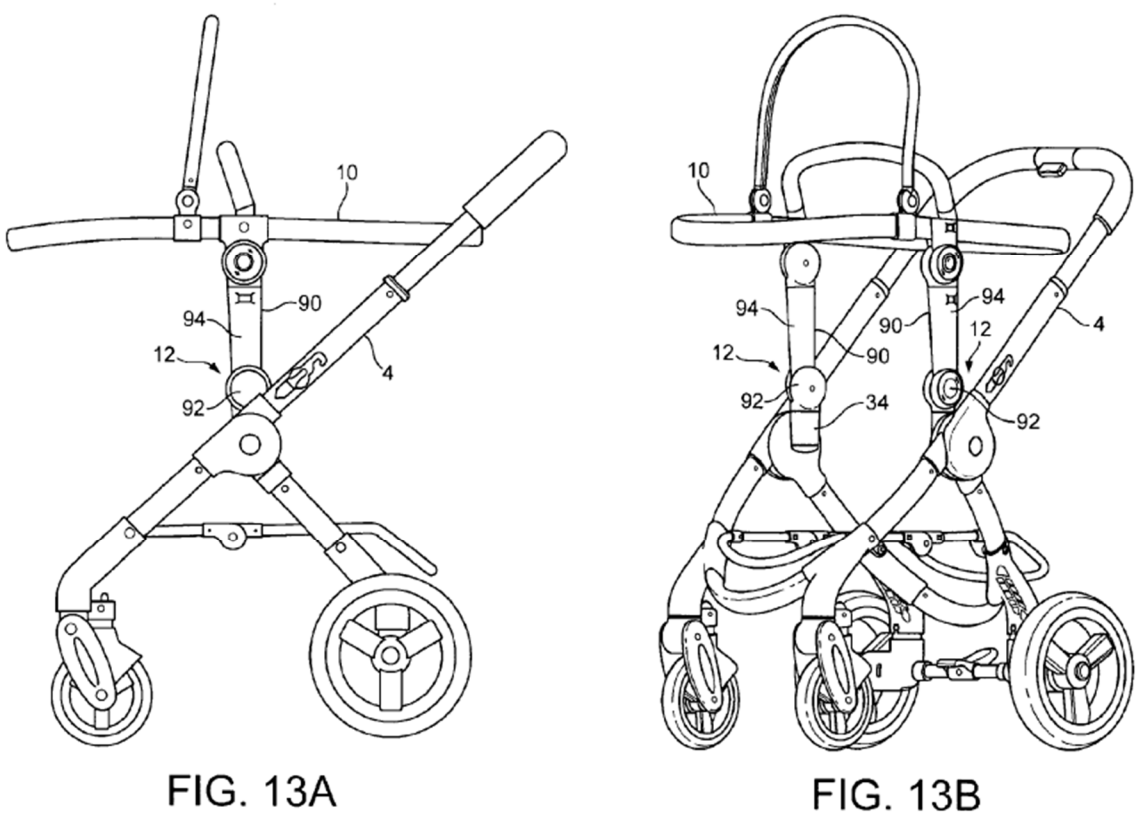
… ***[3.0] The stroller of claim 2, further comprising a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter.***

521. Offord '341 also discloses adapter devices 90 removably coupled between the "cups 34" and the "mounting devices 14" to increase the height of the "seat 10."

> Referring to FIGS. 13*a* and 13*b*, the **frame assembly 4 is provided at each of the mounting regions 12 with an *adaptor device 90***. The **adaptor devices 90 comprise a connecting leg (not shown) substantially identical to the connecting leg 48** of the mounting device 14 previously described, by way of which the **adaptor devices 90 are releasably mounted to the receptor cups 34 of the frame assembly 4, a central hub portion 92, which comprises a release button, and an elongate receiving portion 94 terminating at its upper end with a receptor cup, similar to the receptor cups 34 previously described.** The elongate receiving portion 94 is at least twice the length of the connecting leg of the adaptor device 90 and extends substantially vertically upwardly. Utilisation of a pair of such adaptor devices 90 allows the child-carrying unit 10, especially one for a very young infant such as a new-born baby, to be raised to an elevated position if desired. This allows a parent using the frame assembly to be closer to the infant and also raises the infant from the

lower level pollution zone created by exhaust fumes from motor vehicles.

(EX1051, Offord ’341, 8:63-9:14.)



EX1051, Offord ’341, Figs. 13A and 13B

522. A POSITA would have found it obvious to use an adapter device, like device 90, in conjunction with the “interface components 100” so that a user can adjust the height of the child. Offord ’341 discloses that in some embodiments, the “interface components 100” are vertically adjustable. (EX1051, Offord ’341, 9:37-48). The illustrated “interface components 100” are not shown with any adjustment device. (EX1051, Offord ’341, Fig. 14.) A POSITA would have understood that

the desirable height adjustment could be achieved using the fixed interface components 100 in conjunction with the adapter devices 90 rather than integrating an adjustment device into the "interface component 100."

523. A POSITA would have been motivated to use the "adapter devices 90" for adjustment (rather than an integrated adjustment device) to reduce costs of the interface components 100. Using the adapter devices 90 also provides a separate utility that can be utilized in the single-seat configuration as disclosed in Offord '341. (EX1051, Offord '341, 8:63-9:14, Fig. 13.)

524. Furthermore, a POSITA would have understood that the length of the adapter device 90 is a design choice and that it could be shorter to work seamlessly with the interface components 100 in the dual-seat configuration. Indeed, Offord '341 provides guidance for selecting the correct height. (EX1051, Offord '341, 9:37-52.)

525. A POSITA would have understood that each pair of "mounting device 14" and "adapter device 90" would disclose the claimed "seat attachment adapter" as both components cooperate to attach the "seat 10" to the stroller frame assembly. (EX1051, Fig. 13B, 8:64-9:5.)

526. The adapter devices 90 are removably coupled from the second seat 10.

> The adaptor devices 90 comprise a connecting leg (not shown) substantially identical to the connecting leg 48 of the mounting device 14 previously described, by way of which the **adaptor devices 90 are releasably mounted to the receptor cups 34** of the frame assembly 4, a central hub portion 92, which comprises a release button, and ***an elongate receiving portion 94 terminating at its upper end with a receptor cup, similar to the receptor cups 34 previously described.***

(EX1051, Offord '341, 8:65-9:5.)

527. Therefore, Offord '341's left mount device 14 and left adapter device 90 discloses "the first seat attachment adapter" "removably coupled" to the "second seat" and Offord '341's right mount device 14 and right adapter device 90 discloses "the second seat attachment adapter" "removably coupled" to the "second seat."

528. Offord discloses or renders obvious claim 3.

> … ***[4.0] 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.***

529. As shown below in the annotated figure, each "mounting device 14" ("adapter") has "a first end and a distal second end."

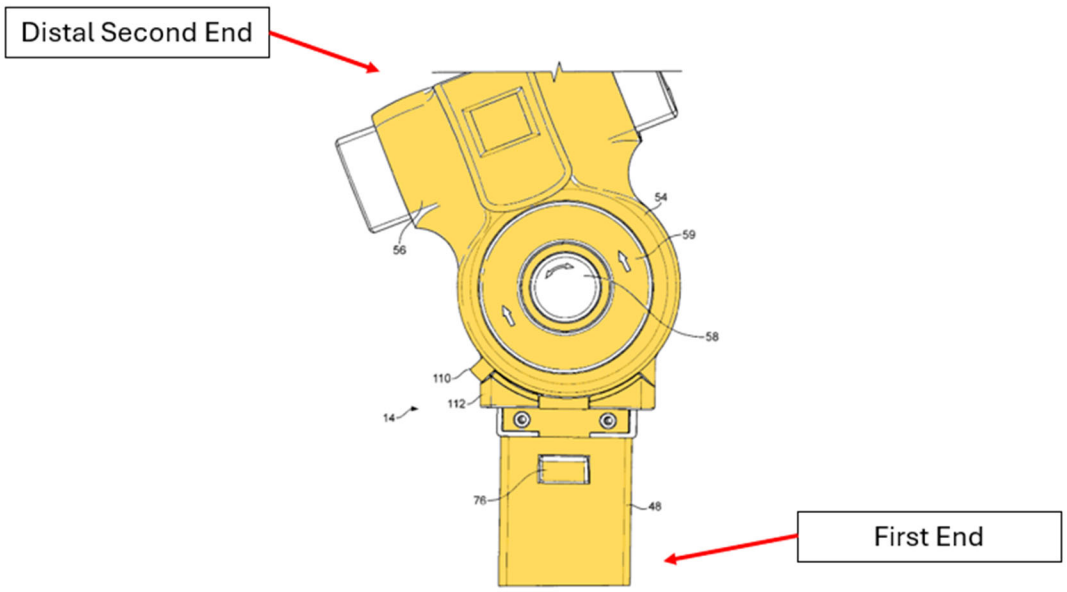


FIG. 16

EX1051, Offord '341, Fig. 16 (Annotated)

530. Offord discloses or renders obvious claim 4.

… ***[5.0] The stroller of claim 4, wherein the first end comprises the respective first connector portion or the second connector portion and, and the first end is releasably connected to the respective first seat attachment housing or the second seat attachment housing.***

531. The "first end" I identified in claim 2 comprises the "detent 76" ("connector portion").

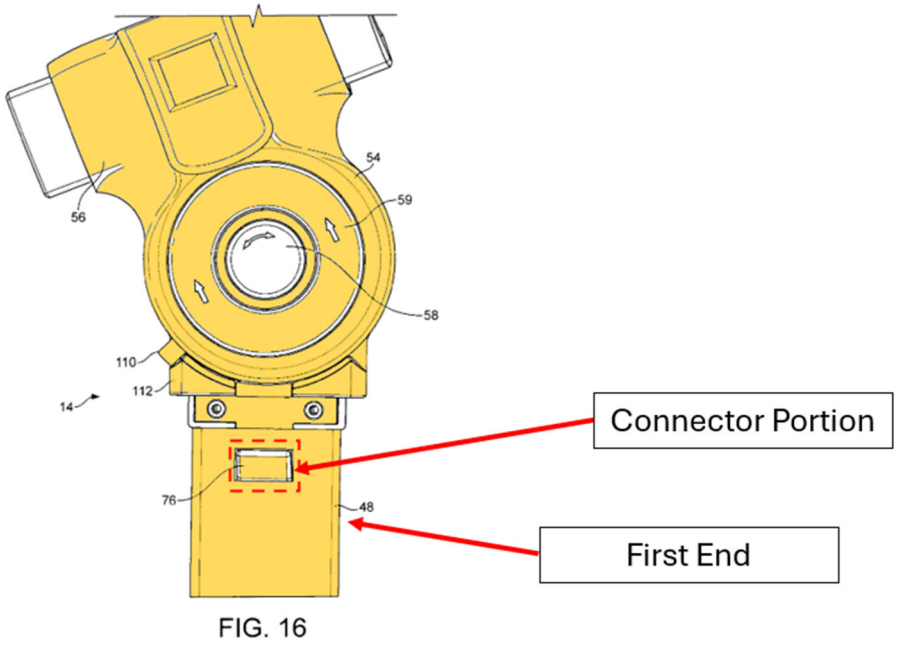


FIG. 16

EX1051, Offord '341, Fig. 16 (Annotated)

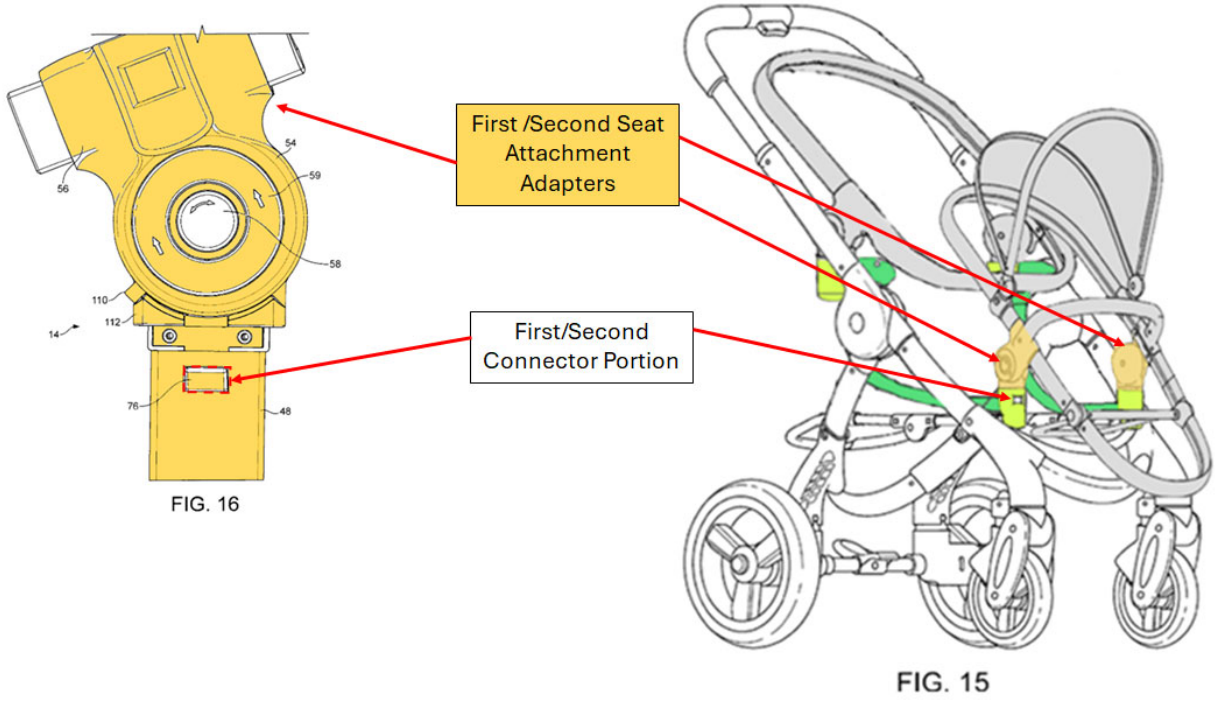


FIG. 16

FIG. 15

EX1051, Offord '341, Figs. 15-16 (Annotated)

… ***[6.0] The stroller of claim 4, wherein the distal second end is releasably connected to a second seat.***

532. I have been informed by Counsel that the ’682 Patent provides an express definition for “releasably connected.”

> As used herein, “**releasably connected**” or “releasably attached” **means** the connection is not a permanent connection and that the connection is capable of being connected and disconnected by the user of the stroller 10 without requiring special tools or special skills. Releasable connections include, but are not limited to, buttons, snaps, friction fittings, interference fits, **threaded connections**, locking tabs, keyed connections, **other fasteners**, or the like.

(EX1010, ’682 Patent, 4:23-30.)

533. As I discussed in claim 1, Offord ’341 discloses a “second seat” having first and second “seat mounts 14” (“adapters” (gold)). (EX1051, Offord ’341, 5:51-55, 9:53-56.)

534. Each “adapter” of the second seat 10 is secured to seat frame of the second seat 10 by four (4) fasteners (not shown) received within the four (4) threaded holes. (EX1051, Offord ’341, 7:43-45.)

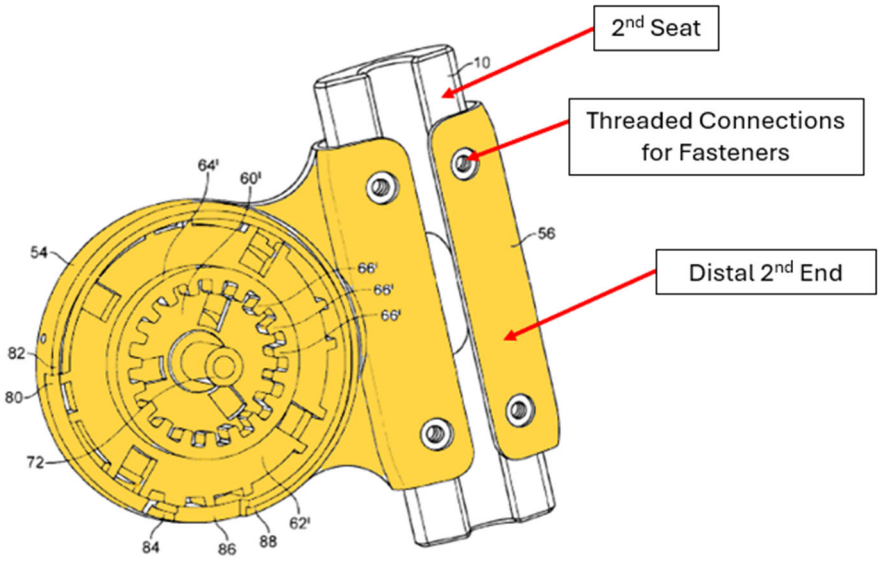


FIG. 11

EX1051, Offord '341, Fig. 11 (Annotated)

535. A POSITA would therefore understand that Offord '341 discloses the "distal second end is releasably connected to a second seat" by threaded connections and fasteners, which do not require special tools to remove.

536. Alternatively, the second seat is "releasably connected" to "distal end" via the "actuating device 58."

537. In Offord '341, "the seats 10" can be reclined (pivoted) relative to the "legs 48" that are attached to the frame via the "cups 34." (EX1051, Offord '341, 8:14-20.) The "mounting devices 14" include a rotatable hub assembly 52 that allows the pivoting. The "hub assembly 52" includes a "first part 50" fixed to the "connecting leg 48" and a "second part 54" attached to the seat by the "bracket

56."

> The connecting leg 48 is connected to a **first part 50 of a rotatable hub assembly 52**, also shown in FIG. 10. A **second part 54 of the hub assembly 52 includes a bracket 56** for fixing to the frame of the seat 10, and is shown in FIG. 11. The **first and second parts 50, 54 are rotatable relative to each other upon actuation of an actuating device**. The second part 54 comprises a single actuating region.

(EX1051, Offord '341, 7:41-48.)

538. The "first part 50" has a "teeth 66" and the second part 54 has "teeth 66'." A movable cog wheel 78 is interposed between the teeth 66/66' to selectively engage (lock) and disengage (release) the first and second parts allow pivoting of the seat. A "button 58" releases the rotatable hub assembly 52 to allow pivoting.

> Referring to FIGS. 10 and 11, the **first part 50 includes inner 60 and outer 62 annular channels separated by an annular wall 64 having a plurality of radially inwardly projecting teeth 66**. There i[]s also a substantially straight channel 68 extending from the outer annular channel 62 into the connecting leg 48. Disposed inwardly of the inner annular channel 60 is a fixing plug 70 for receiving a fixing pin 72 of the second part 54 by a push-fit connection. A toothed cog wheel (not shown) is mounted on the pin-in-plug connection. **The second part 54 has corresponding inner 60′ and outer 62′ annular channels, a corresponding annular wall 64′ and corresponding radially inwardly projecting teeth 66′**.

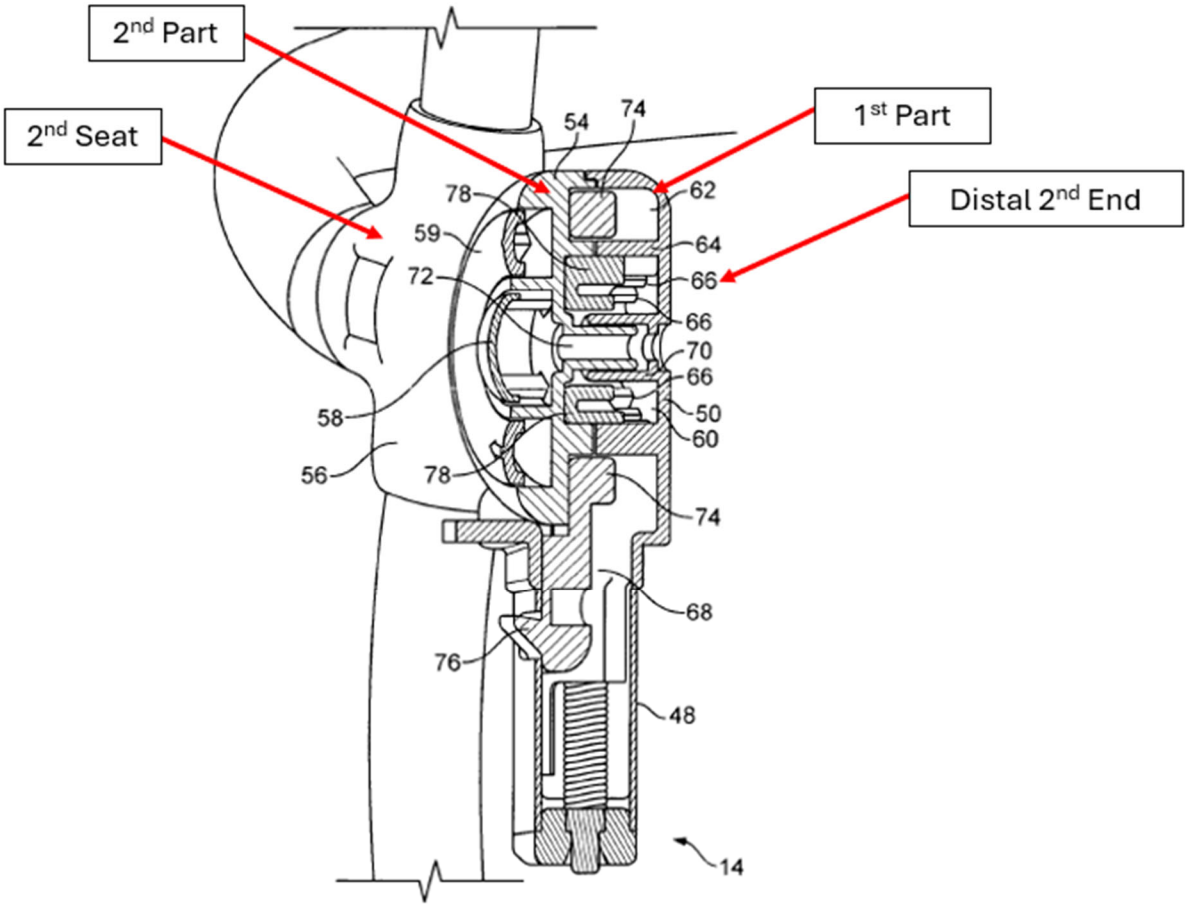
(EX1051, Offord '341, 7:54-65.)

> Referring specifically to FIG. 12, when **the central button 58, which operates the reclining of the child-carrying unit in relation to the mounting device 14**, of the single actuating region is pressed inwardly of the mounting device 14, legs projecting through holes in the base of the inner annular channel 60′ **press against a surface of the cog wheel 78, the teeth of which in the non-activated state engage between the teeth 66′ of the second part 54. Upon full depression of the central button 58, the cog wheel 78 is displaced guidingly along the outer surface of the fixing plug 70 to engage instead with the teeth 66 of the first part 50, thereby allowing the first part 50 to rotate relative to the second part 54 in order to change the recline position of the seat 10 relative to the frame assembly 4.**

(EX1051, Offord ’341, 8:7-20.)

539. Based upon the express definition recited above, a POSITA would understand that the “first part 50” of the “adapter” (gold) is “releasably connected” to the “second part 54” when the “button 58” is pressed.

540. The “first part 50” is part of the “distal end.” Therefore, the “distal end” is “releasably coupled” to the “second seat” via the hub assembly 52” when the above-described internal mechanism is released.



EX1051, Offord '341, Fig. 12 (Annotated)

541. In another alternative, it would have been obvious to a POSITA to have the "distal second end [] releasably connected to a second seat" via the "adapter device 90" the reasons I discussed in claim 3.

542. Offord '341 discloses or renders obvious claim 6.

> … ***[7.0] The stroller of claim 3, 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.***

543. Offord discloses a "child-carrying unit" and states the unit can be different types such as stroller seat 10, an infant car seat, or a carry-cot.

> The vehicle also includes a child-carrying unit in the form of a **seat 10** releasably mounted to the frame assembly 4 at a pair of mounting regions 12 by way of a corresponding pair of mounting devices 14 connected to the frame of the seat 10. The child-carrying unit may alternatively be an **infant car seat** or a **carry-cot**, for example.

(EX1051, Offord '341, 5:51-57.)

544. Additionally, a POSITA would understand from the above-quoted text and Figure 15 that Offord '341 discloses the "first" and "second" seats are a "car seat," "stroller seat," or "baby seat."

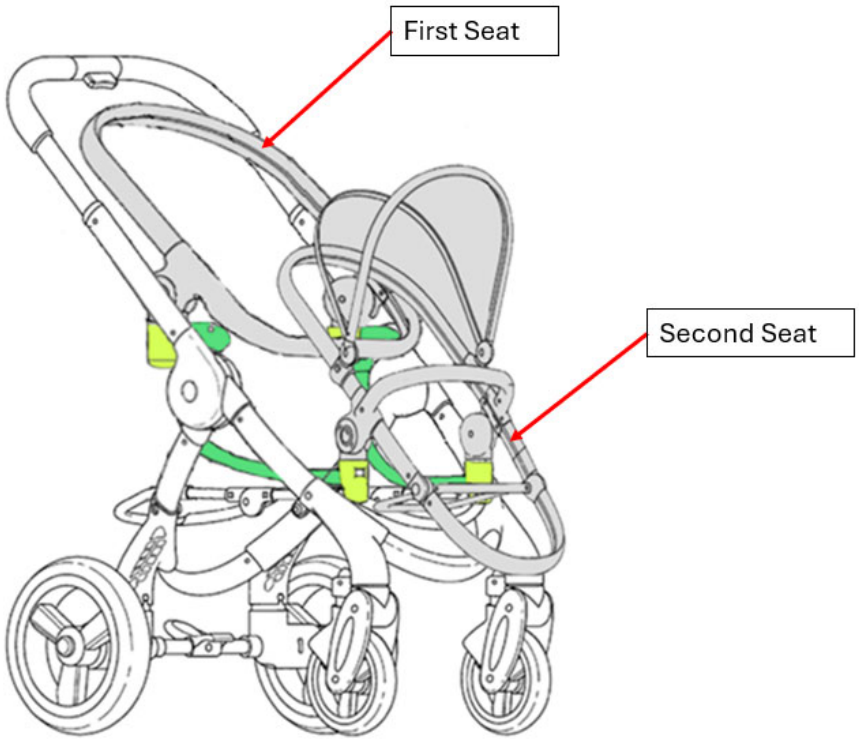


FIG. 15

EX1051, Offord '341, Fig. 15 (Annotated)

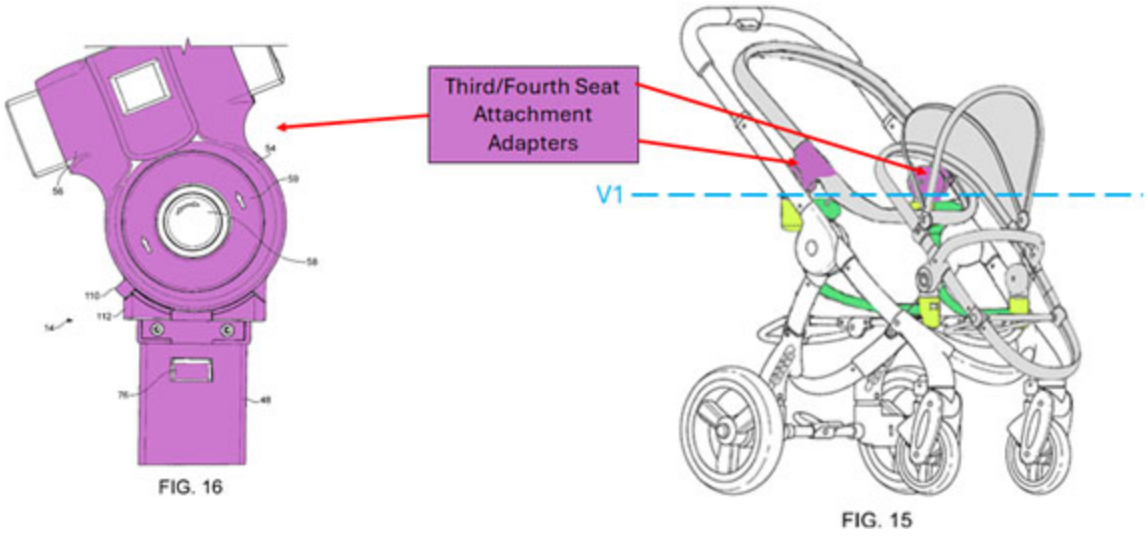
545. Offord discloses or renders obvious claim 7.

… ***[8.0] 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.***

546. As I discussed in claim 1, the upper seat 10 ("first seat") is connected to the upper sockets 106 at the first vertical position (V1) when the "connectors 106" are reversed.

547. The upper seat 10 ("first seat") is identical to the lower seat ("second seat"). As explained in detail in claim 1, each seat includes two mounting devices 14. The two "mounting devices 14" of the upper seat ("first seat") disclose a "third seat attachment adapter" and a "fourth seat attachment adapter" for the same reasons discussed above in claim limitation [1.6] and [1.7].

548. The "third and fourth seat attachment adapters" are coupled to the "stroller frame" at the first vertical position by inserting the legs 48 (part of the "adapter") into the sockets 106 of the sub-frame.



EX1051, Offord '341, Figs. 15-16 (Annotated)

549. It would have been obvious to a POSITA to have the "first seat" "removably coupled to the third seat attachment adapter and the fourth seat attachment adapter" for the reasons I discussed in claim 3. Specifically, the left "mounting device 14" plus the left "adapter device 90" discloses a "third adapter" and the right "mounting device 14" plus the right "adapter device 90" discloses a

the "fourth adapter."

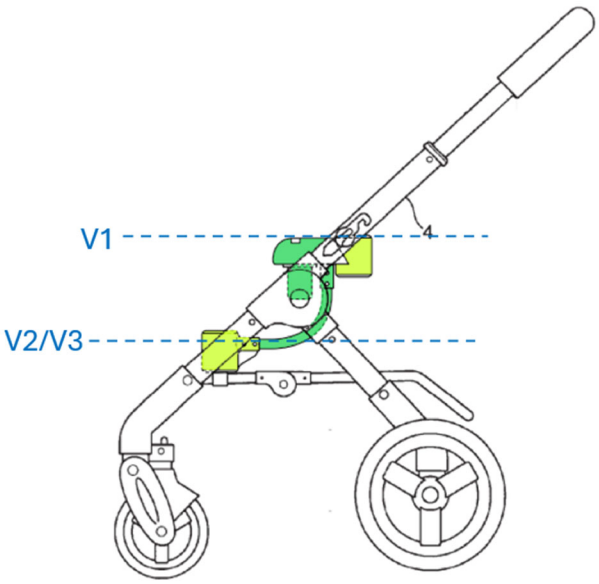
550. Therefore, it is my opinion that Offord '341 discloses or renders obvious claim [8.0].

… ***[9.0] The stroller of claim 1, wherein the second vertical position and the third vertical position are at a same vertical height.***

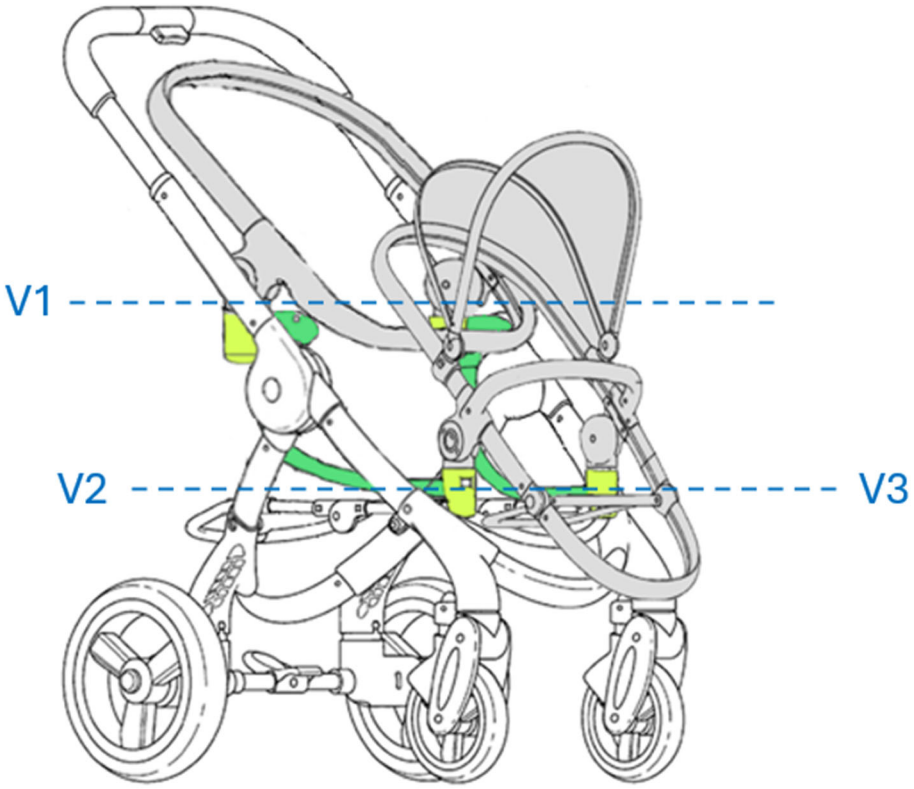
551. A POSITA would understand that the frame assembly 4 of Offord '341 is symmetrical. (EX1051, Offord '341, Fig. 1, 2:51-65.) As such, the receptacle cups 34 located on the inner housings 30 of the hinge 16 are located at a same height. (See Offord '341, Figure 1, horizontal axis 18 showing hinges 16 and attached cups 34 are common height.)

552. Figures 14 and 15 would further inform a POSITA that the interface components 100 are the same.

553. Since each interface component 100 is designed to be the same and attached at the same height via the cups 34, the vertical position (V2/V3) of the lower sockets 106 would be "at a same vertical height." A POSITA would understand the heights of the lower connectors "106" could not be different heights as the seat would likely not couple correctly nor would it be safe to have the seat be offset at different vertical positions between the two adapters.



EX1051, Offord '341, Fig. 13A (Modified)



EX1051, Offord '341, Fig. 15 (Modified)

554. Therefore, it is my opinion that Offord '341 discloses or renders

obvious claim [9.0].

… ***[10.0] The stroller of claim 1, wherein the stroller frame comprises:***

555. See Ground 4, limitation [1.0] above.

… ***[10.1] a first upper tube support frame;***

… ***[10.2] a second upper tube support frame;***

556. The "frame assembly 4" of Offord '341 is formed from multiple interconnected tubes as I discussed in claim 1. Below I shade in red two upper tubes of the frame 4. A POSITA would consider the tubes I have highlighted in red as being the "first" and "second upper tube support frame[s]."

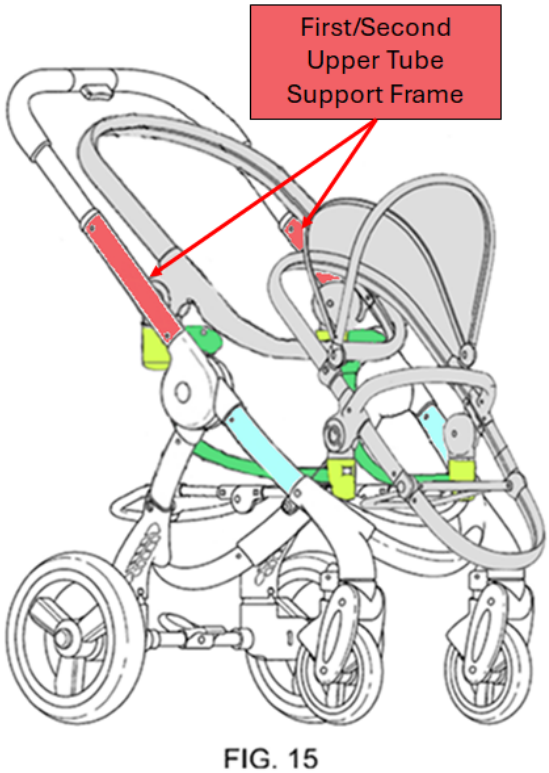


FIG. 15

EX1051, Offord '341, Fig. 15 (Modified & Annotated)

… ***[10.3] a first front wheel support frame configured to rotate with respect to the first upper tube support frame;***

… ***[10.4] a second front wheel support frame configured to rotate with respect to the second upper tube support frame;***

557. Offord ’341 discloses the frame assembly 4 includes a “forward-projecting sub-portion 18.”

> The **lower portion of the frame assembly 4 below the hinge devices 16 comprises a *forward-projecting frame sub-portion 18*** and a rearward-projecting frame sub-portion 20, to which the wheels 6 are attached. The frame sub-portions 18 and 20, without the wheels 6 attached, are substantially identical. Thus, both frame sub-portions 18 and 20 can be manufactured from the same tooling and moulds. This even applies to the common mouldings 19 by way of which the wheels 6 are connected to the frame assembly 4 and which are substantially identical.

(EX1051, Offord ’341, 6:3-12.)

558. A POSITA would understand the two tubes of the “sub-portion 18” I shade below in light blue as being “a first front wheel support frame” and “a second front wheel support frame.”

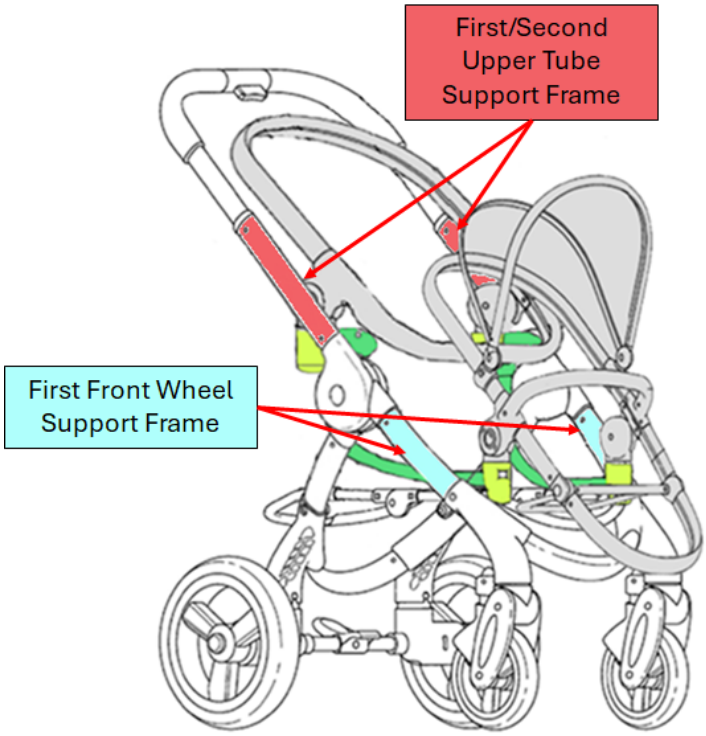


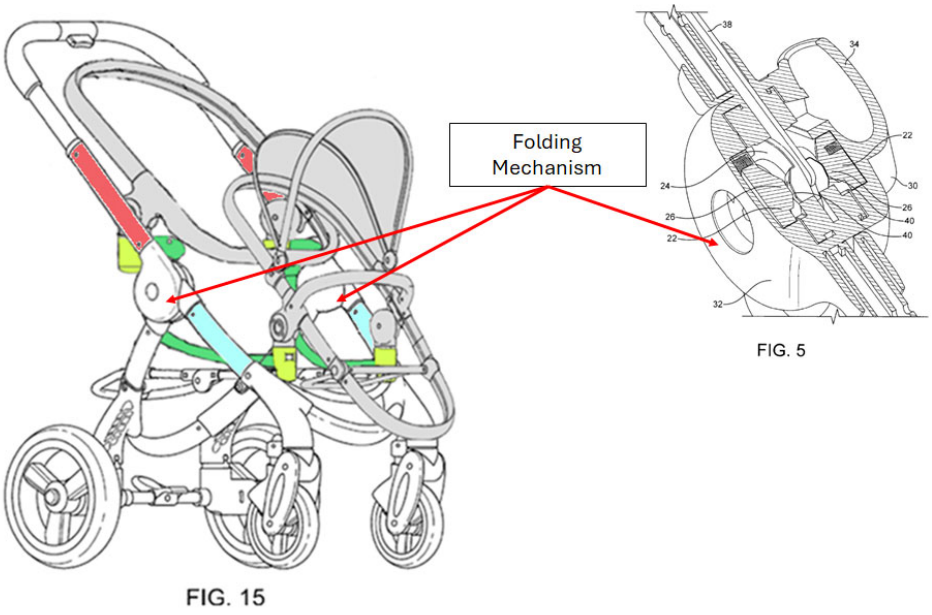
FIG. 15

EX1051, Offord '341, Fig. 15 (Modified)

559. The frame assembly 4 includes a pair of hinge devices 16 that allow the stroller to fold.

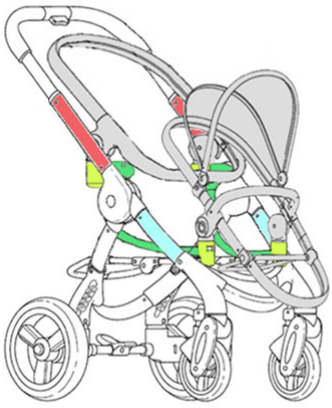
> The frame assembly 4 further includes **a pair of main hinge devices 16, one on each side of the frame assembly 4**. The upper portion of the frame assembly above the hinge devices 16 comprising the handle 8 is able to turn about a substantially horizontal axis 18 in such a manner that upon being put into an unlocked condition, described hereinafter, **the upper portion of the frame assembly 4 is movable about the axis 18 and downwardly through a substantially vertical plane to convert the frame assembly 4 from an erected state, as shown in FIG. 1, to a semi-folded state, similar to that shown in FIG. 7**.

(EX1051, Offord ’341, 5:60-6:2.)



EX1051, Offord ’341, Figs. 15 (Modified), 5 (Annotated)

560. The “hinge devices 16 interconnect the “upper tube support frame[s]” with their corresponding “front wheel support frame[s].” Therefore, Offord ’341 discloses “a first front wheel support frame ([blue]) configured to rotate with respect to the first upper tube support frame ([red])” and “a second front wheel support frame ([blue]) configured to rotate with respect to the second upper tube support frame ([red]).”


FIG. 15

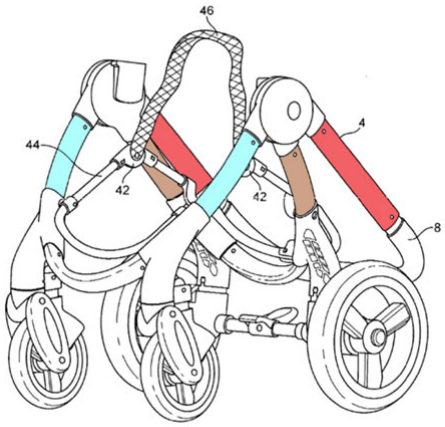


FIG. 7

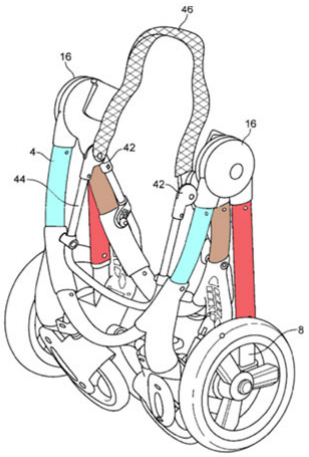


FIG. 8

EX1051, Offord '341, Figs. 15 (Modified), 7-8

… ***[10.5] a first back wheel support frame configured to rotate with respect to the first upper tube support frame; and***

… ***[10.6] a second back wheel support frame configured to rotate with respect to the second upper tube support frame.***

561. Offord '341 discloses the "frame assembly 4" includes a "rearward-projecting sub-portion 20."

> **The lower portion of the frame assembly 4 below the hinge devices 16 comprises** a forward-projecting frame sub-portion 18 and ***a rearward-projecting frame sub-portion 20***, to which the wheels 6 are attached. The frame sub-portions 18 and 20, without the wheels 6 attached, are substantially identical. Thus, both frame sub-portions 18 and 20 can be manufactured from the same tooling and moulds. This even applies to the common mouldings 19 by way of which the wheels 6 are connected to the frame assembly 4 and which are substantially identical.

(EX1051, Offord '341, 6:3-12.)

562. As shown in the annotated figure below, the "sub-portion 20" includes a pair of tubes (shaded brown) that a POSITA would consider "a first back wheel support frame" and "a second back wheel support frame."

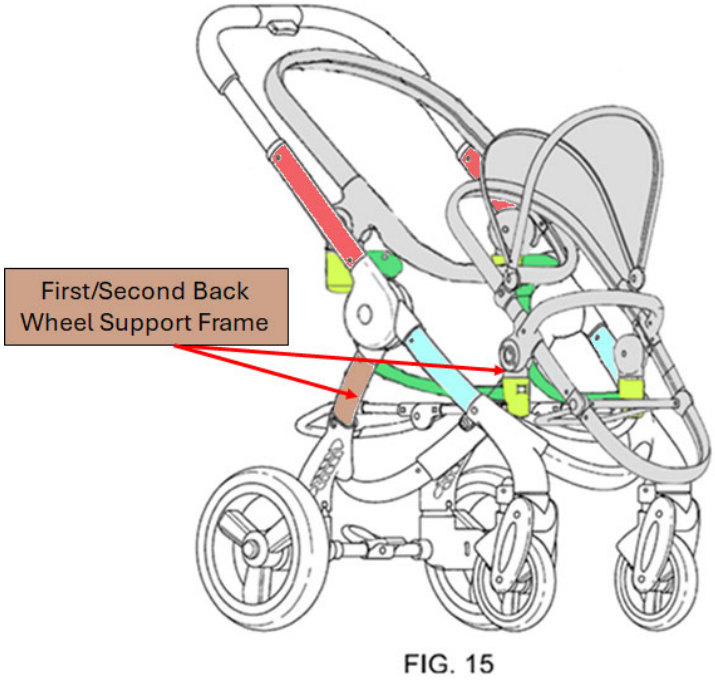


FIG. 15

EX1051, Offord '341, Fig. 15 (Modified and Annotated)

563. The "sub-portion 20" is pivotally attached by the hinge devices 16 and configured to rotate relative to the "sub-portion 18."

> The locking hub devices 22, 24 are housed within housings, **the inner lateral locking hub device 22 being housed within an inner housing 30** ***which connects to the rearward-projecting frame sub-portion 20*** and outer lateral locking hub device 22 being housed in an outer housing 32 which connects to the forward-projecting frame sub-portion 18. A receptor cup 34 attached to the inner housing 30 forms a

> part of the mounting region **12. The inner housing 30 and the outer housing 32 are capable of rotational movement relative to a central housing 36 (shown in FIG. 4), *which connects the upper portion of the frame assembly 4 incorporating the handle 8 to the hinge device 16, the central housing itself being capable of rotational movement about the axis 18 relative to the inner and outer housings 30 and 32*.**

(Offord '341, 6:18-36.)

564. Therefore, Offord '341 discloses, "a first back wheel support frame [("brown")] configured to rotate with respect to the first upper tube support frame [(red)]; and a second back wheel support frame [("brown")] configured to rotate with respect to the second upper tube support frame [("red")]."

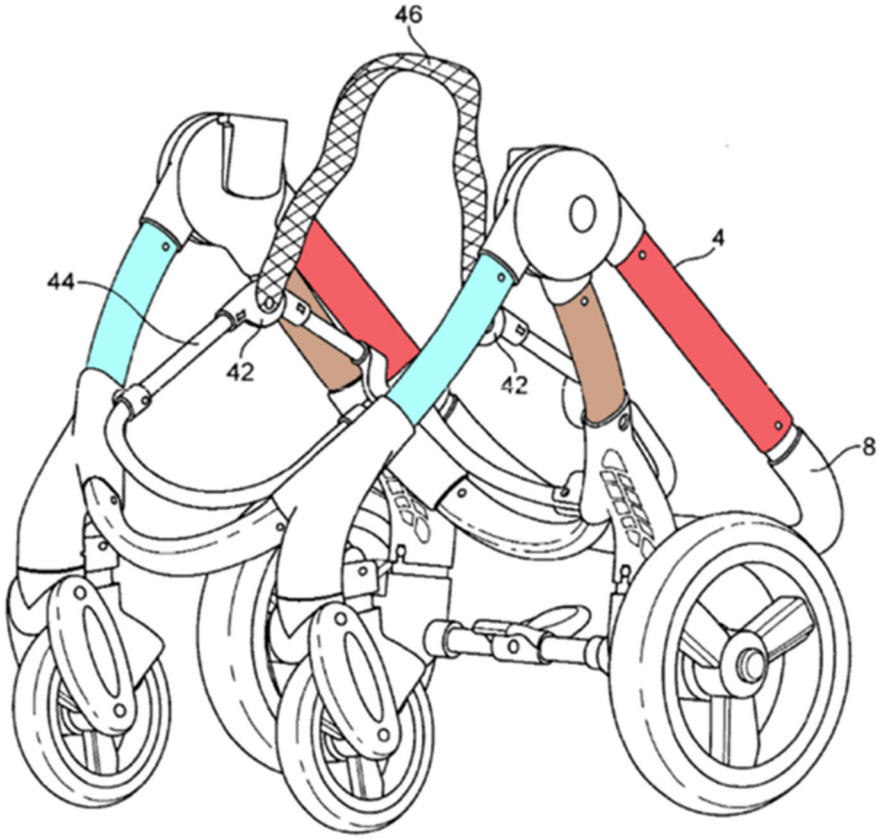


FIG. 7

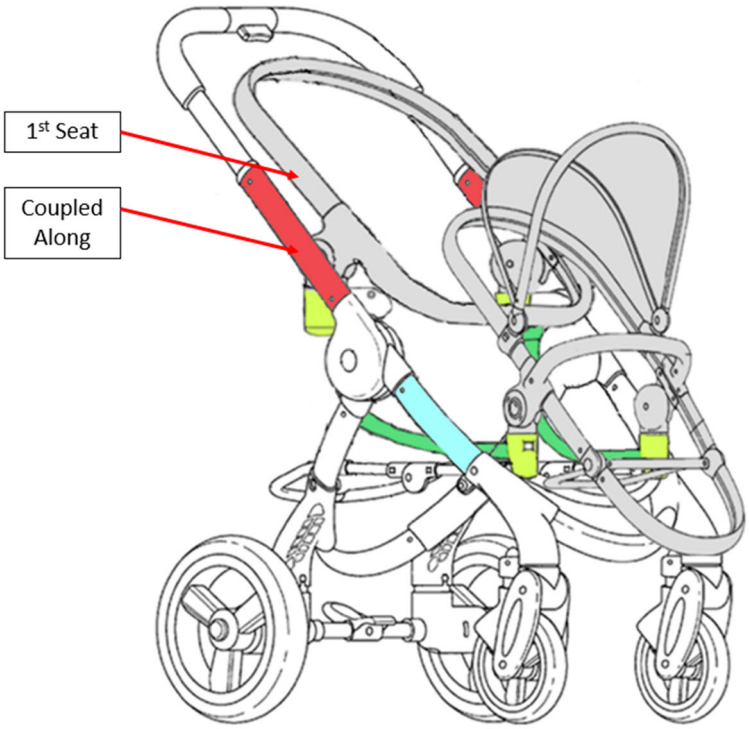
EX1051, Offord '341, Fig. 7

565. Therefore, it is my opinion that Offord '341 discloses or renders obvious claim [10.0].

… ***[11.0] The stroller of claim 10, wherein the first seat is coupled along the first upper tube support frame and the second upper tube support frame, wherein the first seat attachment housing is coupled to the first front wheel support frame, and wherein the second seat attachment housing is coupled to the second front wheel support frame.***

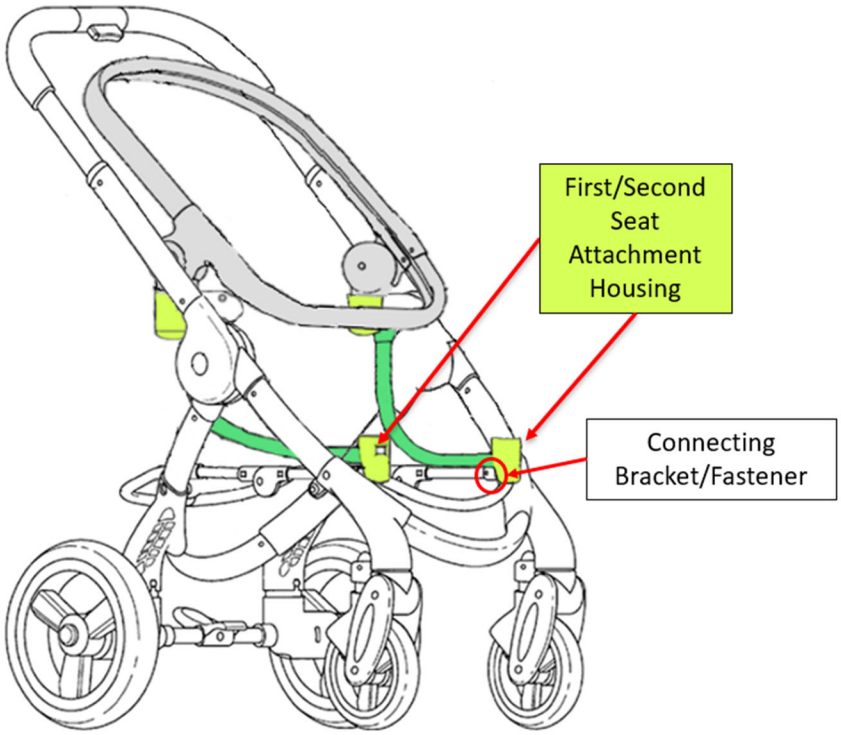
566. As shown in the below annotated figure, the upper "first" seat is

"coupled" to "connectors" on the sub-frame assembly. The seat is coupled next to or along the "upper tube support frame[s]." The subframe is coupled to the stroller frame at the "receptor cup 34."



EX1051, Offord '341, Fig. 15 (Modified and Annotated)

567. As I discussed in claim 1, in modified Figure 15, each lower socket 106 is coupled to the backet frame 44 by the "curved lug 108." (EX1051, Offord '341, 9:32-35.) The basket frame 44 is coupled to the "front wheel support frames" (light blue) by a bracket and fastener.



EX1051, Offord '341, Fig. 15 (Modified and Annotated)

568. Therefore, the first/second "seat attachment housing" (green) is indirectly coupled along the first/second "front wheel support frame" via the "basket frame 44" and "lug 108."

569. Therefore, it is my opinion that Offord '341 discloses or renders obvious claim [12.0].

> … ***[12.0] The stroller of claim 10, further wherein the handle portion comprises a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame.***

570. As I stated in limitation [1.1], Offord '341 discloses a telescoping

"handle portion" (i.e., "handle 8") which is attached to "the frame assembly 4." As I have shown below, a POSITA would understand the handle does include a first end coupled to the "first upper tube support" and a "distal second end" that is coupled to the "second upper tube support frame." This is consistent with the proposed construction where "handle portion" is the "portion of frame coupled to the upper ends of the left and right upper tube support frame" as the "handle portion" I have identified is coupled to the upper ends of both the left/right "upper tube support frames."

> Referring to FIG. 1, a vehicle 2 for transporting children comprises a **frame assembly 4**, a plurality of ground-contacting wheels 6 attached to the frame assembly 4, and **a handle 8 for grasping by the controller of the vehicle 2**. The **handle 8 is** a substantially inverted U-shaped member telescopically **attached to the frame assembly 4**.

(EX1051, Offord '341, 5:45-50.)

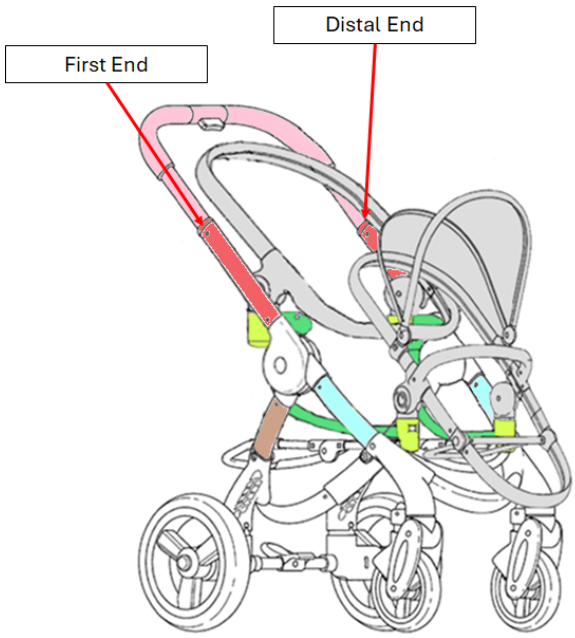


FIG. 15

EX1051, Offord '341, Fig. 15 (Modified and Annotated)

571. Therefore, it is my opinion that Offord '341 discloses or renders obvious claim [12.0].

… ***[13.0] The stroller of claim 1, wherein the first seat attachment housing and the second seat attachment housing are part of the stroller frame.***

572. In claim 1, I identified the lower sockets 106 (green) as being the first and second "seat attachment housings." Each "socket 106" ("housing") is a component of the interface component 100, which is a component of the sub-frame, which is a component of the frame assembly 4. Thus, the "sockets 106" ("housings") are a structural component that is interconnected with the other portions of the frame assembly 4 and is part of the load path carrying the load from

the seats to the "wheels 6." Therefore, a POSITA would consider the lower sockets ("housings" (green)) as being "part of the stroller frame."

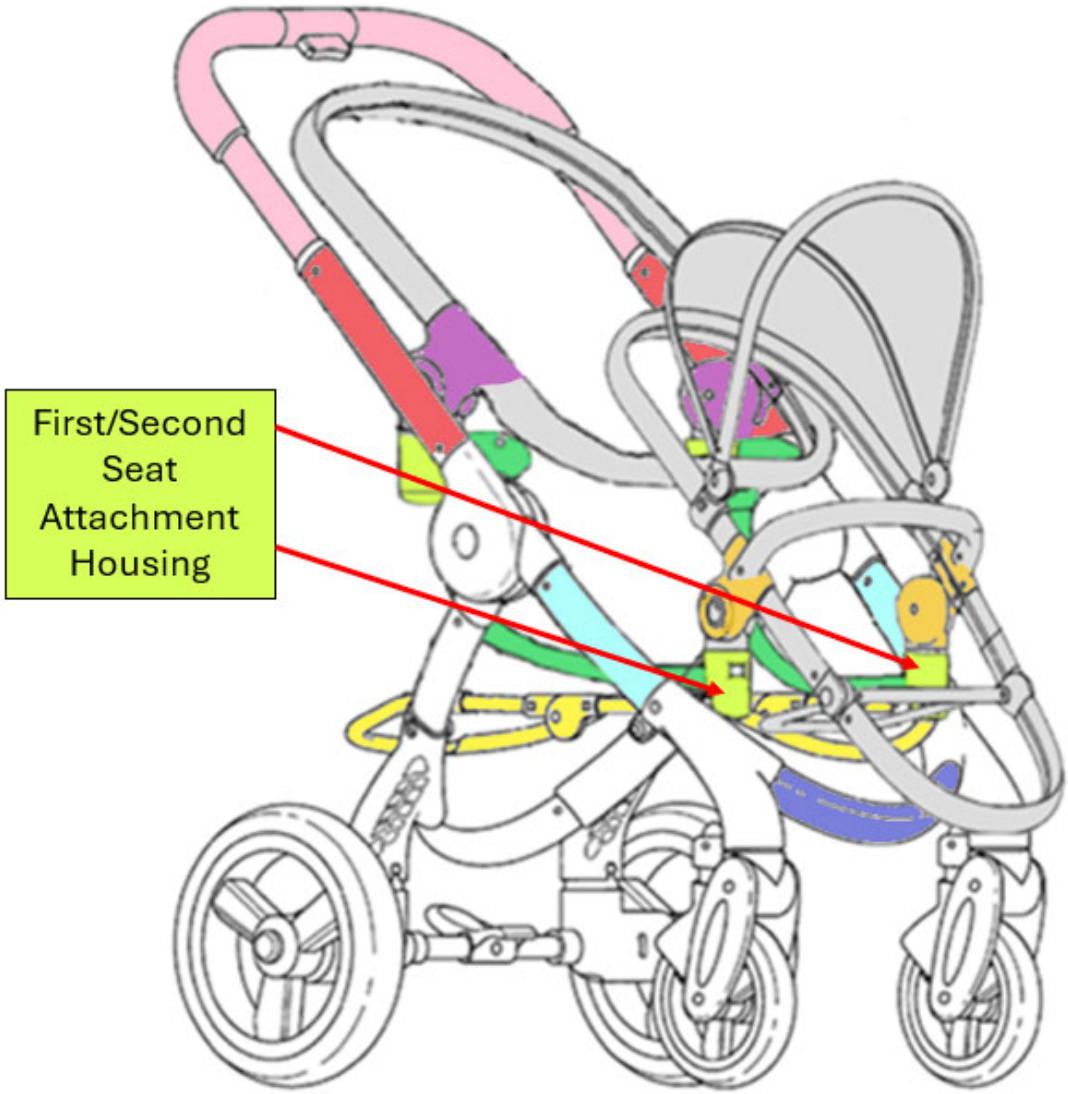


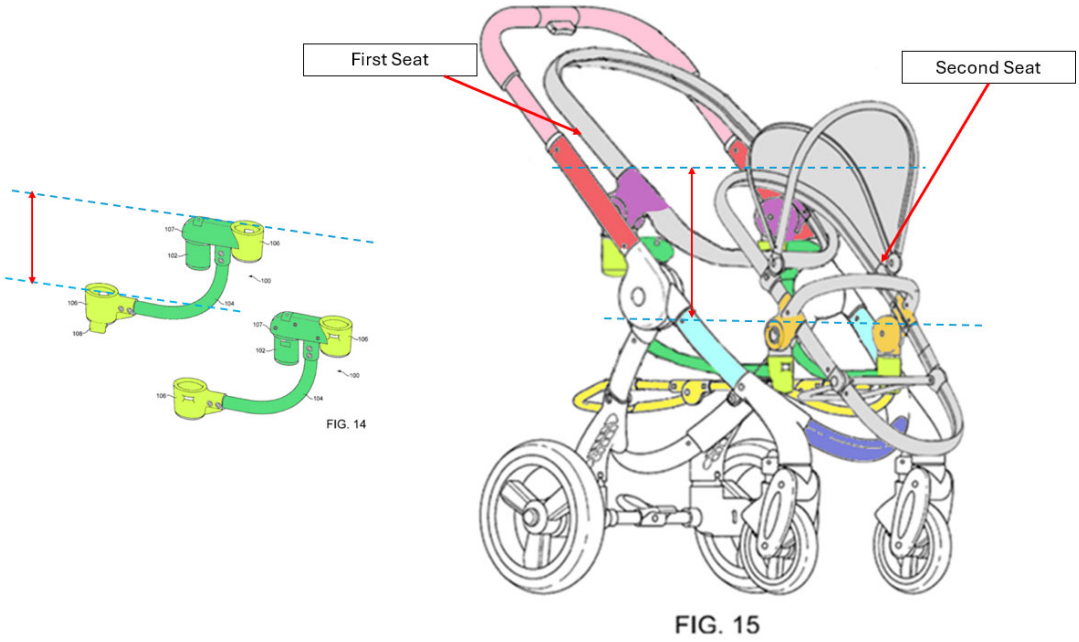
FIG. 15

EX1051, Offord '341, Fig. 15 (Modified and Annotated)

573. Therefore, it is my opinion that Offord '341 discloses or renders obvious claim [13.0].

… ***[14.0] The stroller of claim 3, wherein the second seat is vertically lower than the first seat.***

574. As I discussed in [1.3] above, when the interface components 100 are install in reverse orientation, the lower seat 10 ("second seat") is vertically lower than the upper seat 10 ("first seat").[26]

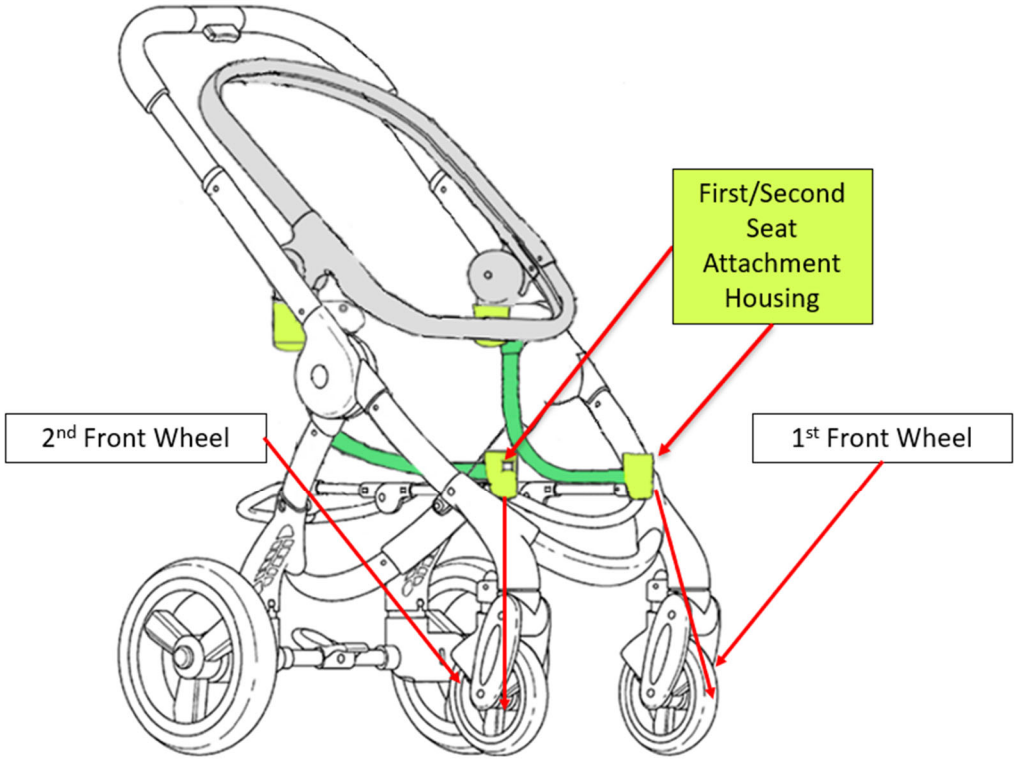


EX1051, Offord '341, Figs. 14-15 (Annotated)

[26] Again, only the seat chassis are shown. So I had to estimate where the location of the infants buttocks would be located when actually within the seat. But the actual location would not vary my analysis.

> … ***[15.0] The stroller of claim 1, wherein the first front wheel extends from the first seat attachment housing, and wherein the second front wheel extends from the second seat attachment housing.***

575. The lower sockets ("seat attachment housings" (green)) are located adjacent to the front-wheel housings ("common moldings 19"). (EX1051, Offord '341, 6:9-11.) As shown by the red arrows below, the "first front wheel extends from the first seat attachment housing" and the "second front wheel extends from the second seat attachment housing."

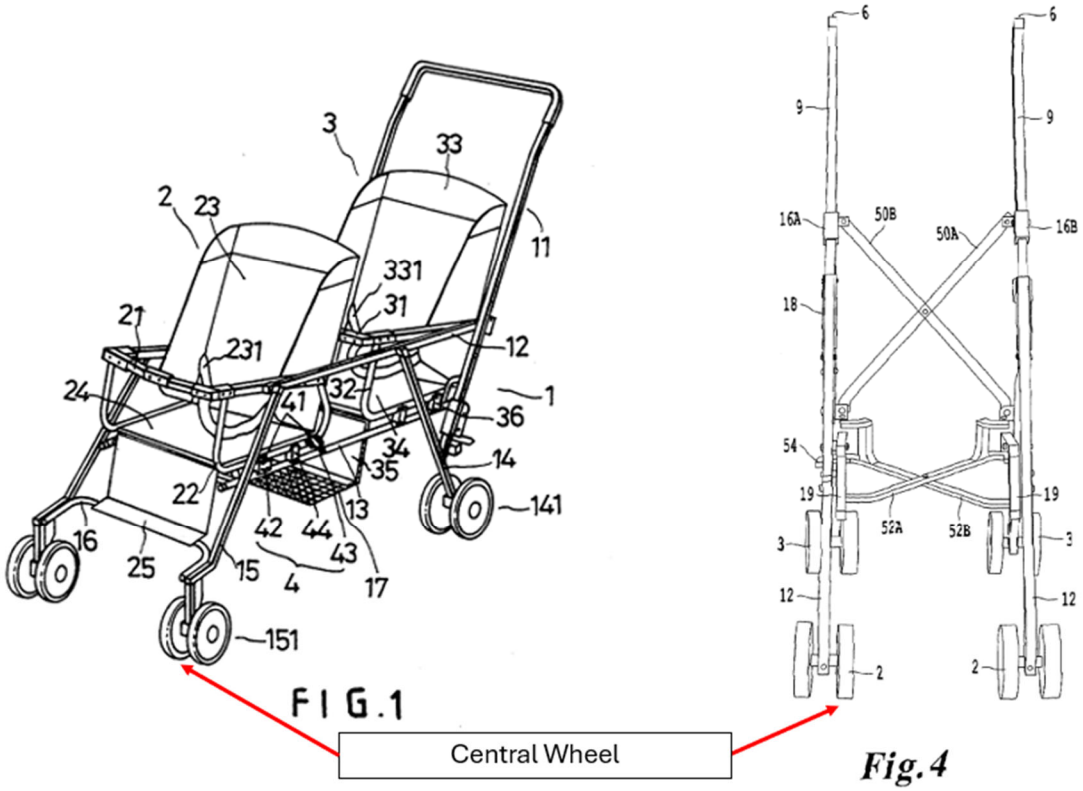


EX1051, Offord '341, Fig. 15 (Modified and Annotated)

… ***[16.0] The stroller of claim 1, wherein the plurality of wheels comprises at least one central wheel.***

576. Offord discloses four "wheels 6", two front and two rear. Thus, Offord '341 does not disclose "at least one central wheel."

577. However, it was well known prior to 2008 to use wheel sets rather than the stand-alone wheels like Offord '341. For example, U.S. Patent No. 5,338,096 (EX1036) discloses four (4) wheel sets with each set including two wheels. Each front wheel set 151 has an outer wheel and an inner wheel. (EX1036, Huang, 2:2, Fig. 1.) U.S. Patent No. 7,641,216 also discloses four (4) wheel sets, each set including two wheels. (EX1033, Cone, Fig. 4.) A POSITA would have considered the inner wheel of each of these patents as being a "central wheel."



EX1036, Huang, Fig. 1 (left); EX1033, Cone, Fig. 4 (right) (Annotated)

578. Using the wheel set 151 of EX1036 or wheel set 2 of EX1033 in place of the front wheels 6 of Offord '341 would result in Offord '341 having "at least one central wheel."

579. A POSITA would have found it obvious to use the wheel sets in place of the front wheels 6 of Offord '341 because such a modification constitutes the simple substitution of one known element for another to achieve a predictable result. The use of wheel sets does not alter the operation of the stroller. According to *The Baby Gizmo Buying Guide*, "[t]he number of wheels is irrelevant" to the function of the stroller, further supporting the conclusion that a POSITA would

recognize this substitution as yielding no unexpected results. (EX1031, Hollie Schultz Dec., EX10–*The Baby Gizmo Buying Guide*, 291.)

1. Rationale to Combine Offord ’341 and Offord ’797

580. A POSITA would have been motivated to review and incorporate the disclosure of Offord ’797 (i.e., WO 2008/040797) based on the explicit reference made in Offord ’341, which states that “[a] similar sub-frame arrangement is disclosed in WO 2008/040797.” (EX1051, ’341 Patent, 9:35-36.) This type of cross-reference within a patent specification is a clear signal to a POSITA that the cited reference is relevant and informative to the invention. Here, both the Offord ’341 Patent and Offord ’797 are directed to the design of sub-frame assemblies used in strollers to support additional seats. Because the references are within the same field of endeavor and relate to structurally similar sub-frame systems, a POSITA would have naturally consulted Offord ’797 to understand alternative configurations. And, the specific cross-reference directs a POSITA to the Offord ’797 to fully understand the sub-frame and interface portion components 100.

581. Moreover, the ’341 Patent’s explicit citation to Offord ’797 reinforces that the structures at issue are not only analogous, but are functionally interchangeable. A POSITA, equipped with ordinary creativity and knowledge of common design variations, would have reasonably expected that the sub-frame (including the interface components 100) of Offord ’341 could be reversed like the

"sub-frame 10" of Offord '797. Indeed, both of Offord's patents utilize a common socket/cup sized to receive all of the various legs/inserts of the seat adapters and interfaces.

582. Therefore, a POSITA would have been motivated to rotate and install the "interface components 100" of Offord '341 in the reverse orientation as disclosed in Offord '797.

X. Conclusion

583. In my opinion, all the elements of the challenged claim limitations are disclosed by the references discussed above and therefore the claims are unpatentable in view of these prior art references.

584. I reserve the right to supplement my opinions to address any information obtained, or positions taken, based on any new information that comes to light throughout this proceeding.

I declare under penalty of perjury that the foregoing is true and accurate to the best of my ability.

Executed on: 06/14/2025

Douglas Prairie (Jun 14, 2025 15:10 CDT)

Douglas S. Prairie

APPENDIX A

DOUGLAS S. PRAIRIE, P.E.

1402 Steamboat Trail • Brookings, SD 57006 • (605) 310-8802 • douglasprairie@yahoo.com

PROFESSIONAL ENGINEER

Registered under number 13315 in the State of Idaho

MISSION STATEMENT

Provide innovative education, business and product development solutions

SKILLS SUMMARY

• Engineering Education	• Product Management	• Engineering Management
• Precision Agriculture	• Business Development	• Contract Negotiations
• Fluid Power Systems	• P&ID Development	• Design for Manufacturing
• Higher Education	• Sales Management	• Stress & Failure Analysis
• Off-Highway Equipment	• Intellectual Property	• Feasibility Cost Studies
• Project Management	• Biofuels	• GD&T
• Product Development	• Industrial Equipment	• Engine Emission Regs
• Lean Manufacturing	• Agricultural Equipment	• Machine Design

EXPERIENCE

South Dakota State University, Brookings, SD; www.sdstate.edu; *August 2016 to present*
Lecturer for Agriculture and Biosystems Engineering Department

- Ag Power and Machinery, Fluid Power Systems, Instrumentation and Controls, ABE Senior Design
- Advisor for International Quarter Scale tractor club; Awarded 3 Championships over the last 9 years
- Advisor for Fluid Power Club; Awarded 2nd place for Fluid Power Bike competition 2023 and 2025

Prairie West LLC, *December 2007 to present*
Freelance Agriculture, Mechanical and Industrial Design Engineer

- Expert legal consultant for multiple cases requiring mechanical and agriculture systems expertise
- Contract designer, developer and test engineer for BOB Strollers
- Contract engineer and CAD designer for AGI Hi Roller belt conveyors

POET Research, Sioux Falls, SD www.poet.com; *June 2015 to June 2016*
Mechanical Research Manager for POET's Research and Innovation Group

- POET Research was responsible for the development and support of novel technologies related to corn ethanol, cellulosic ethanol, and corn derived industrial products and processes.

Raven Industries, Sioux Falls, SD www.ravenprecision.com; *November 2014 to March 2015*
North American Sales Manager of Precision Agriculture Technology

- Sales Leadership for a team of 15 account managers spread across the United States and Canada
- Sales Forecasting and Analysis for hundreds of accounts totaling over $60 million in annual sales
- Contract Negotiations with OEM and after-market distribution partners

Raven Industries, Sioux Falls, SD www.ravenprecision.com; *March 2010 to November 2014*
Product Manager of Planting, Seeding and Harvest Control Product Lines

- Led development and launch of OmniRow Planter Controls, OmniSeed Air Seeder Controls, UHarvest Grain Cart Monitoring System, and SmartYield Pro Yield Monitoring System
- Business Development of an industry leading Multi-Hybrid planter control system
- Team Lead for Raven SmartQuote Guided Sales and Quotation Tool
- Grew product line sales from a few thousand $ into multi-million $ per year business segments
- Recipient of four ASABE AE 50 Product Innovation Awards
- Member of Raven Leadership Council

EVENFLO ET AL. EX1001, EXA

DOUGLAS S. PRAIRIE, P.E.

EXPERIENCE CONTINUED

Bratney Companies, Boise, ID www.bratney.com; *February 2003 to September 2005*
Construction/Mechanical Project Engineer of Industrial Processes

- Developed and Executed proposals for multiple design-build construction projects
- Project Managed the construction and startup of a green field alfalfa cleaning and bagging facility

Multiquip, Boise, ID www.multiquip.com; *Dec 2000 to Feb 2003; Sept 2005 to Dec 2007*
Engineering Department Manager for Light Construction Equipment Manufacturer

- Manage a team of 15 engineers, designers, drafters, and technicians tasked with supporting the safety and technical demands of 200+ plus finished goods.
- Manage a $1.3 million annual budget for engineering product support and product development.
- Coordinate with product managers, manufacturing, quality, purchasing, marketing, and suppliers
- Responsible for designing equipment to latest global safety and homologation standards
- Coordinate intellectual property development with patent attorneys

Case Corporation, Fargo, ND www.cnh.com; *October 1996 to July 2000*
New Product Development Engineer for Planting and Seeding Division

- Developed SDX 30 and SDX 40 single disc planter programs from conception to production

Ag-Chem Equipment Co., Jackson, MN www.agcocorp.com; *May 1996 to September 1996*

- Performed and analyzed engine dynamometer tests, hydraulic tests, and other product tests utilizing data acquisition systems

PATENTS

- Inventor on U.S. Patent # 5,915,312 & 6,047,652: *Pneumatic Seed Delivery System*
- Inventor on U.S. Patent # 6,116,172: *Shank Mounted Row Crop Opener*
- Inventor on U.S. Patent # 6,386,127 6,640,732 & 6,644,223: *Disc Opener for a Seed Planter*
- Inventor on U.S. Patent # 6,454,019: *Ag Implement Down Pressure System*
- Inventor on U.S. Patent # 7,497,522: *Concrete Saw Stay Level Handlebars,*
- Patent Pending: *Multi-Hybrid Planter Controls and Combine Yield Monitor Systems.*

SOFTWARE

SolidWorks CAD and Simulation, LabVIEW, MathCAD, Visio, CREO, AutoCAD, SAP R/3, Visual Basic, Working Model, Microsoft Office and Microsoft Project

EDUCATION

BOISE STATE UNIVERSITY (BSU) Boise, ID www.boisestate.edu
Masters of Mechanical Engineering with Business Emphasis
Graduation Date: December 2004 GPA: 3.5/4.0
Project Paper: *Design of a Conceptual Biodiesel Production Facility*

SOUTH DAKOTA STATE UNIVERSITY (SDSU), Brookings, SD www.sdstate.edu
BS Agricultural Engineering with Power and Machinery Focus
Graduation Date: May 1997 GPA: 3.6/4.0

ASSOCIATIONS

- Certified with Carew International Dimensions of Professional Selling® Program
- Member of FarmHouse Fraternity www.farmhouse.org
- Member of Society of Automotive Engineers www.sae.org
- Member of American Society of Mechanical Engineers www.asme.org
- Member of American Society of Agricultural and Biological Engineers www.asabe.org
- SolidWorks User Group

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