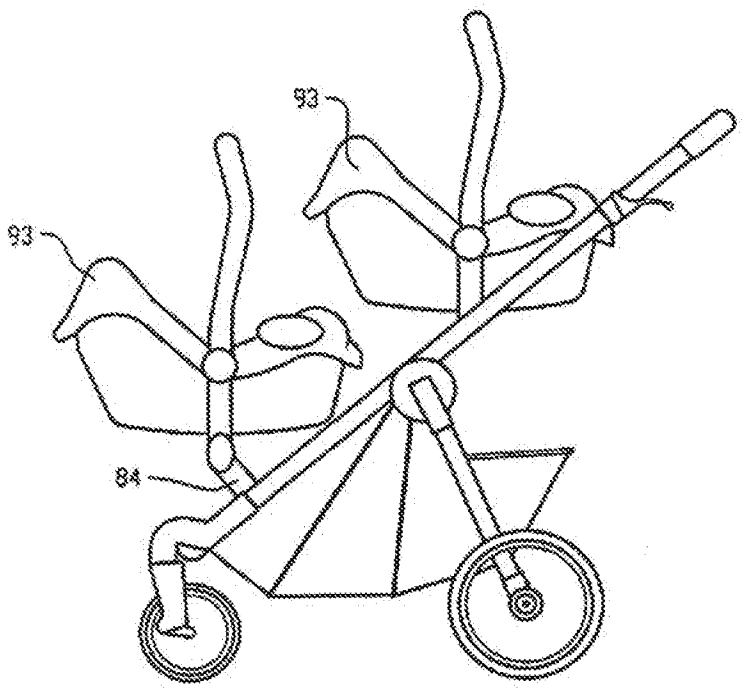



图 9E

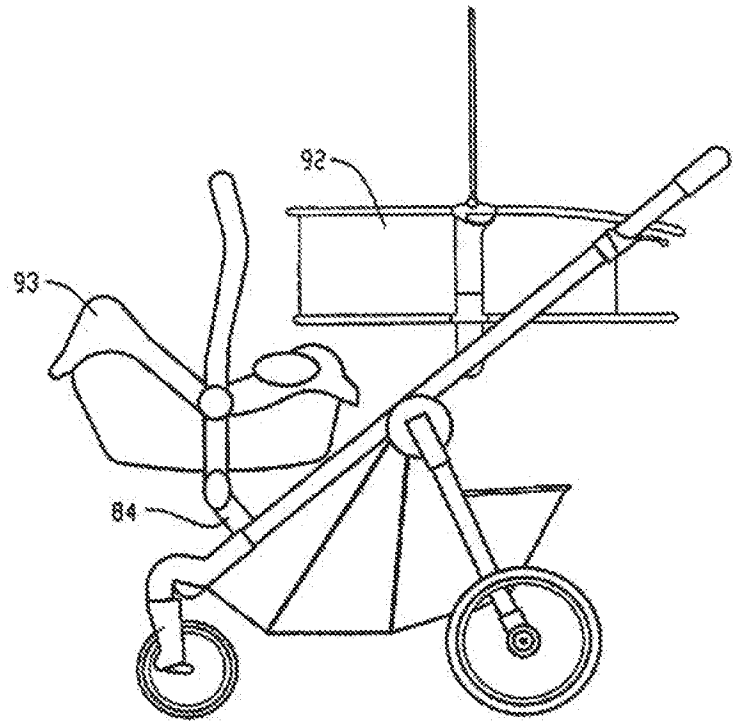



图 9F

Espacenet

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## Maneuverable strollers

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## Abstract of CN103909960 (A)

Maneuverable strollers are disclosed herein. An example stroller disclosed herein includes a frame having a front wheel and a rear wheel to support the frame. An intermediate wheel is positioned between the front wheel and the rear wheel. A carriage is coupled to the rear wheel, the intermediate wheel and the frame.

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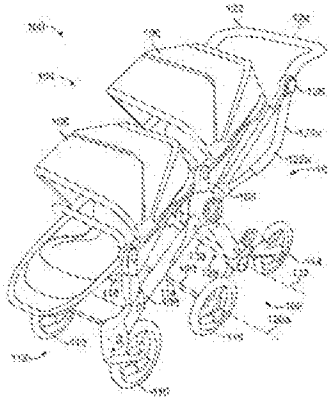
权利要求书2页 说明书10页 附图25页

(54)发明名称

容易操纵的婴儿车

(57)摘要

本文公开了一种容易操纵的婴儿车。在此公开的示例婴儿车包括框架，该框架具有前轮和后轮以支撑该框架、中间轮位于前轮和后轮之间、托架被连接至后轮、中间轮和框架。



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1. 一种婴儿车，该婴儿车包括：

框架；

用于支撑所述框架的前轮和后轮；

位于所述前轮和所述后轮之间的中间轮；以及

联接至所述后轮、所述中间轮和所述框架的托架。

2. 根据权利要求 1 所述的婴儿车，该婴儿车还包括在所述框架的第一侧面框架组件和第二侧面框架组件之间延伸的轮轴。

3. 根据权利要求 2 所述的婴儿车，其中，所述轮轴位于所述中间轮的旋转轴线与所述后轮的旋转轴线之间。

4. 根据权利要求 1 所述的婴儿车，其中，所述托架被枢转地安装至所述框架，以使得当向所述婴儿车的手柄施加向下力时所述婴儿车的所述前轮能够相对于所述中间轮和所述后轮被抬起。

5. 根据权利要求 4 所述的婴儿车，其中，当所述前轮相对于行进表面被抬起时，所述中间轮和所述后轮保持与所述行进表面接合。

6. 根据权利要求 1 所述的婴儿车，该婴儿车还包括悬架，当在所述后轮和所述中间轮位于地面上的情况下使所述婴儿车的前端向上枢转时，所述悬架提供反作用力。

7. 根据权利要求 6 所述的婴儿车，其中，所述悬架包括联接至所述婴儿车的轮轴的扭转弹簧。

8. 根据权利要求 1 所述的婴儿车，该婴儿车还包括一限制件，以限制所述框架绕所述婴儿车的轮轴枢转的旋转距离。

9. 根据权利要求 1 所述的婴儿车，其中，所述中间轮提供一转动枢转点，以在向所述婴儿车的手柄施加转动力时使所述婴儿车绕该转动枢转点来转动。

10. 根据权利要求 1 所述的婴儿车，其中，所述中间轮的中心与所述后轮的中心之间的距离小于所述中间轮的中心与所述前轮的中心之间的距离。

11. 一种婴儿车，该婴儿车包括：

框架，该框架具有第一侧面框架组件，该第一侧面框架组件与第二侧面框架组件横向间隔开，以在这些侧面框架组件之间限定座椅区域；

用于支撑所述框架的前端的前轮；

用于支撑所述框架的后端的后轮；

中间轮，该中间轮用于提供位于所述前轮和所述后轮之间的转动枢轴；以及

在所述第一侧面框架组件和所述第二侧面框架组件之间延伸的轮轴，该轮轴限定了这样的轴线，即：当所述前轮相对于所述后轮和所述中间轮升起时所述框架绕该轴线枢转，并且该轴线位于所述中间轮和所述后轮之间。

12. 根据权利要求 11 所述的婴儿车，该婴儿车还包括联接至所述轮轴的悬架，以当所述框架绕所述轮轴枢转时向所述框架提供增加的力。

13. 根据权利要求 12 所述的婴儿车，其中，所述悬架包括同轴地联接至所述轮轴或所述框架的扭转弹簧。

14. 根据权利要求 11 所述的婴儿车，该婴儿车还包括托架，该托架用于将所述中间轮和所述后轮安装至所述框架。

15. 根据权利要求 14 所述的婴儿车，其中，每个侧面框架组件都包括下框架支撑件、上框架支撑件和中间框架支撑件，所述下框架支撑件、所述上框架支撑件和所述中间框架支撑件经由位于该下框架支撑件、该上框架支撑件和该中间框架支撑件的相应的第一端处的枢转连接件而被枢转地联接。

16. 根据权利要求 15 所述的婴儿车，其中，当所述框架处于使用中的位置时，所述下框架支撑件与所述上框架支撑件基本上对齐或平行，并且所述中间框架支撑件相对于所述下框架支撑件和所述上框架支撑件基本上垂直。

17. 根据权利要求 15 所述的婴儿车，该婴儿车还包括邻近所述中间框架支撑件定位的悬架，该悬架具有联接至所述上框架支撑件的第一端和联接至所述托架的第二端。

18. 根据权利要求 17 所述的婴儿车，其中，所述悬架基本上平行于所述中间框架支撑件。

19. 根据权利要求 17 所述的婴儿车，其中，所述悬架、所述中间框架支撑件、所述上框架支撑件和所述托架限定一联动装置，当将所述婴儿车折叠至塌缩位置时，该联动装置使得所述托架绕所述轮轴旋转。

20. 一种制造婴儿车的方法，该方法包括：

将前轮安装至框架的前部；

将后轮和中间轮安装至所述框架，使得所述中间轮位于所述前轮和所述后轮之间；以及

在所述后轮和所述中间轮之间提供一枢转轴，以使得所述框架的所述前部能够相对于该框架的后部抬起。

21. 根据权利要求 20 所述的方法，其中，将所述后轮和所述中间轮安装至所述框架包括将所述中间轮和所述后轮安装至一托架并且在所述枢转轴处将所述托架安装至所述框架。

22. 根据权利要求 21 所述的方法，该方法还包括以可旋转的方式联接所述框架，从而相对于所述托架绕所述枢转轴旋转。

23. 根据权利要求 21 所述的方法，该方法还包括将悬架联接至所述托架，使得当所述框架绕所述枢转轴旋转时所述悬架提供增加的力。

24. 根据权利要求 21 所述的方法，该方法还包括通过以下步骤来形成所述框架：将下框架支撑件、上框架支撑件和中间框架支撑件联接至位于这些框架支撑件的相应的第一端处的枢转连接件，并且在所述中间框架支撑件的第二端处将所述中间框架支撑件以可旋转的方式联接至所述枢转轴。

25. 根据权利要求 24 所述的方法，该方法还包括将悬架安装至所述框架而与所述中间框架支撑件相邻，所述悬架具有联接至所述上框架支撑件的第一部分和联接至所述托架的第二部分，当所述框架绕所述枢转轴枢转时，所述悬架提供增加的力。

# 容易操纵的婴儿车

## 技术领域

[0001] 本公开大体上涉及一种儿童照顾装置，并且更具体地，涉及一种容易操纵的婴儿车。

## 背景技术

[0002] 在本领域中，婴儿车是已知的。典型地，已知的婴儿车包括可折叠框架、车轮以及用于支撑处于就坐、斜卧和/或平躺位置的儿童或婴儿的一个或多个座椅。婴儿车框架通常能沿至少一个方向折叠以允许所述婴儿车塌缩至折叠位置。

## 发明内容

[0003] 依照第一方面，提供了一种婴儿车，该婴儿车包括：框架；用于支撑所述框架的前轮和后轮；位于所述前轮和所述后轮之间的中间轮；以及联接至所述后轮、所述中间轮和所述框架的托架。

[0004] 依照第二方面，提供了一种婴儿车，该婴儿车包括：框架，该框架具有第一侧面框架组件，该第一侧面框架组件与第二侧面框架组件横向间隔开，以在这些侧面框架组件之间限定座椅区域；用于支撑所述框架的前端的前轮；用于支撑所述框架的后端的后轮；中间轮，该中间轮用于提供位于所述前轮和所述后轮之间的转动枢轴；以及在所述第一侧面框架组件和所述第二侧面框架组件之间延伸的轮轴，该轮轴限定了这样的轴线，即：当所述前轮相对于所述后轮和所述中间轮升起时所述框架绕该轴线枢转，并且该轴线位于所述中间轮和所述后轮之间。

[0005] 依照第三方面，提供了一种制造婴儿车的方法，该方法包括：将前轮安装至框架的前部；将后轮和中间轮安装至所述框架，使得所述中间轮位于所述前轮和所述后轮之间；以及在所述后轮和所述中间轮之间提供一枢转轴，以使得所述框架的所述前部能够相对于该框架的后部抬起。

## 附图说明

[0006] 图 1 是依照在此公开的教导而构造的示例婴儿车的立体图。

[0007] 图 2 是图 1 的示例婴儿车的左侧面视图。

[0008] 图 3 是图 1 和图 2 的示例婴儿车的右侧面视图。

[0009] 图 4 是图 1 至图 3 的示例婴儿车的侧面视图，示出了当示例婴儿车的全部车轮都与基本上平坦或水平的行进路径接触时示例婴儿车的枢转运动的示例范围。

[0010] 图 5A 是图 1 至图 4 的示例婴儿车的局部左侧面立体图。

[0011] 图 5B 是图 1 至图 4 的示例婴儿车的局部右侧面立体图。

[0012] 图 6 是图 1 至图 4、图 5A 和图 5B 的示例婴儿车的侧面视图，示出了示例婴儿车的前轮相对于示例婴儿车的后轮和中间轮而升高。

[0013] 图 7 是图 1 至图 4、图 5A、图 5B 和图 6 的示例婴儿车的侧面视图，示出了部分塌缩



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的婴儿车。

[0014] 图 8 是图 1 至图 4、图 5A、图 5B、图 6 和图 7 的示例婴儿车的侧面视图，示出了完全塌缩的婴儿车。

[0015] 图 9A 和图 9B 示出了在此公开的示例座椅安装件。

[0016] 图 10 示出了在此公开的另一示例座椅安装件。

[0017] 图 11 示出了依照本公开的教导而构造的另一示例婴儿车。

[0018] 图 12 是依照该公开的教导而构造的另一示例婴儿车的侧面视图。

[0019] 图 13 是图 12 的示例婴儿车的示例手柄的顶视图。

[0020] 图 14 是图 12 和图 13 的示例婴儿车的处于部分塌缩状态的框架的一部分的侧面视图。

[0021] 图 15 是图 12 至图 14 的示例婴儿车的侧面视图，示出了完全塌缩的婴儿车。

[0022] 图 16 是依照在此公开的教导而构造的另一示例婴儿车的立体图。

[0023] 图 17 是图 16 的示例婴儿车具有柔软品的侧面视图。

[0024] 图 18 是图 16 和图 17 的示例婴儿车的顶视图。

[0025] 图 19 是图 16 至图 18 的示例婴儿车的左侧面视图，但是为了清楚起见而移除了柔软品。

[0026] 图 20 是图 16 至图 19 的示例婴儿车的右侧面视图。

[0027] 图 21 是图 16 至图 20 的示例婴儿车的侧面视图，示出了示例婴儿车的示例悬架装置。

[0028] 图 22A 至图 22D 示出了图 16 至图 21 的示例婴儿车的示例制动机构。

[0029] 图 23 是图 16 至图 21 的示例婴儿车的侧面视图，示出了部分塌缩的婴儿车。

[0030] 图 24 是图 16 至图 21 的示例婴儿车的侧面视图，示出了完全塌缩的婴儿车。

[0031] 图 25A 和图 25B 示出了图 16 至图 21 的示例婴儿车的示例锁闩释放机构。

[0032] 图 26 是依照本公开的教导而构造的又一示例婴儿车的侧面视图。

[0033] 图 27 是图 26 的示例婴儿车的侧面视图，示出了部分塌缩的婴儿车。

[0034] 图 28 是图 26 和图 27 的示例婴儿车的侧面视图，示出了完全塌缩的婴儿车。

[0035] 图 29 描述了在此公开的组装示例覆盖组件的示例方法的流程图。

## 具体实施方式

[0036] 在此公开的示例婴儿车相对于一些已知的婴儿车提高了婴儿车的稳定性、操纵性和 / 或转向控制，和 / 或提供了改进的震动吸收性。在此公开的示例婴儿车使得使用者能够在一紧密的转动半径内转动或枢转示例婴儿车。在一些示例中，婴儿车可以在其自身的总长度或包络尺寸内转动 360 度。为了能够这样转动，在此公开的示例婴儿车采用一个或多个中间的、能够枢转的和 / 或变大的车轮。在一些示例中，中间轮（例如，中央轮）被布置在支撑婴儿车框架的前部的一个或多个前轮和支撑婴儿车框架的后部的一个或多个后轮之间。前轮和后轮之间的距离基本上限定了婴儿车的总长度。在一些示例中，中间轮基本上位于前和后轮之间的中途，和 / 或基本上位于被使用的婴儿车的质量中心的下方（例如，正下方）。在一些示例中，为了进一步改进转向和 / 或操纵性，中间轮定位成与前轮相比更接近于后轮，使得中间轮的中心与后轮的中心之间的距离小于中间轮的中心与前轮的中

心之间的距离。在一些示例中，与前轮相比将中间轮定位得更接近于后轮在操纵婴儿车越过诸如路缘之类的障碍时，便于提升婴儿车的前端。

[0037] 为了在婴儿车的前端相对于婴儿车的后端被提升或抬高时（例如，当婴儿车的前端被提升、枢转或倾斜以前进通过路缘时）改进婴儿车的控制或操纵性，在此公开的示例婴儿车采用了枢轴或枢转轮轴。在一些示例中，枢轴位于后轮和中间轮之间。结果，这样的示例婴儿车包括框架，当婴儿车的前端相对于婴儿车的后端被提升时，该框架相对于中间轮和后轮枢转。一些这样的婴儿车采用壳体、托架或承载架来将中间轮和后轮联接至车架的侧面框架组件。在一些实例中，框架例如经由套管联接（例如，枢转联接）至枢轴。另选地，在此公开的一些示例婴儿车的框架被安装至枢转轮轴和托架，一些这样的示例经由套管被联接至枢转轮轴。在此公开的示例托架可以使得联接至该托架的中间轮和后轮绕由枢转轮轴或枢转轴提供的枢轴相对于框架枢转。

[0038] 此外或另选地，为了提供更大的稳定性、便于平衡和/或便于提升婴儿车的前端，在此公开的一些示例婴儿车采用悬架装置。在一些这样的示例中，当婴儿车的前端绕由枢转轴提供的枢轴向上或远离一表面枢转时，悬架装置提供朝向框架的前端的反作用力。结果，悬架装置降低（例如，显著降低或防止）朝向后轮转移婴儿车的重量。换句话说，当婴儿车的前端绕枢转轴枢转时，悬架装置将婴儿车的质量中心保持在由中间轮和后轮限定的周界内。当示例婴儿车的手柄移动或绕枢转轮轴枢转来提升婴儿车的前端时，一些这样的示例的悬架装置提供了朝向中间轮和/或后轮的反作用力（例如，增加的力）。结果，当婴儿车的前轮相对于后轮和中间轮被提升或抬高时，一些这样的示例的悬架装置帮助保持后轮和中间轮与行进路径或地面接合。当婴儿车的前端被提升时帮助保持中间轮和后轮与地面接合有助于防止婴儿车绕其中一个后轮倾翻。

[0039] 为了便于或有助于折叠婴儿车，在此公开的一些示例婴儿车提供了辅助框架构件或杆。在一些这样的示例中，框架构件与婴儿车的框架的折叠枢轴间隔开，以使得当示例婴儿车被折叠至塌缩位置时，托架和因而联接至该托架的中间轮相对于框架旋转至存放位置。

[0040] 改进了婴儿车的稳定性、操纵性和/或转向控制的一些示例婴儿车在国际专利申请序列号 PCT/US2011/062669 中公开，该国际专利申请的全部内容通过引用合并于此。

[0041] 图 1 是依照在此公开的教导而构造的示例婴儿车 100 的立体图。图 1 的示例婴儿车 100 包括框架 102，该框架限定了用于容纳或支撑一个或多个儿童和/或婴儿座椅 106 的座椅区域 104。为了支撑婴儿座椅 106，所示示例的框架 102 包括一个或多个婴儿座椅安装件 108。更具体地，婴儿座椅 106 借助由座椅 106 和座椅安装件 108 提供的接口（例如，锁扣件或连接件）以可移除的方式联接至座椅安装件 108。为了从座椅安装件 108 移除婴儿座椅 106，由所述接口限定的连接件经由一释放装置（例如，弹簧加载的推动按钮）而释放。附加地或另选地，座椅安装件 108 可沿着框架 102 被调整，从而相对框架 102 和/或相对于彼此调整婴儿座椅 106 的位置。

[0042] 所示示例的框架 102 由位于框架 102 前端 112 处的一个或多个前轮 110 和位于框架 102 的后端 116 处的一个或多个后轮 114 支撑。所示示例的框架 102 被组装形成这样的结构，该结构旨在在其使用和存放的所有阶段中都保持被组装。附加地，为了改进操纵性、转向控制和/或提供震动吸收性，所示示例的框架 102 采用被布置在前轮 110 和后轮 114

之间的一个或多个中间轮 118。为了向示例婴儿车 100 提供震动吸收性，所示示例的中间轮 118、前轮 110 和 / 或后轮 114 可实施为由橡胶构成的可充气轮。如在所示示例中所示的，中间轮 118 的直径基本上类似或等于前轮 110 和后轮 114 的直径。

[0043] 在图 1 的所示示例中，中间轮 118 被定位成与前轮 110 相比更接近后轮 114。然而，在其它示例中，中间轮 118 可以被布置在前轮 110 和后轮 114 之间的近似中点处。所示示例的每个中间轮 118 均限定了枢轴（例如，转动枢转点）提供结构，该枢轴提供结构被布置或定位在前轮 110 和后轮 114 之间。因此，在所示的示例中，每个中间轮 118 均提供了用于婴儿车 100 的枢转点，该枢转点从婴儿车 100 的后端 116 和 / 或后轮 114 偏离或横向间隔开。因此，当使用者在使所有车轮 110、114 和 118 都与地面或行进表面接触的情况下沿向右方向，向左方向和 / 或以 360 度的转或圈转动所示示例的婴儿车 100（例如，通过向婴儿车 100 施加侧向力）时，婴儿车 100 的前端 112 和婴儿车 100 的后端 116 都能够绕由其中一个相应的中间轮 118 提供的转动枢轴或枢转点沿弧形路径枢转或旋转。

[0044] 如在示出的示例中所示的，中间轮 118 经由轮轴 120 相互联接，并且绕公共的旋转轴线 120a 旋转。然而，在其它示例中，轮轴 120 可被移除以使得中间轮 118 相对于彼此独立地驱动或旋转。此外，虽然示例婴儿车 100 包括两个中间轮 118，但其它示例婴儿车可以仅采用一个中间轮 118 或两个以上的中间轮 118。例如，婴儿车 100 可以包括在轮轴 120 上布置在第一和第二中间轮 118 之间的第三中间轮。

[0045] 由于中间轮 118 基本上位于婴儿车 100 的座椅区域 104 的下方（例如，垂直地与该座椅区域对齐），因此中间轮 118 吸收由儿童坐在所示示例的婴儿车 100 的婴儿座椅 106 中所提供的负载的大部分。换句话说，在所示的示例中，当使用者转动所示示例的婴儿车 100 时，坐在座椅区域 104 中的儿童的负载或重量大部分由中间轮 118 承载。结果，由儿童提供的负载绕由其中一个中间轮 118 提供的枢转点旋转。以这样的方式，婴儿车 100 和婴儿车 100 中的儿童的组合负载或重量与在没有中间轮 118 的情况下类似组合重量的婴儿车和儿童所需要力（或转矩）小的力（或转矩）来转动或枢转婴儿车 100。由于所示示例的婴儿车 100 中的儿童的重量（或质量中心）接近中间轮 118 的枢转轴线或枢转点，因此当儿童坐在座椅区域 104 中时枢转或转动所示示例的婴儿车 100 所需的力或转矩相对低。结果，所示示例的婴儿车 100 可以在相对紧密的转动半径的情况下相对轻松地绕由任一中间轮 118 提供的枢转点转动。例如，图 1 的示例婴儿车 100 可以在其自身的长度内转动 360 度。

[0046] 为了使得使用者能够推动，转动和 / 或倾斜所示示例的婴儿车 100，框架 102 包括具有把手 124 的手柄 122，使用者可以握住该把手 124 来移动、控制和 / 或转向婴儿车 100。此外，所示示例的手柄 122 邻近后轮 114。所示示例的婴儿车 100 包括具有辅助把手 124a 的辅助手柄 122a，以使得儿童或成人在沿着婴儿车 100 行走时能够握住辅助把手 124a 来进行支撑。辅助手柄 122a 通常并不用于操纵婴儿车 100，而是可以将其用作其它一些使用目的。手柄 122 经由手柄关节毂或接头 126 联接至框架 102，该手柄关节毂或接头使得手柄 122 能够相对于框架 102 调整。

[0047] 如在下文更详细地描述的，为了当操纵婴儿车 100 越过路缘或其它障碍时进一步改进稳定性和 / 或便于平衡，所示示例的示例婴儿车 100 采用悬架装置 128。更具体地，当婴儿车 100 的前端 112 经由手柄 122 相对于框架 102 的后端 116 枢转或倾斜时（例如，前端 112 相对于支撑表面（例如，地面）沿向上方向被提升），图 1 的示例悬架装置 128 提供

了稳定性和 / 或便于平衡。此外，如在下文结合图 2A、图 2B、图 3 和图 4 更详细地讨论的，示例婴儿车 100 采用轮轴 130，来使得当前端 112 相对于后轮 114 和中间轮 118 从行进表面被抬起、倾斜或升起时框架 102 能够围绕轮轴 130 的轴线 132 枢转。

[0048] 图 2 示出了婴儿车 100 的第一侧面视图或左侧面视图。图 3 示出了图 1 的示例婴儿车 100 的第二侧面视图或右侧面视图。参考图 2 和图 3，所示示例的框架 102 包括第一侧面框架组件 202a，该第一侧面框架组件与第二侧面框架组件 202b 横向间隔开而限定座椅区域 104。所示示例的第一侧面框架组件 202a 和第二侧面框架组件 202b 基本上类似或相同并且是对称的。所示示例的手柄 122 在侧面框架组件 202a、202b 之间延伸，并且可以由弯曲成大体 U 型的结构的单个管件形成。

[0049] 参考图 2 和图 3，所示示例的侧面框架组件 202a、202b 均包括下框架支撑件 204、上框架支撑件 206 和中间框架支撑件 208。在示出的示例中，框架支撑件 204、206 和 208 具有基本上线性的轮廓（例如，直的和 / 或平坦的轮廓）。然而，在其它示例中，框架支撑件 204、206 和 208 可以是任何形状的，包括大体上弯曲的形状或具有一个或多个弯曲和 / 或线性部分的形状。

[0050] 为了使得所示示例的婴儿车 100 沿至少一个方向折叠或塌缩，第一侧面框架组件 202a 的框架支撑件 204、206 和 208 经由第一枢转连接件或枢转接头 210a 被枢转地联接。更具体地，连接件或枢转接头 210a 由毂 212a（例如，T 形毂）限定，以接收第一侧面框架组件 202a 的每个框架支撑件 204、206 和 208 的相应端。所示示例的毂 212a 使得框架支撑件 204、206 和 208 能够相对彼此枢转，以例如如在下文更详细地讨论的塌缩婴儿车 100。相似地，第二侧面框架组件 202b 的框架支撑件 204、206 和 208 在第二枢转连接件或枢转接头 210b 处枢转地联接。更具体地，连接件或枢转接头 210b 由毂 212b（例如，T 形毂）限定，以接收第二侧面框架组件 202b 的每个框架支撑件 204、206 和 208 的相应端部。与毂 212a 一样，毂 212b 使得第二侧面框架组件 202b 的框架支撑件 204、206 和 208 能够相对于彼此枢转。

[0051] 参考图 3，所示示例的每个毂 212a、212b 均包括：第一腿或开口 214a，该第一腿或开口以接收下框架支撑件 204 的第一端 204a 或联接至该第一端 204a；第二腿或开口 214b，该第二腿或开口以接收上框架支撑件 206 的第一端 206a 或联接至该第一端 206a；以及第三腿或开口 214c，该第三腿或开口以接收中间框架支撑件 208 的第一端 208a 或联接至该第一端 208a。在这一示例中，毂 212a、212b 还包括第四腿或开口 214d，以接收辅助手柄 122a 的端部。腿 214a 至 214c 使得当毂 212a、212b 的锁定机构（例如，锁闩）处于释放或解锁状态时框架支撑件 204、206 和 208 能够绕相应的枢转连接件 210a、210b 相对于彼此枢转。当毂 212a、212b 的锁定机构处于解锁状态时，框架支撑件 204、206 和 208 不能绕相应的枢转连接件 210a、210b 相对于彼此枢转。毂 212a、212b 的锁定机构可经由释放致动器 216 移动至解锁状态，所述释放致动器位于可以由使用者致动的上框架支撑件上。

[0052] 参考图 2，当框架 102 直立时，第一侧面框架组件 202a 的下框架支撑件 204 和上框架支撑件 206 相对于彼此基本上对齐或平行，使得下框架支撑件 204 的轴线 218 基本上与上框架支撑件 206 的轴线 220 对齐。然而，在其它示例中，当框架 102 处于直立状态时，下框架支撑件 204 可以相对于上框架支撑件 206 定位在任意角度。例如，下框架支撑件 204 的轴线 218 与上框架支撑件 206 的轴线 220 之间的角度 222 可以在近似 100 度至 200 度之

间。

[0053] 所示示例的中间框架支撑件 208 从相应的毂 212a 和 212b 朝向后轮 114 伸出。为了使得框架 102 能够相对于中间轮 118 和 / 或后轮 114 枢转，中间框架支撑件 208 枢转地联接至轮轴 130（图 1）。更具体地，在示出的示例中，中间框架支撑件 208 的第二端 208b 经由连接件或套管 211 被联接至轮轴 130（图 1）。所示示例的套管 211（其包括轴向联接至轮轴 130 的部分）使得中间框架支撑件 208 且因此使和下框架支撑件 204 和上框架支撑件 206 能够绕轮轴 130 的轴线 132 枢转。

[0054] 当联接至相应的枢转接头 110a 和轮轴 130 时，所示示例的中间框架支撑件 208 基本上垂直于下框架支撑件 204 和上框架支撑件 206。换句话说，由中间框架支撑件 208 限定的轴线 224 相对于下框架支撑件 204 的轴线 218 和上框架支撑件的轴线 220 呈大致九十度的角度。然而，在其它示例中，中间框架支撑件 208 可以相对于下框架支撑件 204 和 / 或上框架支撑件 206 呈任何不同的角度。例如，中间框架支撑件 208 的轴线 224 和下框架支撑件 204 的轴线 218 之间的角度 226a 和 / 或中间框架支撑件 208 的轴线 224 和上框架支撑件 206 的轴线 220 之间的角度 226b 可以是小于九十度或大于九十度的任何其它合适的角度。

[0055] 参考图 2 和图 3，为了将所示示例的前轮 110 安装或附接至侧面框架组件 202a、202b 中的一者，所示示例的每个前轮 110 都包括前轮毂体 230。例如，前轮壳体 230 可以被联接或附接至下框架支撑件 204 件的一端。所示示例的每个前轮壳体 230 均包括以可旋转的方式安装至连接件 234 的叉或轮支撑件 232。每个前轮 110 均可以以可旋转的方式轴颈连接至轮支撑件 232，以使得每个前轮 110 都能够绕单独的旋转轴线 236a、236b（例如，相对于供定位婴儿车 100 的水平地面基本上水平的轴线）独立地旋转。附加地，为了改进转向，所示示例的每个前轮 110 都能够绕基本上垂直于对应的旋转轴线 236a、236b 的对应的基本上竖直的轴线 238a、238b 旋转，回转或枢转。在所示示例中，由于对应的轮支撑件 232 和对应的连接件 234 之间的枢转连接件，因此前轮 110 能够绕对应的竖直轴线 238a、238b 枢转。

[0056] 为了将后轮 114 和中间轮 118 安装或附接至相应的侧面框架组件 202a、202b，所示示例的每个侧面组件 202a、202b 都采用壳体或托架 240（例如，摇摆件）。所示示例的托架 240 是整体件或整体结构。更具体地，所示示例的托架 240 包括或限定了毂 242，该毂将后轮 114 和中间轮 118 附接或联接至框架 102。在示出的实例中，轮轴 130 轴颈连接在托架 240 上。示例托架 240 可相对于框架 102 和 / 或中间框架支撑件 208 枢转。所示示例的每个毂 242 都包括：第一部分或腿 242a，该第一部分或腿用于接收其中一个后轮 114 或者联接至其中一个后轮 114；以及第二部分或腿 242b，该第二部分或腿用于接收其中一个中间轮 118 或者联接至其中一个中间轮 118。

[0057] 例如，示例托架 240 的第一部分 242a 接收后轮壳体 244，该后轮壳体具有以可旋转的方式安装至连接件 248 的叉或后轮支撑件 246，所述连接件 248 安装至（例如，通过螺钉）托架 240 或与该托架一体地形成。每个后轮 114 都以可旋转的方式安装至后轮支撑件 246，以使得每个后轮 114 都能够绕单独的旋转轴线 250a、250b（它们中的每一个都是相对于供定位婴儿车的水平地面的基本上水平的轴线）独立地旋转。附加地，为了改进转向，所示示例的每个后轮 114 都能够绕基本上垂直于相应的旋转轴线 250a、250b 的基本上竖直的轴线 252a、252b 旋转、回转或枢转。在示出的实例中，后轮 114 由于位于对应的轮支撑件 246 和

/或托架 240 和对应的连接件 248 之间的枢转连接件而能够绕相应的竖直轴线 252a、252b 枢转。

[0058] 在示出的示例中，每个中间轮 118 都经由臂或框架构件 254 联接至相应的托架 240。在示出的示例中，臂 254 的第一端 254a 被联接或固定至托架 240 的第二部分 242b，并且臂 254 的第二端 254b 限定中间轮 118 的毂 256 或被联接至中间轮 118 的毂 256。臂 254 在被联接至托架 240 时沿远离后轮 114 且朝向前轮 110 的方向从托架 240 伸出，以在后轮 114 和前轮 110 之间定位中间轮 118。如在所示的示例中所示的，臂 254 将中间轮 118 定位得与前轮 110 相比更接近后轮 114。然而，在其它示例中，臂 254 可以被构造成将中间轮 118 定位在前轮 110 的旋转轴线 236a、236b 和后轮 114 的旋转轴线 250a、250b 之间的近似中点处。所示示例的臂 254 的中间轴线 258（图 2）相对于中间框架支撑件 208 的中心轴线 224 成角度 260（例如，基本上垂直）。如在下文中更详细地描述的，当中间框架支撑件 208 和/或框架 102 相对于托架 240 绕由轮轴 130 限定的轴线 132 枢转时，角度 260 发生改变。

[0059] 如上文注意到的，所示示例的中间轮 118 被安装在在侧面框架组件 202a、202b 之间延伸的轮轴 120 上（图 1）。因此，轮轴 120 以可旋转的方式联接中间轮 118。结果，所示示例的中间轮 118 绕轮轴 120 的旋转轴线 120a 旋转。然而，虽然所示示例的中间轮 118 能够绕旋转轴线 120a 旋转，但中间轮 118 被固定而不能在其它方向上回转或枢转（例如，与前轮 110 和后轮 114 不一样，中间轮 118 不能绕基本上垂直于相应的旋转轴线 120a 的基本上竖直的轴线 264a、264b 旋转）。结果，当婴儿车 100 在基本上直的路径中移动或被推动时，图 1 的示例婴儿车 100 的中间轮 118 阻止婴儿车 100 的横向漂移。然而，在其它示例中，中间轮 118 可以相对于框架 102 绕竖直轴线 264a、264b 旋转。

[0060] 如上文注意到的，所示示例的中间轮 118 限定了枢轴或枢转点，所示示例的婴儿车 100 可以绕这些枢轴或枢转点转动。换句话说，所示示例的每个中间轮 118 都限定布置于前轮 110 和后轮 114 之间的枢转点。例如，当相对于站在婴儿车之后且抓握手柄 122 的使用者的取向沿向左方向（例如，从婴儿车 100 的上方向下看的顺时针方向）向所示示例的婴儿车 100 的手柄 122 施加足够力时，婴儿车 100 绕第二框架组件 204b 的（右侧）中间轮 118 枢转，使得前轮 110 在朝向第二侧面框架组件 202b 的方向上沿着弧形路径移动，并且使得后轮 114 在朝向第一侧面框架组件 202a 的方向上沿着弧形路径移动。同样，当相对于抓握手柄 122 的使用者的取向沿向右方向（例如，从婴儿车 100 的上方向下看的逆时针方向）向婴儿车 100 的手柄 122 施力时，所示示例的婴儿车 100 绕第一框架组件 202a 的（左侧）中间轮 118 枢转，使得前轮 110 在朝向第一侧面框架组件 202a 的方向上沿着弧形路径移动，并且使得后轮 114 在朝向第二侧面框架组件 202b 的方向上沿着弧形路径移动。在一些示例中，婴儿车可以在其自身的总长或包络尺寸内转动 360 度。

[0061] 图 4 是图 1 至图 3 的示例婴儿车 100 的侧视图。在图 4 的所示示例中，第一侧面框架组件 202a 的托架 240 经由轮轴 130（图 1）的第一端被联接或安装至框架 102。第二侧面框架组件 202b 的托架 240 基本上与第一侧面框架组件 202a 的托架 240 相同，并且以与第一侧面框架组件 202a 的托架 240 相同的方式被安装至轮轴 130 的第二端。因此，下面的描述将集中于一个托架，来用作对两个托架 240 的说明。托架 240 以及因此附接至该托架的中间轮 118 和后轮 114 可以相对于中间框架支撑件 208（例如，经由套管）绕由轮轴 130 限定的轴线 132 枢转。结果，中间框架支撑件 208 和/或相应的左侧面框架组件 202a 和右

侧面框架组件 202b 的托架 240 可以相对于彼此绕由轮轴 130 和 / 或轴线 132（图 1）限定的枢轴 404 枢转。例如，中间框架支撑件 208、框架 102 和 / 或托架 240 可以绕由轴线 132 限定的枢转点 404 在旋转方向 402 上枢转（例如，绕轴线 132 的顺时针和逆时针旋转）。虽然第一侧面框架组件 202a 的托架 240 可以相对于第二侧面框架组件 202b 的托架 240 绕由轮轴 130 限定的轴线 132 枢转，但在中间轮 118 之间延伸的轮轴 120（图 1）连接或联接每个托架 240 的相应的中间轮 118。结果，所示示例的第一侧面框架组件 202a 的托架 240 和第二侧面框架组件 202b 的托架 240 一起绕轴线 132 旋转或枢转。然而，在没有使用轮轴 120 的示例中，第一侧面框架组件 202a 的托架 240 可以绕轴线 132 相对于第二侧面框架组件 202b 的托架 240 和 / 或中间框架支撑件 208 独立地旋转或枢转。

[0062] 所示示例的枢转点 404 位于中间轮 118 和后轮 114 之间。具体地，枢转点 404 位于中间轮 118 的旋转轴线 120a 和后轮 114 的旋转轴线 250a、250b 之间。同样，在这一示例中，枢轴 404 相对于旋转轴线 120a 和 250a、250b 偏移（例如，至少在上方定位）。结果，中间轮 118 和后轮 114 可以相对框架 102 枢转，以移动和 / 或跟随轮廓行进表面。因此，可以导致前端 112 相对于后端 116 提升或抬起（或另选地，下降）的在行进表面中的一些轮廓变化将不导致中间轮 118 和 / 或后轮 114 分离或抬离行进表面。例如，图 4 的所示示例的婴儿车 100 被示出为从通过虚线示出的初始位置 408 移动或移位至第一位置 406。换句话说，随着框架 102 绕枢轴 404 枢转或倾斜，臂 254 的轴线 258 和中间框架支撑件 208 的轴线之间的角度 260 在当框架 102 处于初始位置 408 时的第一角度 410 和当框架 102 处于第一位置 406 时的第二角度 412 之间改变。

[0063] 为了限制中间框架支撑件 208 可以相对于托架 240 枢转的角度 260（例如，在中间框架支撑件 208 与臂 254 之间的角度），所示示例的婴儿车 100 采用一个或多个行进限制件。在示出的示例中，行进限制件是物理障碍件（例如，止动件），这些物理障碍件借助中间框架支撑件 208 和 / 或臂 254 接合，以阻挡沿相应方向的进一步旋转运动。所示示例的婴儿车 100 采用位于轮轴 130 上的行进限制件 403，以限制中间框架支撑件 208 可以相对于托架 240 或臂 254 在第一旋转方向 404a（例如，顺时针方向）上可以枢转的角度 260。例如，中间框架支撑件 208 的轴线 224 与臂 254 之间的角度 260 可以被限制至近似 0 至 120 度。在其它示例中，行进限制件 403 可以位于托架 240 和 / 或中间框架支撑件 208 上。在一些示例中，可以使用两个行进限制件来限制中间框架支撑件 208 可以相对于托架 240 或臂 254 枢转的角度 260。在其它示例中可以采用行进限制件的其它位置、构件和 / 或构造。

[0064] 图 5A 和图 5B 示出了相应的侧面框架组件 202a、202b 的局部后部立体图。参考图 5A 和图 5B，当框架 102 绕枢轴 404 枢转时为了进一步帮助支撑框架 102，所示示例的婴儿车 100 采用悬架装置 128。所示示例的示例悬架装置 128 是联接至轮轴 130、中间框架支撑件 208 和 / 或套管 211 的扭转弹簧 502。例如，图 5A 的第一侧面框架组件 202a 包括第一扭转弹簧 502，并且图 5B 的第二侧面框架组件 202b 具有第二扭转弹簧 502。每个扭转弹簧 502 都具有由中间框架支撑件 208 联接或接合的第一部分 502a 以及联接或固定至轮轴 130 的第二部分 502b。结果，中间框架支撑件 208 绕轴线 132 在方向 402a 上的旋转导致每个扭转弹簧 502 的第一部分 502a 相对于扭转弹簧 502 的第二部分 502b 移动，因而增加了由每个扭转弹簧 502 提供的张力或力。在其它示例中，扭转弹簧 502 是整体弹簧，该整体弹簧沿着轮轴 130 的长度延伸，轮轴 130 的相应端部联接至第一侧面框架组件 202a 和第二侧面框架

组件 202b（例如，中间框架支撑件 208、托架 240 等）。在其它示例中，悬架装置 128 可以是联接至轮轴 130 的板簧和 / 或扭转杆，位于上框架支撑件 206 和托架 240 之间的流体缸，和 / 或当婴儿车 100 的手柄 122 绕枢轴 404 朝向后轮 114 移动或枢转时提供反作用力或增加的力的任何其它悬架装置。

[0065] 所示示例的示例托架 240 还支撑制动装置的一部分。示例婴儿车 100 的制动装置可在防止或限制相应在的中间轮 118 和 / 或后轮 114 旋转的锁定位置和使得中间轮 118 和 / 或后轮 114 能够旋转的解锁位置之间选择性地移动。为了在锁定和解锁位置之间移动制动装置，所示示例的婴儿车 100 采用由托架 240 支撑的制动杆或脚踏板 504。所示示例的制动杆 504 可以相对于托架 240 被按压，从而摩擦性地接合或阻碍相应的后轮 114 绕它们的旋转轴线 250a、250b 旋转。

[0066] 图 6 是图 1 至图 4、图 5A 和图 5B 的示例婴儿车 100 的侧面视图，框架 102 的前端 112 相对于框架 102 的后端 116 被向上提升或倾斜。更具体地，图 6 的所示示例中的前轮 110 相对于供定位中间轮 118 和后轮 114 的表面 604 位于升高表面 602 上。在示出的示例中，升高表面 602 可以是路缘 606 或台阶的顶面。此外，如上面结合图 4 所注意到的，用于限制中间框架支撑件 208 可以绕轮轴 130 枢转的旋转距离（例如，五度的旋转）的行进限制件 403 足以使得在中间轮 118 和后轮 114 保持在下表面 604 上的情况下婴儿车 100 的前端 112 能够克服（例如，到达其顶部）路缘 606（例如 5 英寸的高度）。

[0067] 当框架 102 的前端 112 绕枢轴 404 向上枢转（例如，绕枢轴 404 在顺时针方向上）时，悬架装置 128 朝向前端 112 提供反作用转矩或力（例如，增加的力）来增强稳定性。为了增强稳定性，悬架装置 128 通常减缓或分散在侧面框架组件 202a、202b 之间施加至手柄 122 的向下力，并且支撑婴儿车 100 的重量，在当婴儿车 100 的前端 112 被提升、枢转或倾斜（例如，为了前进经过路缘或台阶 606）时中间框架支撑件 208 绕枢轴 404 在方向 608 上移动时，该重量否则可以朝向框架 102 的后端 116 移位（例如，远离中间轮 118）。例如，当框架 102 的前端 112 绕枢轴 404 枢转或倾斜时，由悬架装置 128 提供的反作用力或转矩阻止（例如，显著降低或防止）婴儿车 100 的质量中心（例如，婴儿车和 / 或位于座椅区域 104 中的儿童的重量）远离中间轮 118 且朝向后轮 114 移位。换句话说，反作用力将婴儿车 100 的质量中心保持或定位成基本上对齐和 / 或邻近中间轮 118。为了当婴儿车 100 的前端 112 相对于框架 102 的后端 116 向上倾斜时便于控制婴儿车 100，悬架装置 128 帮助将婴儿车 100 的质量中心保持或定位在后轮 114 的旋转轴线 250a、260b 和中间轮 118 的旋转轴线 120a 之间。

[0068] 结果，除了由座椅区域 104（图 1）中的儿童提供的负载之外，悬架装置 128 向中间轮 118 和 / 或后轮 114 提供有效的向下偏压力。以这一方式，当前轮 110 相对于后轮 114 和中间轮 118 被抬高或提离表面 604 时，悬架装置 128 通过帮助保持中间轮 118 和 / 或后轮 114 与行进路径或表面 604（例如，地面）保持接合和 / 或接触而便于平衡婴儿车 100 和 / 或改进婴儿车 100 的稳定性。当婴儿车 100 的前端 112 被提升时保持中间轮 118 和后轮 114 与表面 604 接触帮助防止婴儿车 100 绕其中一个后轮 114 倾翻（例如，向侧面的施加转矩）。如果没有悬架装置 128，则当婴儿车 100 的前端 112 相对于后端 116 被提升（例如，在向上方向上）时，使用者将需要施加较大的力来平衡婴儿车 100 且保持中间轮 118 和后轮 114 与地面接触。

[0069] 所示示例的中间轮 118 基本上没有增加婴儿车 100 的总体包络尺寸。具体地，中间轮 118 没有显著地影响所示示例的婴儿车 100 塌缩为紧凑轮廓的能力。图 7 和图 8 示出了图 1 的示例婴儿车 100 被从图 1 至图 6 中所示的使用中的未折叠位置折叠成图 8 中所示的塌缩，折叠或存放位置 800。如上文注意到的，侧面框架组件 202a、202b 构造得使得所示示例的整个婴儿车 100 可在延伸、展开、使用位置（图 1 至图 6）与塌缩，折叠或存放位置 800（图 8）之间选择性地移动。当婴儿车 100 处于塌缩位置 800 时，所示示例的婴儿车 100 具有低轮廓或紧凑的包络尺寸。当婴儿车 100 处于展开位置（图 1 至图 6）和 / 或折叠位置 800（图 8）时，所示示例的中间轮 118 没有显著地增加所示示例的婴儿车 100 的总体包络尺寸。此外，中间轮 118 不干涉将婴儿车 100 折叠至折叠位置 800。

[0070] 为了保持婴儿车 100 处于使用或展开位置，所示示例的婴儿车 100 的每个毂 212a、212b 都包括锁闩机构。所示示例的锁闩机构包括由棘爪、锁、弹簧和 / 或其它任何机构固定的锁闩盘，以将所示示例的框架 102 锁定并保持在使用位置。任何已知的锁闩可被用于这一角色。所采用的锁闩机构对于这一公开是不重要的。锁闩机构将毂 212a、212b 以及固而将框架支撑件 204、206 和 208 保持在锁定状态，以防止框架支撑件 204、206 和 208 相对彼此旋转（以由此防止婴儿车 100 塌缩）。为了塌缩所示示例的婴儿车 100，释放装置 216 被致动（例如，被滑动和 / 或按压），以解锁锁闩机构并且使得毂 212a、212b 的相应部分 214a 至 214c 能够相对于彼此旋转。更具体地，在解锁状态下，框架支撑件 204、206 和 / 或 208 不相对于彼此绕由枢转连接件 210a、210b 提供的枢轴 704 旋转或枢转。在示出的示例中，所示示例的下框架支撑件 204 和上框架支撑件 206 沿由各箭头 706 和 708 示出的方向朝向中间框架支撑件 208 枢转到图 7 和 8 中示出的构造。此外，当将婴儿车 100 折叠至折叠位置 800 时，所示示例的托架 240 也在由箭头 710 表示的方向上朝向中间框架支撑件 208 旋转。托架 240 沿箭头 710 的方向的旋转没有被上面讨论的行进限制件 403 阻碍。相反地，如上面注意到的，行进限制件 403 限制托架 240 在方向 403a 上的旋转，该方向 403a 是箭头 710 的相反方向。

[0071] 如图 8 所示，在完全塌缩、折叠或存放位置 800 中，所示示例的婴儿车 100 具有相对低的轮廓或包络尺寸以及相对小的轮廓。在折叠位置 800 中，后轮壳体 244 的轴线 802 相对于中间框架支撑件 208 的轴线 244 基本上对齐（例如，稍微偏离）。虽然示出了可塌缩的框架 102，但在一些示例中，婴儿车并不塌缩。

[0072] 在一些示例中，座椅安装件 108 可以在婴儿车 100 处于折叠位置 800 之前或之后相对于框架 102 被折叠。例如，图 9A 和图 9B 示出了相对于框架 102 折叠的示例座椅安装件 108。所示示例的座椅安装件 108 被枢转地联接或附接至婴儿车 100 的连接件或壳体 902 和 / 或框架 202。所示示例的每个座椅安装件 108 都相对于连接件 902 或框架 202 绕枢转点 904 在第一竖立或使用位置 906 和第二或下降折叠位置 908 之间枢转。在图 9B 的所示示例中，在第一位置 906，座椅安装件 108 的锁闩 910（例如，伸出构件或突出部）接合框架 202 中的开口或凹部 912，以锁定或限制座椅安装件 108 相对于框架 202 和 / 或连接件 902 绕枢转点 904 旋转。为了折叠座椅安装件 108，将锁闩 910 从凹部 912 移动或撤回，以使得座椅安装件 108 能够相对于框架 202 和 / 或连接件 902 旋转。在折叠位置 908，锁闩 910 接合第二凹部 914 以防止当婴儿车 100 处于塌缩状态 800 时座椅安装件 108 意外地或无意地绕枢转点 904 枢转。

[0073] 在一些示例中，座椅安装件 108 可以在婴儿车 100 处于折叠位置 800 之前或之后相对于框架 102 被移除。例如，图 10 示出了被从连接件 902 或框架 202 的开口或凹口 1002 移除的示例座椅安装件 108。为了从连接件 902 和 / 或框架 102 移除座椅安装件 108，将座椅安装件 108 固定至连接件 902 和 / 或框架 102 的锁或锁闩机构被释放，并且将座椅安装件 108 从开口 1002 移除。

[0074] 图 11 示出了另一示例婴儿车 1100。图 11 的示例婴儿车 1100 基本上类似或等同于图 1 至图 8 的婴儿车 100。然而，不同于图 1 的婴儿车 100，图 11 的示例婴儿车 1100 仅具有一个婴儿座椅 106。在一些示例中，图 1 的婴儿车 100 可被构造或转换为图 11 的婴儿车 1100。例如，图 1 的其中一个座椅 106 可以被从框架 102 移除，并且与被移除的婴儿座椅 106 相关联的座椅安装件 108 可以被从框架 102 移除。在图 1 至图 11 的示例中，座椅安装件 108 是卡口型安装件。

[0075] 图 12 示出了另一示例婴儿车 1200。基本上类似或等同于上面描述的图 1 至图 8 的示例婴儿车 100 的部件、并且具有基本上类似或等同于那些部件的功能的示例婴儿车 1200 的那些部件在下文将不再详细地描述。相反地，感兴趣的读者将参考上文的相应描述。为了便于这一过程，对于相似结构的将使用相似的附图标记。例如，在图 12 的所示示例中，示例婴儿车 1200 包括框架 1202，该框架具有用于支撑该框架 102 的前端 112 的一个或多个前轮 110 以及用于支撑该框架 102 的后端 116 的一个或多个后轮 114。所示示例的框架 1202 包括彼此横向间隔开的第一侧面框架组件和第二侧面框架组件，以容纳在这些侧面框架组件之间延伸的一个或多个婴儿座椅 106。每个侧面框架组件都包括绕由枢轴连接件 210 提供的枢轴 704 枢转地联接的下框架支撑件 204、上框架支撑件 206 和中间框架支撑件 208。托架或壳体 240 绕由在框架 1202 的侧面框架组件之间延伸的轮轴 130 提供的枢转点 404 枢转地连接中间轮 118 和后轮 114。

[0076] 图 12 的示例婴儿车 1200 具有框架 1202，该框架 1202 基本上类似或等同于图 1 至图 8 的示例婴儿车 100 的框架 102。然而，图 12 的所示示例的婴儿车 1200 具有不同的手柄 1222。手柄 1222 可以相对于上框架支撑件 206 活动连接在第一或上部位置 1204 和第二或下部位置 1206 之间。为了使得手柄 1222 能够相对于上框架支撑件 206 活动连接，示例婴儿车 1200 采用枢转接头或活动连接毂 1208。毂 1208 采用锁闩机构，以将手柄 1222 锁定或保持在上部位置 1204 和下位置 1206 之间的位置。为了释放锁闩机构以使得手柄 1222 能够在上部位置 1204 和下部位置 1206 之间活动连接，框架 1202 包括释放装置 1210（例如，推动按钮）。

[0077] 图 13 是联接至图 12 的上框架支撑件 206 的示例手柄 1222 的平面图。如在图 13 的所示示例中所示的，示例婴儿车 1200 采用锁闩释放装置 1302 来塌缩所示示例的婴儿车 1200。为了起动锁闩释放装置 1302，该释放装置的一个或多个触发器 1304a、1304b 相对于上框架支撑件 206 移动（例如，拉动、推动、扭动、滑动等），以解锁由枢转连接件 210 提供的闩锁或锁定。此外，当被起动时，锁闩释放装置 1302 还释放毂 1208 的锁闩机构，以使得手柄 1222 能够相对于上框架支撑件 206 旋转。

[0078] 图 14 和图 15 示出了图 12 的示例婴儿车 1200，该婴儿车从图 12 中所示的使用中的展开位置被折叠到图 15 中所示的塌缩、折叠或存放位置 1500。更具体地，在未被锁定的情况下，框架支撑件 204、206 和 / 或 208 相对彼此而枢转。参考图 14，当锁闩释放装置 1302

被起动时，手柄 1222 绕毂 1208 朝向上框架支撑件 206 在图 14 的取向中沿绕毂 1208 的逆时针方向枢转，然后手柄 1222 和上框架支撑件 206 朝向中间框架支撑件 208 枢转。

[0079] 下框架支撑件 204 和上框架支撑件 206 相对于中间框架支撑件 208 绕枢轴 704 旋转。如图 15 所示，在完全塌缩、折叠或存放位置 1500 中，所示示例的婴儿车 1200 具有相对低的轮廓或包络尺寸。

[0080] 图 16 示出了依照在此公开的教导构造的另一示例婴儿车 1600。基本上类似或等同于上面描述的示例婴儿车 100 的部件、并且具有基本上类似或等同于那些部件的功能的示例婴儿车 1600 的那些部件在下文将不再详细地描述。相反地，感兴趣的读者将参考上文的相应描述。为了便于这一过程，对于相似的结构将使用相似的附图标记。

[0081] 图 16 是示例婴儿车 1600 的立体图。在图 16 的所示示例中，示例婴儿车 1600 包括框架 1602，该框架 1602 限定了用于接收一个或多个婴儿座椅 106 的座椅区域 104。所示示例的框架 1602 采用座椅安装件 108 来将婴儿座椅 106 接收或联接至框架 1602。在一些示例中，安装件 108 可被相对于框架 1602 调整。为了使得使用者能够推动、转动和 / 或倾斜所示示例的婴儿车 1600，框架 1602 包括手柄 1622。所示示例的手柄 1622 可相对于框架 1602 沿方向 1622a 被伸缩性地调整。

[0082] 所示示例的框架 1602 由位于框架 1602 的前端 112 处的一个或多个前轮 110 和位于框架 1602 的后端 116 处的一个或多个后轮 114 支撑。所示示例的框架 1602 被组装形成这样的结构，该结构旨在在其使用和存放的全部阶段中保持组装。此外，为了改进操纵性、控制转向和 / 或为了提供震动吸收性，所示示例的框架 1602 采用布置在前轮 110 和后轮 1114 之间的一个或多个中间轮 118。为了向示例婴儿车 1600 提供震动吸收性，所示示例的中间轮 118、前轮 110 和 / 或后轮 114 可以被实施为由橡胶组成的可充气车轮。

[0083] 此外，所示示例的中间轮 118 的直径大于相应的前轮 110 和后轮 114 的直径。在这一示例中，相应的前轮 110 和后轮 114 的直径基本上是相同的。因此，前轮 110 和后轮 114 以比中间轮 118 相对较小的部分或接触面积接合行进表面。结果，由于与中间轮 18 的接合行进表面的接触面积相比，相应的前轮 110 和 / 或后轮 114 的接合行进表面的接触面积相对较小，因此前轮 110 和 / 或后轮 114 的滚动摩擦降低。此外，中间轮 118 的较大直径允许所示示例的婴儿车 1600 滚过粗糙或不平坦表面而没有困难。然而，在其它示例中，中间轮 118 的直径基本上类似或等同于前轮 110 和 / 或后轮 114 的直径。

[0084] 图 17 是示例婴儿车 1600 的侧面视图，该婴儿车具有柔软品 1702 来限定一个或多个存放区域 1704。在图 17 的所示示例中，示例婴儿车 1600 的中间轮 118 位于前轮 110 和后轮 114 之间的近似中点。所示示例的每个中间轮 118 都限定布置在前轮 110 和后轮 114 之间的枢转点。换句话说，每个中间轮 118 都提供了用于婴儿车 1400 的枢转点，该枢转点偏离婴儿车 1400 的后端 116 和 / 或后轮 114 或者与婴儿车 1400 的后端 116 和 / 或后轮 114 横向间隔开。当侧向或基本上水平的力被施加至手柄 1422 时，由中间轮 118 提供的枢转点使得婴儿车 1400 能够相对轻松地向左或向右转动。

[0085] 图 18 是图 14 的示例婴儿车 1400 的顶面视图。如图 18 所示，由中间轮 118 提供的偏移枢转点使得婴儿车 1400 的前端 112 和婴儿车 1400 的后端 116 二者都能够相对于由其中一个中间轮 118 提供的转动枢轴以弧形路径枢转或旋转。例如，使用者可以向手柄 1622 施加转动力 1802，以绕由其中一个中间轮 118 提供的枢转点转动所示示例的婴儿车 1600。

结果，所示示例的婴儿车 1600 可以相对紧密的旋转半径且相对轻松地绕由任一个中间轮 118 提供的枢转点转动。例如，婴儿车 1600 可以基本上在其自身长度内以完全 360 度的弧形路径转动，如由图 18 中的圆圈 1800 所反映的。

[0086] 在所示示例中，框架 1602 限定了第一侧面框架组件 1802a 和与该第一侧面框架组件 1802a 横向间隔开的第二侧面框架组件 1802b，从而限定了座椅区域 104。所示示例的中间轮 118 经由在侧面框架组件 1802a、1802b 之间延伸的轮轴 120 而彼此联接。然而，在其它示例中，可以不使用公共轮轴 120 并且中间轮 118 因此可以不相对于彼此独立地驱动或旋转。

[0087] 此外，为了当框架 1602 的前端 112 相对于框架 1602 的后端 116 被升起、提升、倾斜或以其它方式抬高时（例如，向手柄 1622 施加垂直于转动力 1802 的向下力）提供枢转轴线 132，所示示例的示例婴儿车 1600 采用轮轴 130。在所示的示例中，枢转轴线 132 位于中间轮 118 与后轮 114 之间。换句话说，枢转轴线 132 相对于中间轮 118 的旋转轴线 120a 与后轮 114 的相应旋转轴线 250a、250b 偏移。

[0088] 为了改进稳定性和 / 或便于在具有很小干涉或没有干涉的情况下塌缩婴儿车 1400，所示示例的中间轮 118 相对于前轮 110 偏移（水平）距离 1804 且相对于后轮 114 偏移距离 1806。更具体地，当婴儿车 1600 沿直线移动时，所示示例的中间轮 118 沿着路线或路径 1808 行进，所述路线或路径 1808 在前轮 110 下降或行进所沿的路线或路径 1810 的外侧以及在后轮 114 下降或行进所沿的路线或路径 1812 的外侧延伸。虽然所示示例的中间轮 118 比起前轮 110 和后轮 114 与婴儿车 1600 的纵向中心线 1814 间隔开更远的距离，但在其它示例中，中间轮 118 可以与前轮 110 和后轮 114 对齐，可以向前轮 110 和后轮 114 的内侧偏移（也就是，更接近于纵向中心线 1814），和 / 或可以向前轮 110 和后轮 114 中的第一者的外侧和向前轮 110 和后轮 114 中的不同的第二者的内侧偏移。在一些示例中，当婴儿车 1400 沿直线向前移动时，前轮 110 和后轮 114 沿着相同路线或行进路径下降。

[0089] 为了塌缩婴儿车 1600，所示示例的框架 1602 包括锁闩释放机构 1816。为了起动锁闩释放机构 1816，所示示例的锁闩释放机构 1816 包括手柄 1818。手柄 1818 支撑在延伸穿过侧面框架组件 1802a、1802b 的横杆或管 1820 上。手柄 1818 定位或位于座椅安装件 108 或上框架支撑件 206 的附近，在座椅区域 104 的婴儿座椅 106 的正下方。这一定位便于在从座椅安装件 108 移除婴儿座椅 106 时进行接近。

[0090] 图 19 是图 16 至图 18 的示例婴儿车 1600 的侧面框架组件 1802a 的左侧视图。图 20 是图 16 至图 18 的示例婴儿车 1600 的侧面框架组件 1802b 的右侧视图。参考图 19 和图 20，每个侧面框架组件 1802a、1802b 都包括绕枢转连接件 210a、210b 或毂 212a、212b 枢转地联接的下框架支撑件 204、上框架支撑件 206 和中间框架支撑件 208。

[0091] 为了将前轮 110 联接至框架 1602，侧面框架组件 1802a、1802b 采用前轮壳体 230。前轮壳体 230 使得每个前轮 110 都能够绕单独的（例如水平的）旋转轴线 236a、236b 独立地旋转，并且使得每个前轮 110 都能够绕竖直轴线 238a、238b 回转或枢转。

[0092] 为了将后轮 114 和中间轮 118 安装或附接至相应的侧面框架组件 1802a、1802b，所示示例的每个侧面框架组件 1802a、1802b 都采用壳体、毂或托架 1940（例如，摆动件）。所示示例的每个托架 1640 都包括 ，毂，腿或端口 1642a，以接收安装有后轮 114 的后轮壳体 244 ；以及毂，腿或端口 1642b，以接收联接至中间轮 118 的臂或部分 254。

[0093] 由于左和右托架 1640 是基本上相同的，因此下面的描述将集中于一个托架 1640，来用作对于两个托架 1640 的描述。

[0094] 所示示例的后轮壳体 244 使得每个后轮 114 都能够绕单独的旋转轴线 250a、250b 独立地旋转，并且使得每个后轮 114 都能够绕基本上垂直于相应的旋转轴线 250a、250b 的基本上竖直的轴线 252a、252b 回转或枢转。托架或壳体 1940 相对于中间框架支撑件 208 绕由轮轴 130 提供的枢转轴线 132 而枢转地联接相应的一对中间轮 118 和后轮 114。

[0095] 为了当操纵婴儿车 1600 越过路缘或其它障碍物时改进稳定性和 / 或便于平衡，所示示例的示例婴儿车 1600 采用悬架装置 1928。当婴儿车 1600 的前端 110 相对于框架 1602 的后端 112 绕枢转轮轴 130 枢转或倾斜（例如相对于支撑表面（例如，地面）的向上方向）时，所示示例的悬架装置 1928 提供稳定性和 / 或便于平衡。当婴儿车 1600 被沿着一路径推动和 / 或绕枢转轴线 132 倾斜或枢转时，所示示例的悬架装置 1928 帮助防止中间轮 118 和 / 或后轮 114 分离和 / 或抬离行进表面（例如，地面）。例如，为了相对于婴儿车 1600 的后端 112 枢转或提升前轮 110，向手柄 1622 施加向下力。该向下力 1902 具有基本上垂直于施加至手柄 1622 的转动力 1802 的分量，以绕其中一个中间轮 118 转动或枢转婴儿车 1600。结果，当婴儿车 1600 的前端 110 围绕枢转轴线 132 被提升时，悬架装置 1928 帮助保持中间轮 118 和后轮 114 与行进路径接合。

[0096] 在示出的示例中，悬架装置 1928 定位成邻近于且平行于中间框架支撑件 208。在示出的实例中，悬架装置 1928 包括附接或联接至上框架支撑件 206 的第一端 1904 以及附接或联接至托架 1940 的第二端 1906。在所示的示例中，通过紧固件 1908（例如，销等）将第一端 1904 联接（例如，固定或枢转地联接）至上框架支撑件 206 并且将第二端 1906 联接（例如，固定或枢转地联接）至托架 1940。上框架支撑件 206、托架 1940、悬架装置 1928 和中间框架支撑件 208 限定了四杆式联动装置 1910。当折叠婴儿车 1600 时，该联动装置 1910 帮助辅助托架 1940 的旋转，如在下文更详细讨论的。在所示的示例中，联动装置 1910 限定了平行四边形。然而，在其它示例中，联动装置 1910 可以具有任何其它合适的形状和 / 或构造。

[0097] 图 21 是图 14 至图 20 的示例婴儿车 1600 的侧视图，其中具有示例悬架装置 1928 的局部剖切视图。所示示例的示例悬架装置 1928 是压缩弹簧 2102。为了在婴儿车 1600 的前端 112 绕枢转轴线 132 或枢轴 404 相对于婴儿车 1600 的后端 116 倾斜或提升时使得压缩弹簧 2102 能够压缩，压缩弹簧 2102 包括以可滑动的方式联接至第二部分 2106 的第一部分 2104。更具体地，第一部分 2104 被固定或联接（例如，枢转地联接）至上框架支撑件 206 并且第二部分 2106 被固定或联接（例如，枢转地联接）至托架 1940。第一部分 2104 包括销或滑块 2108，该销或滑块沿着形成在第二部分 2106 中的槽 2110 滑动或移动。因此，当婴儿车 1600 的前端 112 绕由轮轴 130 提供的枢转轴线 132 被提升时，压缩弹簧 2102 的第一部分 2104 相对于第二部分 2106 在槽 2110 中滑动，以压缩 / 解压位于弹簧筒 2112 中的弹簧。

[0098] 图 22A 至图 22D 示出了示例婴儿车 1600 的示例制动机构 2200。所示示例的制动机构 2200 由中间轮的共用轮轴 120 支撑，并且示例制动机构 2200 的制动杆或脚踏板 2202 由轮轴 130 支撑。如图 22B 和图 22C 中分别所示的，所示示例的制动杆 2202 能够绕轮轴的枢转轴线 132 在用于限制或防止中间轮 118 旋转的锁定位置 2204 与用于使得或便于中间



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轮 118 旋转的解锁位置 2206 之间选择性地移动或旋转。所示示例的制动杆 2202 包括视觉指示器 2208（例如，色彩指示器），以表示制动杆 2202 处于锁定位置 2204 和解锁位置 2206。

[0099] 还参考图 22D，所示示例的制动杆 2202 被致动或相对于轮轴 130 旋转，以起动柱塞 2210a、2210b，所述柱塞能够相对于中间轮 118 的锁定接口 2212a、2212b（例如，毂上的多个突起）移动。为了相对于中间轮 118 的相应的锁定接口 2212a、2212b 移动柱塞 2210a、2210b，所示示例的制动机构 2200 采用致动器 2214。所示示例的致动器 2214 是齿条和小齿轮组件，其中在齿轮 2220 之间定位有两个齿条 2216、2218。所示示例的齿条 2216 致动柱塞 2210b，并且所示示例的齿条 2218 致动柱塞 2210b。为了致动齿条 2216、2218，所示示例的制动机构 2200 采用线缆 2222。更具体地，线缆 2222 的第一端被附接至齿条 2216 并且线缆 2222 的第二端被附接至制动杆 2202。所示示例的线缆 2222 通过托架 1640 的臂 254 被布线至制动杆 1922。图 22D 示出了处于锁定状态的制动机构 2200。为了解锁中间轮 118，而将所示示例的制动杆 2202 旋转至解锁位置 2206（图 22）。结果，线缆 2222 朝向齿条 2218 移动（例如，拉动）齿条 2216，并且使得柱塞 2210b 与接口 2212b 分离。同时，随着齿条 2216 朝向齿条 2218 移动，齿条 2218 通过齿轮 2220 而朝向齿条 2216 移动，因而使得柱塞 2210a 与接口 2212a 分离。所示示例的致动器 2214 采用偏压元件 2224 来偏压或帮助移动齿条 2216、2218。所示示例的致动器 2214 包括由轮轴 120 联接或支撑的壳体 2226。

[0100] 图 23 和图 24 示出了图 14 至图 18 的示例婴儿车 1400 从图 14 至图 21 和图 22A 至图 22D 所示的使用中的展开位置被折叠至图 24 所示的塌缩、折叠或存放位置 2400。如上面注意到的，侧面框架组件 1802a、1802b 被构造得使得所示示例的整个婴儿车 1600 都能够在延伸、展开、使用中的位置（图 14 至图 18 和 22A 至图 22D）与塌缩、折叠或存放的位置 2400（图 24）之间选择性地移动。

[0101] 图 25A 和图 25B 示出了图 18 的锁闩释放机构 1816。参考图 23 至图 24 和图 25A 至图 25B，为了塌缩所示示例的婴儿车 1600，枢转连接件 210a、210b 的闩锁或锁定通过锁闩释放机构 1816 被释放。在解锁位置中，所示示例的枢转连接件 110a、110b 使得框架支撑件 204、206 和 / 或 208 能够相对于彼此绕由枢转连接件 210a、210b 提供的枢轴 704 旋转或枢转，所示示例的锁闩释放机构 1816 被起动。为了解锁枢转连接件 210a、210b，在婴儿座椅 106 已经被从座椅安装件 108 移除之后，所示示例的手柄 1818 首先远离框架 1602 被提升（例如，向上）。在手柄 1818 被提升之后，示例锁闩释放机构 1816 的触发器 2502 由使用者致动（例如，按压），以使得框架 1602 能够塌缩。当被起动时，所示示例的锁闩释放机构 1816 通过任何合适装置（例如，开关、锁定释放装置、拉绳等）移出与枢转连接件 210a、210b 的锁定接口的接合，以使得框架支撑件 204、206 和 208 能够相对彼此绕枢轴 704 枢转。所示示例的触发器 2502 经由位于锁闩释放机构 1816 的壳体或管 1820 中的线缆或条带而被联接至柱塞。示例锁闩机构 1818 使得能够单手操作来塌缩婴儿车 1600。

[0102] 在图 23 的所示示例中，所示示例的下框架支撑件 204 和上框架支撑件 206 沿由各箭头 2304 和 2306 所示的方向朝向中间框架支撑件 208 枢转。附加地，当向折叠位置 2400 折叠婴儿车 1600 时，所示示例的托架 1940 还沿由箭头 2308 表示的方向朝向中间车间支撑件 208 旋转。

[0103] 具体地，随着上框架支撑件 206 朝向中间框架支撑件 208 枢转，悬架装置 1928 通过沿箭头 2310 的方向朝向后轮 114 移动而作为杠杆，以使得托架 1940 沿箭头 2312 的方向



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绕枢转轴线 132 枢转。结果，随着上框架支撑件 206 朝向中间框架支撑件 208 枢转，悬架装置 1928 使得中间轮 118 同时朝向中间框架支撑件 208（经由托架 1940）枢转。

[0104] 如图 24 所示，在完全塌缩、折叠或存放位置 2400 中，所示示例的婴儿车 1600 具有相对低的轮廓和包络尺寸。如图 24 所示，悬架装置 1928 不干涉将婴儿车 1600 塌缩至折叠位置 2400。虽然示出了可塌缩框架 1602，但一些示例婴儿车可以不进行塌缩。

[0105] 在一些示例中，悬架装置 1928 由联接至轮轴 130 的扭转弹簧来实施。此外，所示示例的压缩弹簧 2102 可以由辅助框架构件或杆代替，以帮助塌缩示例婴儿车 1600。

[0106] 图 26 至图 28 示出了依照在此公开的教导而构造的另一示例婴儿车 2600。基本上类似或等同于上面描述的示例婴儿车 100 或 1600 的部件、并且具有基本上类似或等同于那些部件的功能的示例婴儿车 2600 的那些部件在下文将不再详细地描述。相反地，感兴趣的读者将参考上文的相应描述。为了便于这一过程，对于相似的结构将使用相似的附图标记。

[0107] 所示示例的示例婴儿车 2600 采用由一个或多个前轮 110、一个或多个后轮 114 和一个或多个中间轮 118 支撑的框架 2602。前轮壳体 230 将前轮 110 联接至框架 2602。托架或承载件 240 相对于框架 2602 枢转地联接中间轮 118 和后轮 114。例如，托架 240 限定了枢轴 404，中间轮 118 和后轮 114 可以相对框架 2602 围绕该枢轴 404 枢转。

[0108] 所示示例的框架 2602 限定了横向间隔开的侧面组件，以限定座椅区域 104。每个侧面组件都包括下框架支撑件 204、上框架支撑件 206 和中间框架支撑件 208。中间框架支撑件 208 经由连接件 2604（例如，毂）联接至上框架支撑件 206。与上文描述的框架 102 和 1602 不同，上框架支撑件 206 经由枢转连接件 2606 被联接至下框架支撑件 204。更具体地，连接件 2606 沿着上框架支撑件 206 的长度定位，使得连接件 2604 与枢转连接件 2606 间隔开由一部分上框架支撑件 206 限定的距离 2608。所示示例的枢转连接件 2606 提供了枢转点 2610，以使得下框架支撑件 204 能够相对于上框架支撑件 206 枢转，并且所示示例的连接件 2604 提供了枢转点 2612，以使得当婴儿车 2600 被折叠时，上框架支撑件 206 能够相对于中间框架支撑件 208 枢转。因此，中间框架支撑件 208 定位成与由枢转连接件 2606 提供的枢转点 2610 相邻或与该枢转点 2610 间隔开。图 26 中所示的示例婴儿车 2600 没有采用悬架装置。然而，在其它示例中，示例婴儿车 2600 包括悬架装置（例如，在此公开的悬架装置 128 或 1928）。

[0109] 为了便于塌缩或折叠婴儿车 2600，所示示例的框架 2602 采用辅助框架构件或杆 2614。所示示例的辅助框架构件 2614 具有联接或附接连接件 2606 的第一端以及附接或联接至托架 240 的臂 254 的第二端。所示示例的辅助框架构件 2614 基本上平行于中间框架支撑件 208。所示示例的辅助框架构件 2614 通过枢转连接件 2606 被枢转地联接至下框架支撑件 204 和上框架支撑件 206。

[0110] 图 27 和图 28 示出了图 26 的示例婴儿车 2600 从图 26 所示的使用中的展开位置折叠至图 28 所示的塌缩、折叠或存放位置 2800。框架 2602 构造得使得所示示例的整个婴儿车 2600 能够在延伸、展开、使用中的位置（图 26）与塌缩、折叠或存放的位置 2800（图 28）之间选择性地移动。为了塌缩所示示例的婴儿车 2600，通过任何合适的装置（例如，开关、锁定释放装置、拉绳等）来起动锁闩释放装置，以解锁锁闩机构，并且使得框架支撑件 204、206 和 / 或 208 和辅助框架构件 2614 能够相对于彼此绕由枢转连接件 2606 提供的枢轴 2610 和由连接件 2604 提供的枢轴 2612 旋转或枢转。在示出的示例中，下框架支撑件 204



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沿箭头 2702 的方向朝向中间框架支撑件 208 枢转，并且上框架支撑件 206 沿箭头 2704 的方向朝向中间框架支撑件 208 枢转。

[0111] 更具体地，上框架支撑件 206 绕连接件 2604 枢转，使得上框架支撑件 206 的在连接件 2604 和 2606 之间延伸的部分 2608 作为杠杆。随着上框架支撑件 206 绕枢轴 2612 朝向中间框架支撑件 208 枢转，上框架支撑件 206 使得辅助框架构件 26148 沿箭头 2708 的方向（例如，向上方向）移动。继而，辅助框架构件 2614 使得或拉动使得托架 240 的臂 254 沿由箭头 2710 所示的方向朝向中间框架支撑件 208 枢转。结果，当将婴儿车 2600 折叠至折叠位置 2800 时，所示示例的托架 240 沿由箭头 2710 表示的方向朝向中间框架支撑件 208 绕枢轴 140a、404 旋转。框架 2602 的手柄 2722 可以沿箭头 2714 的方向绕枢轴 2712 朝向上框架支撑件 206 旋转。

[0112] 如图 28 所示，在完全塌缩、折叠或存放位置 2800 中，所示示例的婴儿车 2600 具有相对低的轮廓或包络尺寸。虽然示出了可塌缩框架 2602，但一些示例婴儿车可以不进行塌缩。

[0113] 图 29 是示例方法 2900 的流程图，该方法可被用于制造示例婴儿车，例如图 1 至图 8、图 9A、图 9B 和图 10 的示例婴儿车 100、图 11 的示例婴儿车 1100、图 12 至图 15 的示例婴儿车 1200、图 16 至图 21、图 22A 至图 22D、图 23、图 24、图 25A 和图 25B 的示例婴儿车 1600 以及图 26 至图 28 的示例婴儿车 2600。虽然示出了制造示例覆盖组件的示例方式，但在图 29 中示出的一个或多个块和 / 或过程可被组合、分割、再排列、省略、消除和 / 或以其他任何方式而实施。仍进一步的，图 29 的示例方法可以包括除了图 29 中所示的过程和 / 或块之外或作为图 29 中所示的过程和 / 或块代替物的一个或多个过程和 / 或块，和 / 或可以包括多于所示的过程和 / 或块中的任意一个或全部的过程和 / 或块。此外，虽然参考图 29 所示流程图描述了示例方法 2900，但可以另选地使用制造覆盖组件的很多其它方法。

[0114] 为了开始图 29 的示例组装过程，将前轮安装至框架的前部（块 2902）。例如，在此公开的所示示例的前轮 110 经由前轮壳体 230 被安装至下框架支撑件 204。

[0115] 将后轮和中间轮也安装至框架（块 2904）。更具体地，将中间轮定位在后轮和前轮之间，并且该中间轮和后轮 114 经由第一托架 240、1940 被安装至第一侧面框架组件 202a、1202a、1802a、2602a，并且第二组中间轮 118 和后轮 114 经由第二托架 240、1940 被安装至第二侧面框架组件 202b、1202b、1802b、2602b。

[0116] 在后轮和中间轮之间提供枢转轴，以使得后轮和中间轮能够绕枢转轴线枢转（块 2808）。例如，由在第一和第二侧面框架组件 202a、202b ;1202a、1202b ;1802a、1802b ;2602a、2602b 之间延伸的轮轴 130 来提供枢转轴线 132。具体地，托架 240、1640 安装至轮轴 130 的每一端，以将托架 240、1640 枢转地安装至婴儿车的框架。更具体地，中间轮 118 经由臂 254 被安装至托架 240、1640，并且后轮经由后轮壳体 244 被安装至托架 240、1640。在一些示例中，第一和第二侧面框架组件 202a、202b ;1202a、1202b ;1802a、1802b ;2602a、2602b 的中间轮 118 经由轮轴 120 被以可旋转的方式联接在一起。

[0117] 在一些示例中，示例婴儿车可构造有悬架，当婴儿车绕枢转轴线 132 旋转时该悬架提供增加的力，以相对于后端 116 提升婴儿车的前端 112。例如，在此公开的示例婴儿车可构造有悬架装置 128、1928。例如，悬架装置 128 被联接或附接至轮轴 130 或枢转轴线 132 以及中间框架支撑件 208。另选地，悬架 1928 被附接至上框架支撑件 206 和托架 240、1940，



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而邻近中间框架支撑件 208。

[0118] 虽然已经在此描述了一些示例方法、装置和制造环节，但该专利的覆盖范围并不限于此。相反地，该专利覆盖了直接落入本专利的权利要求的范围内的全部方法、装置和制造环节。

[0119] 相关申请的交叉引用

[0120] 本申请要求于 2013 年 1 月 7 日提交的名为“容易操纵的婴儿车 (Maneuverable Strollers)”的、序列号为 61/749,728 的美国临时专利申请的优先权，该专利申请的全部内容通过引用并入本文。

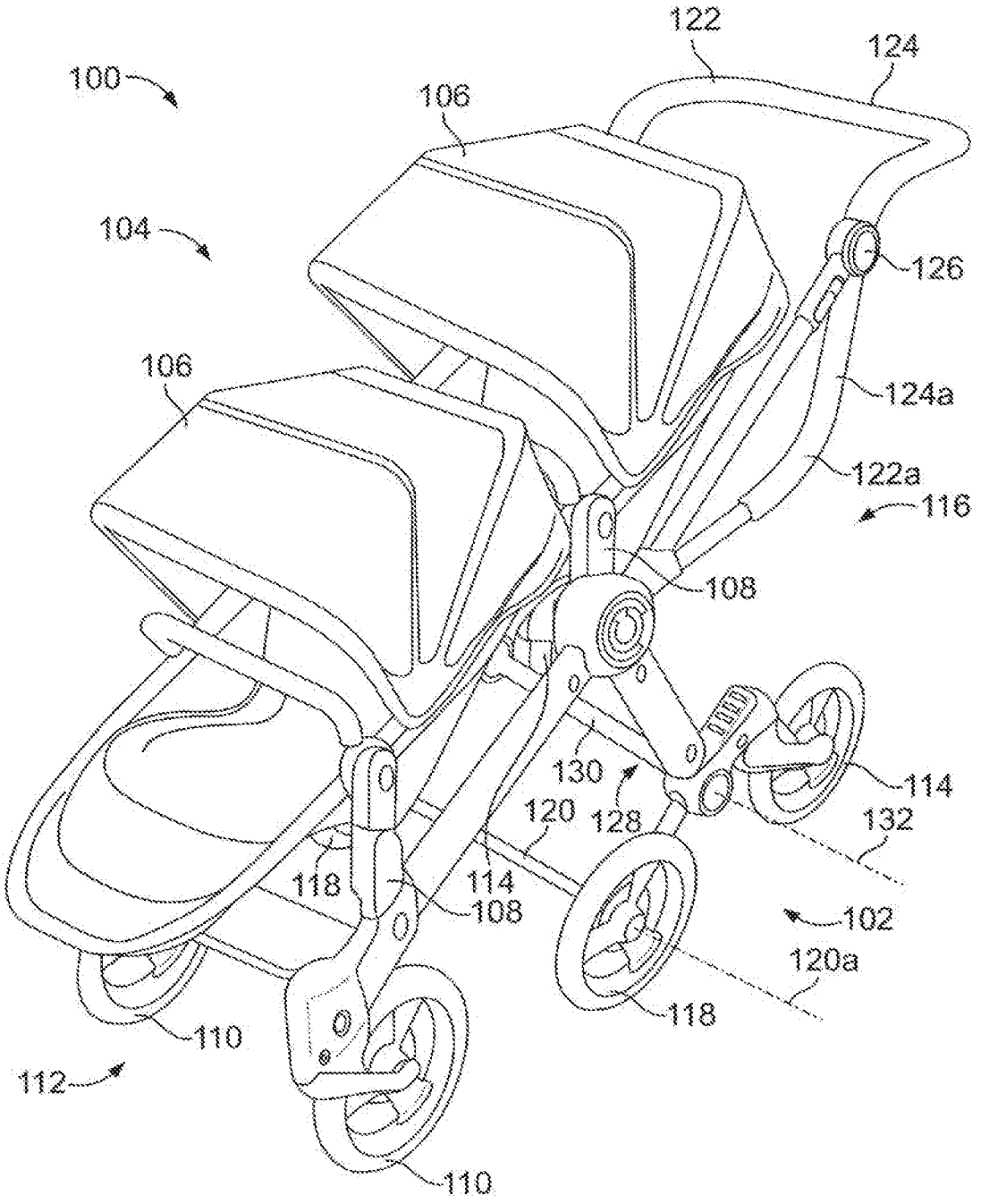

122
124
100
106
104
126
106
124a
122a
116
108
130
114
120
128
132
118
114
108
102
120a
118
110
112
110

图 1

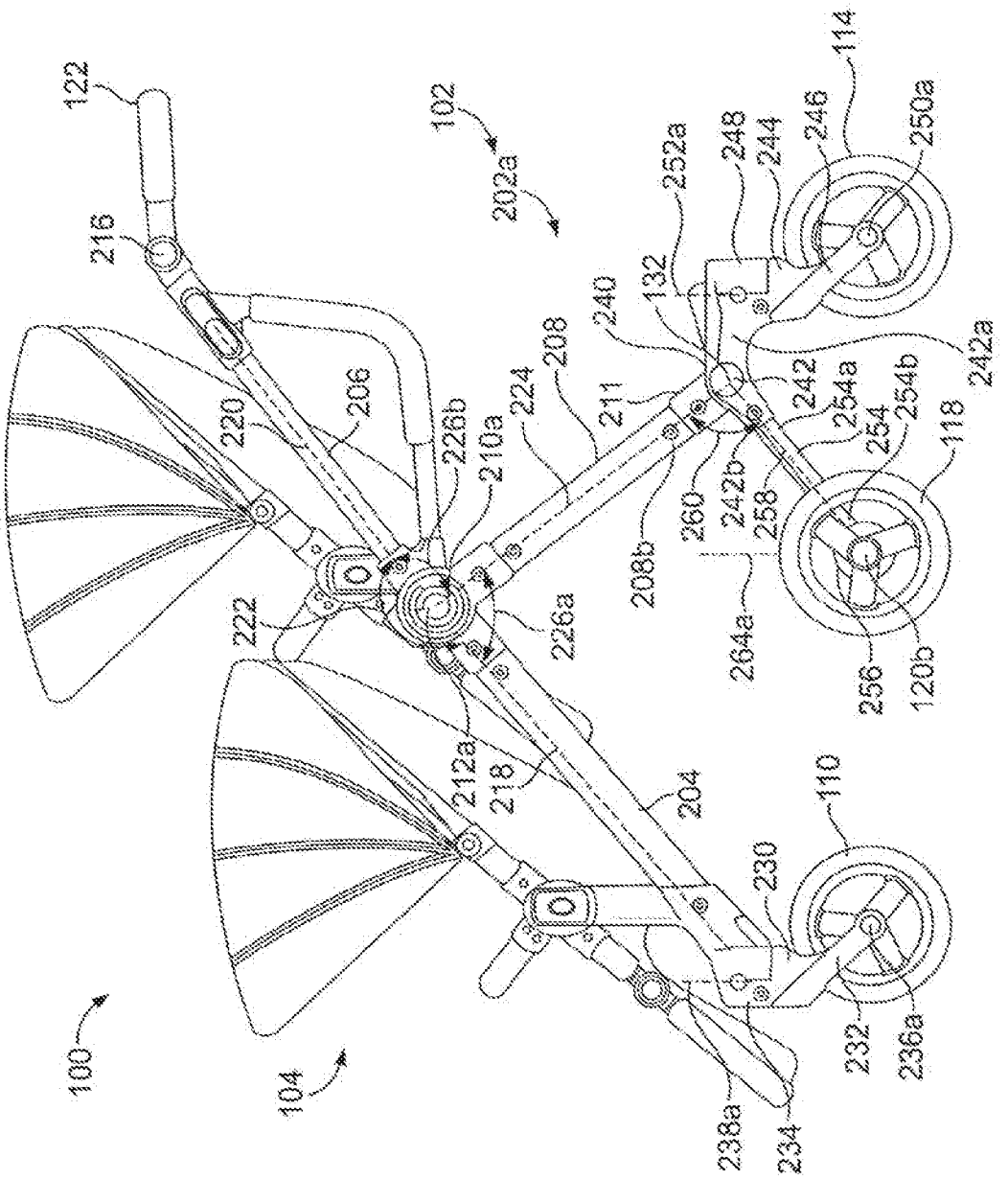

122
216
102
202a
114
246
250a
252a
248
244
240
132
242a
242
254a
254b
254
118
208
224
211
210a
226b
206
220
222
226a
208b
260
242b
258
264a
256
120b
212a
218
204
110
230
232
236a
238a
234
100
104

图 2

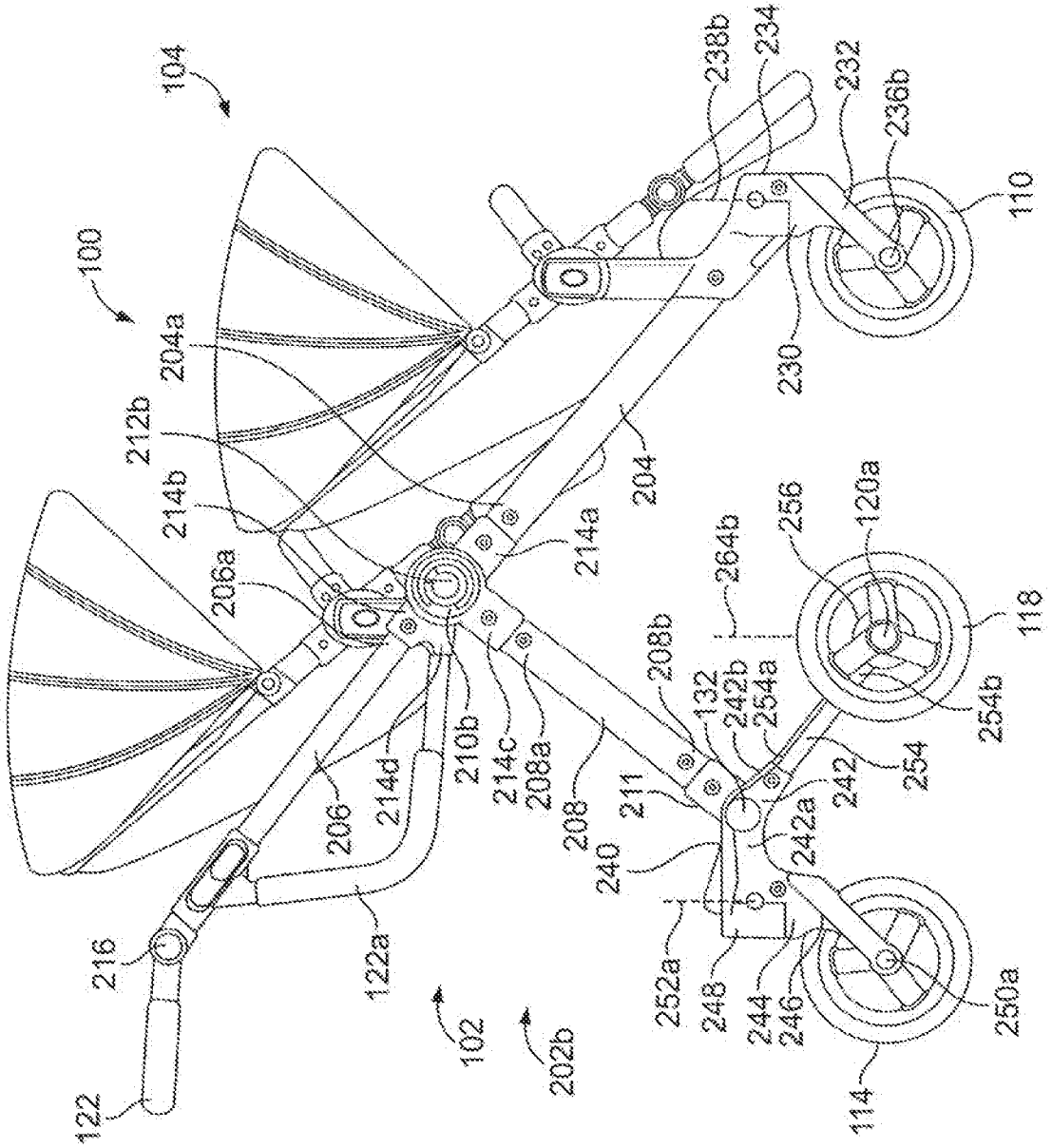

104
100
238b
234
232
236b
110
230
204a
212b
214b
206a
204
214a
256
120a
264b
118
208b
132
242b
254a
254b
254
242
211
208
214c
208a
210b
214d
206
240
242a
122a
216
252a
248
244
246
250a
102
202b
122
114

图 3

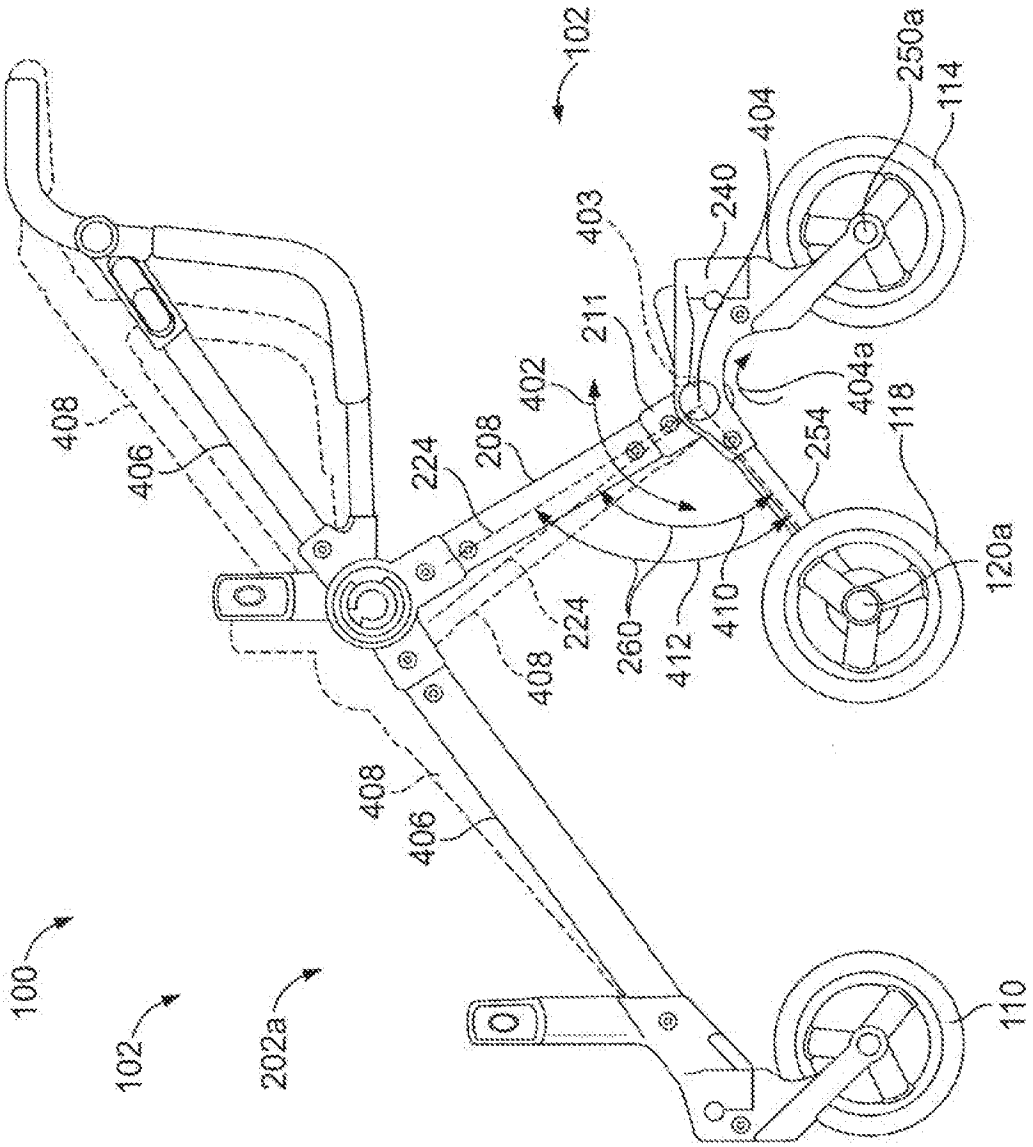

102
250a
114
404
240
403
211
402
404a
118
254
120a
224
208
408
406
260
412
410
100
202a
110

图 4

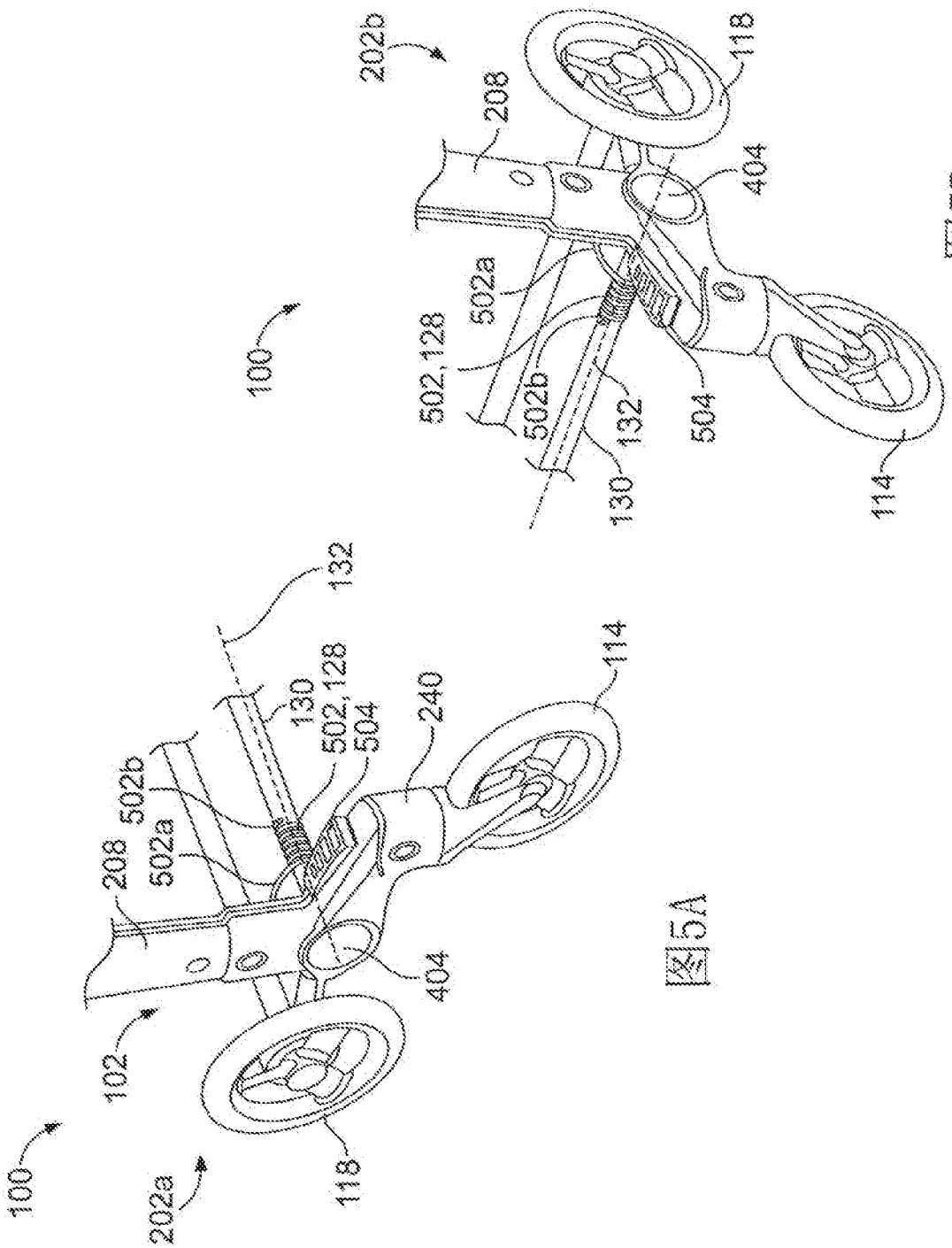

100
102
202a
118
208
502a
502b
502,128
504
130
132
240
114
404
202b
118
208
404
502a
502,128
502b
132
504
130
114

图5A

图5B

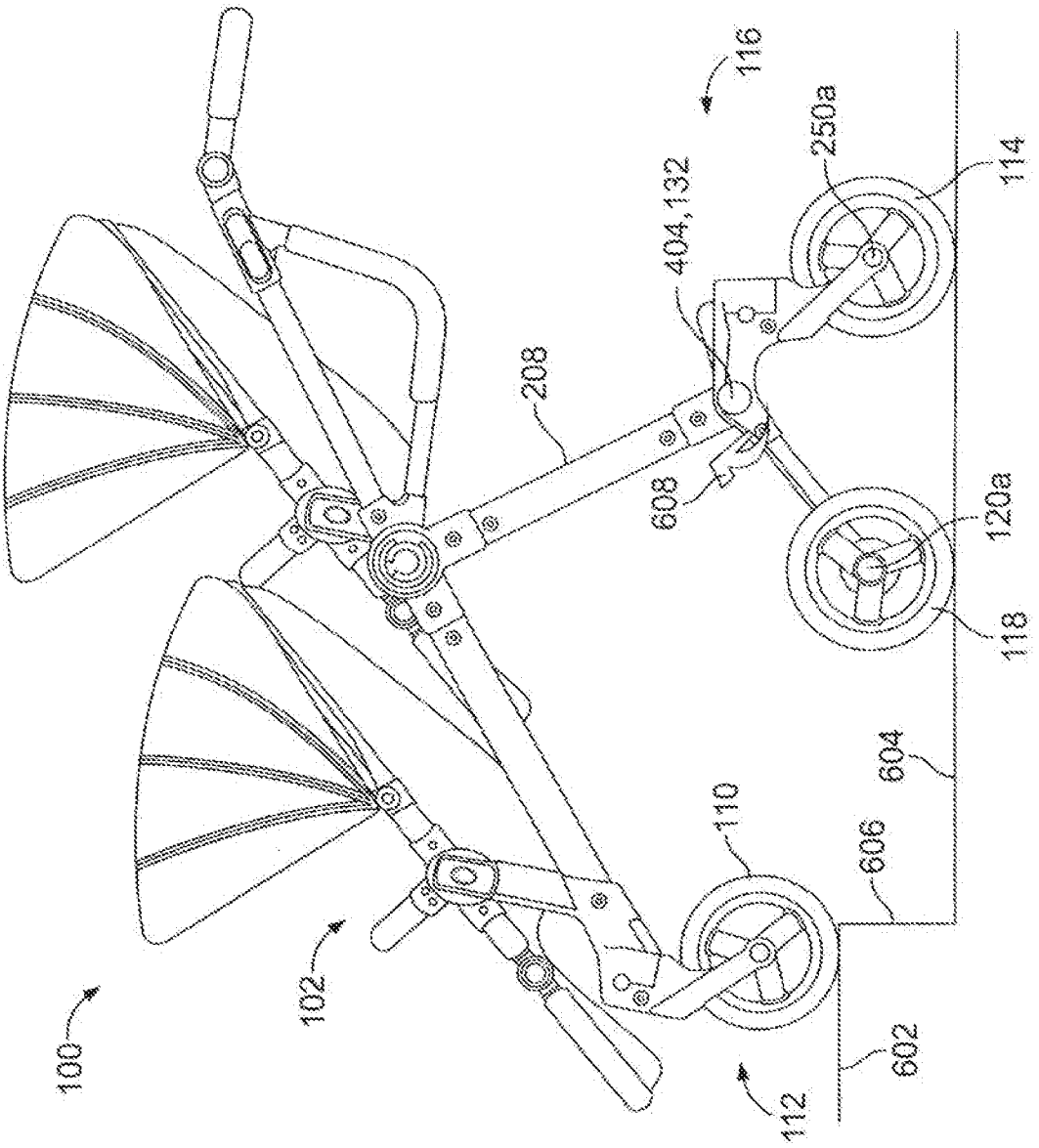

116
250a
114
404,132
208
608
120a
118
604
606
110
102
100
602
112

图 6

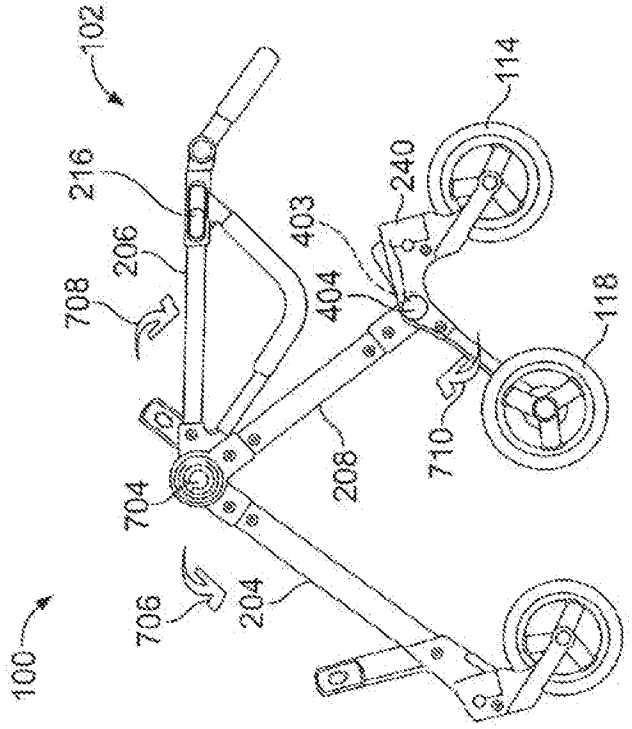

102
216
206
708
403
404
240
114
118
208
710
704
706
204
100

图7

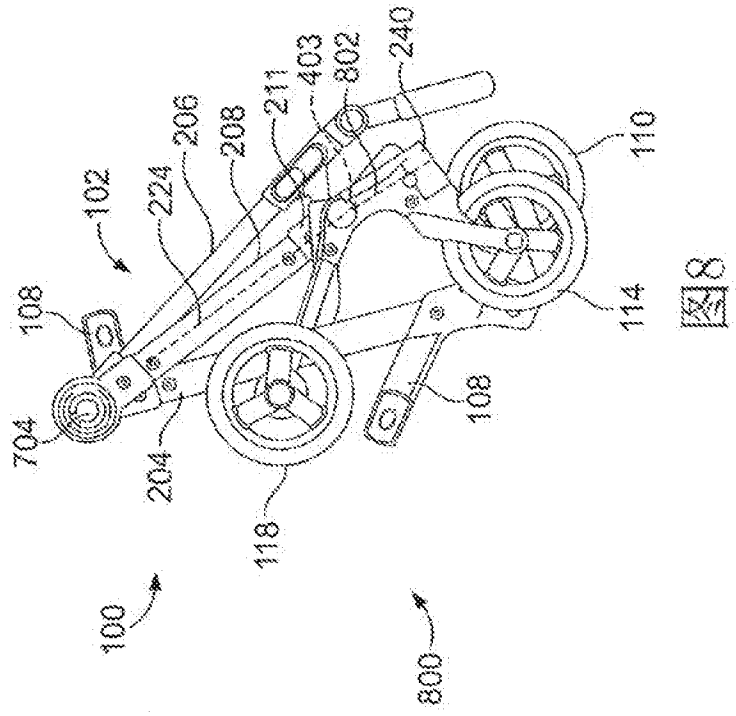

102
224
206
208
211
403
802
240
110
114
108
704
204
118
100
800

图8

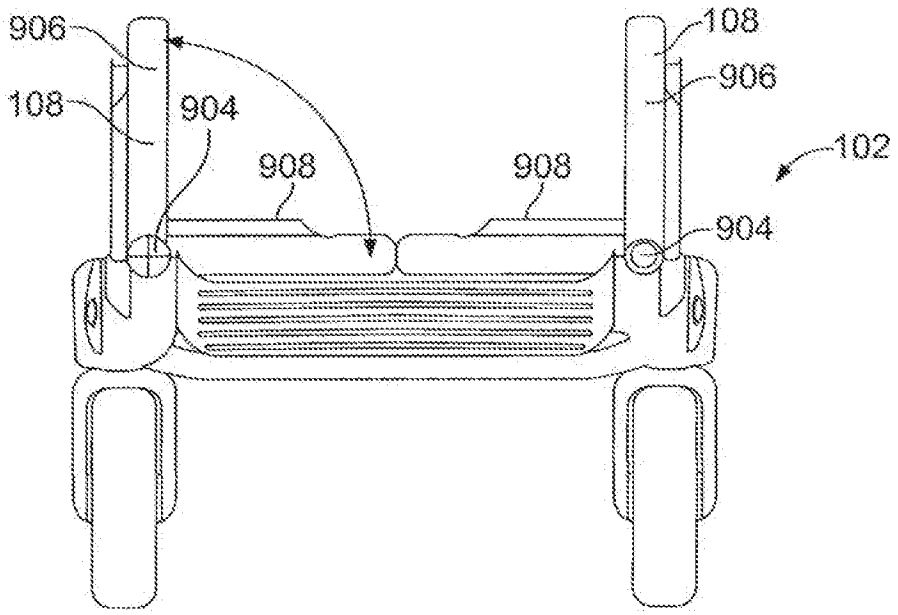



图 9A

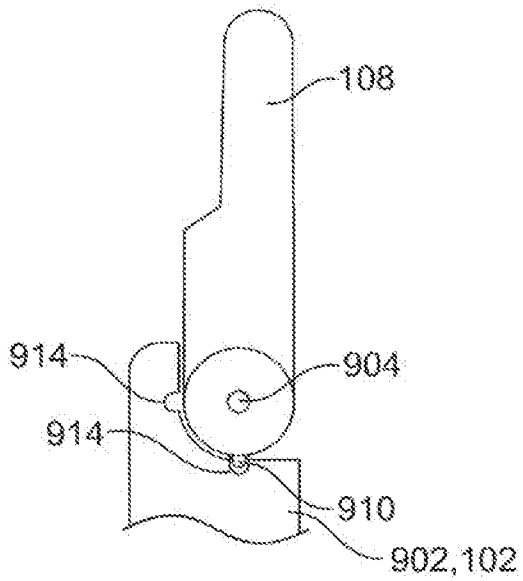



图 9B

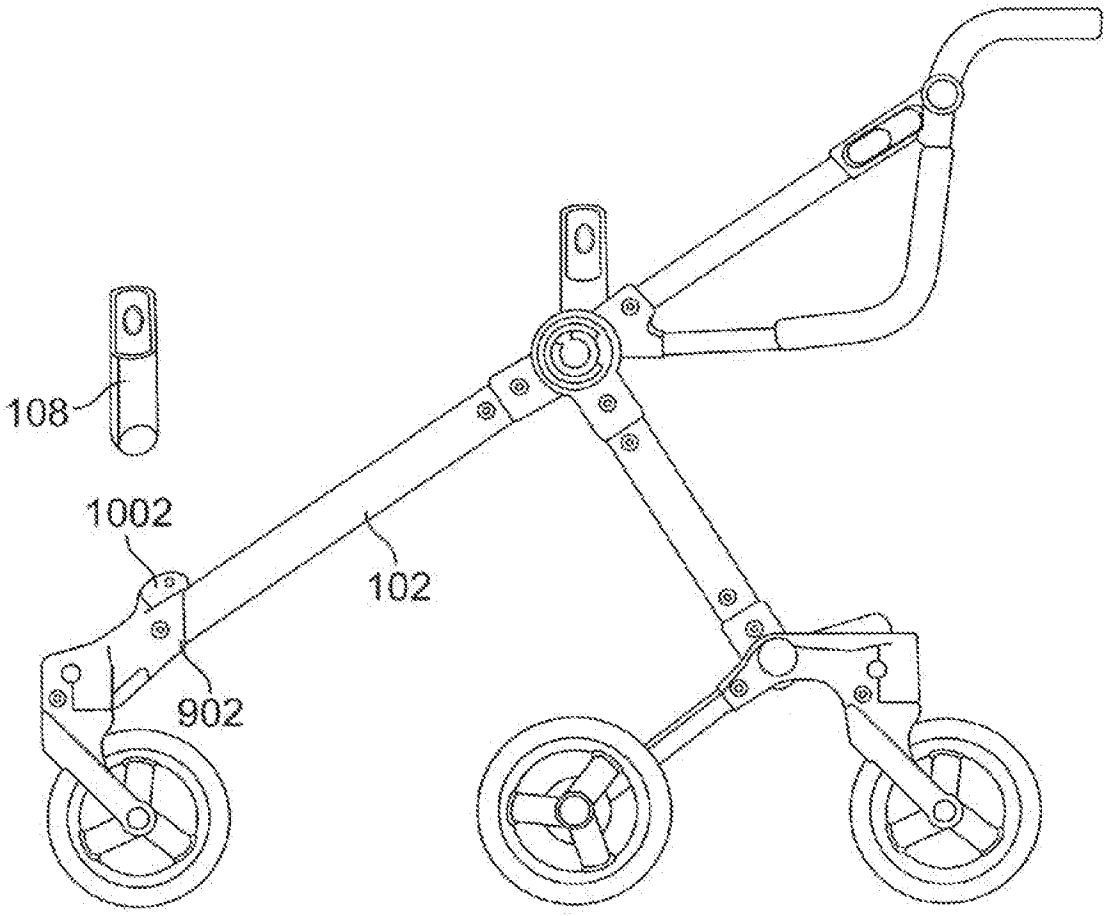



图 10

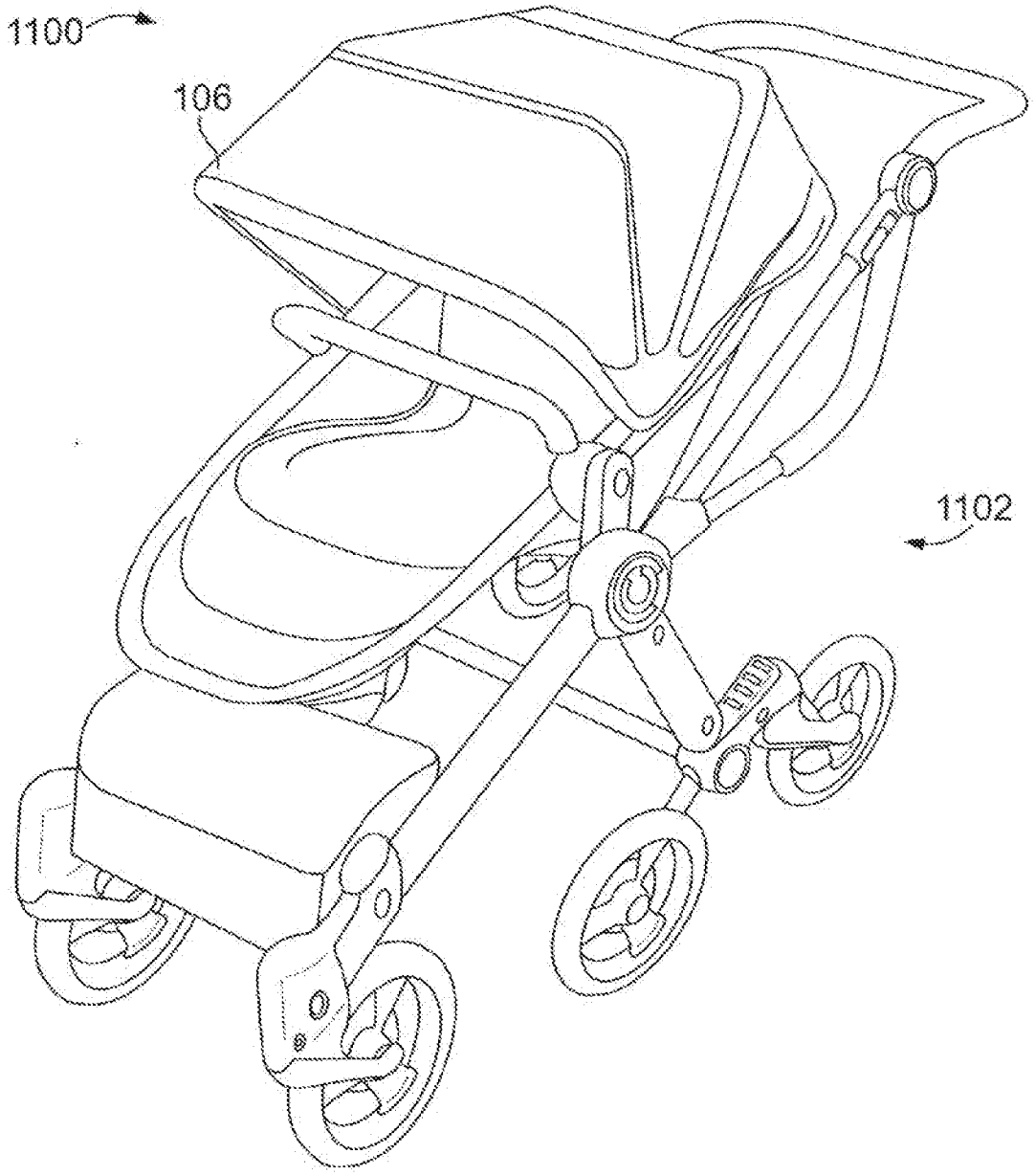



图 11

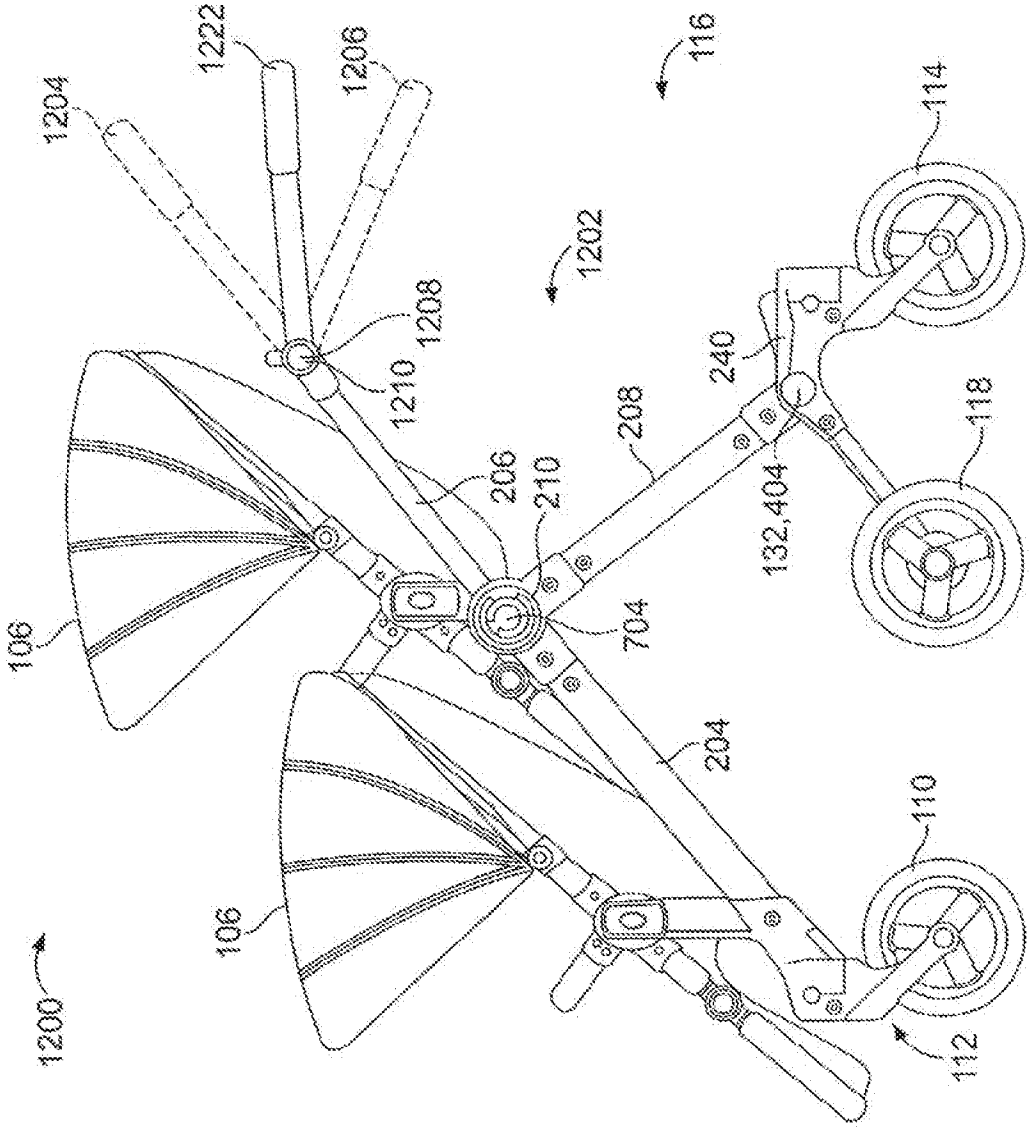

1222
1206
1204
116
114
1202
1208
1210
240
208
206
210
118
132,404
704
106
204
110
106
1200
112

图 12

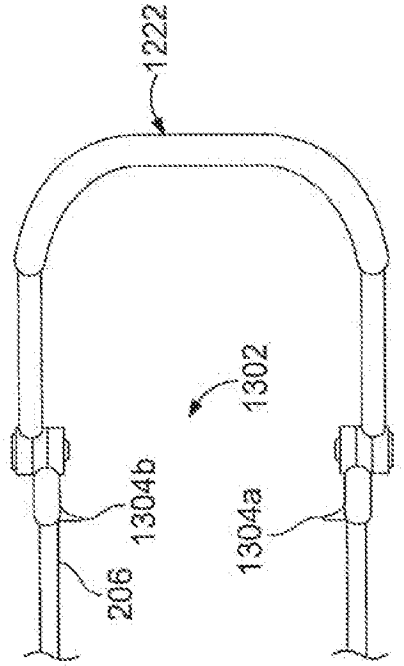

1222
1302
1304b
1304a
206

图 13

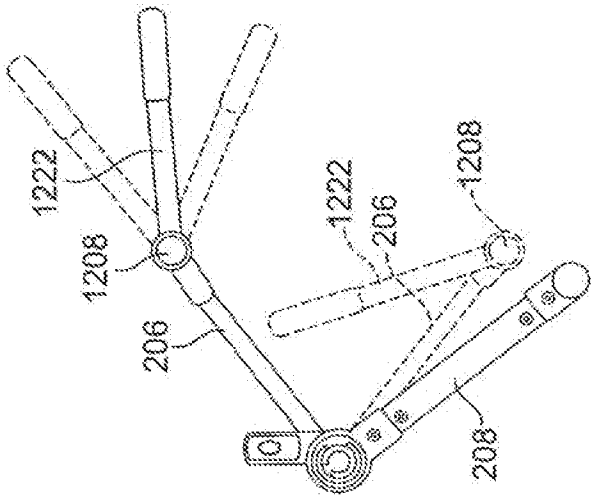

1222
1208
206
1222
206
1208
208

图 14

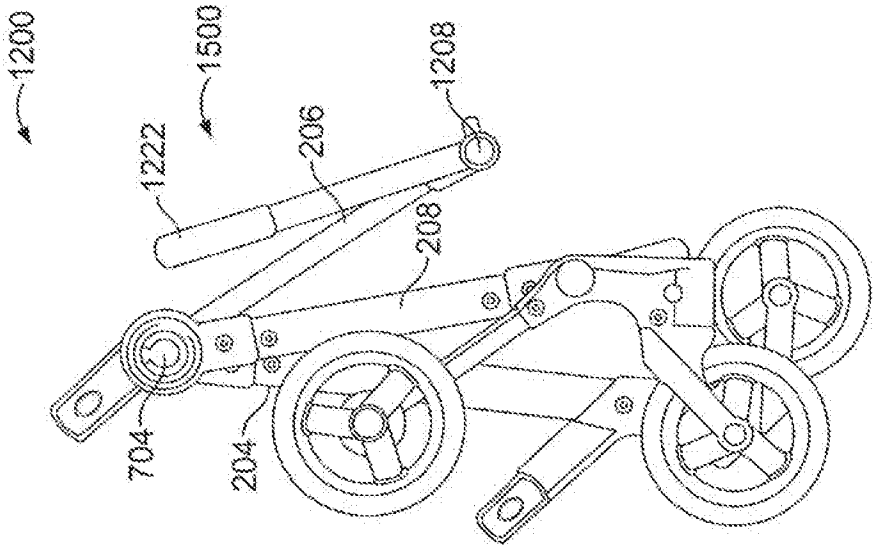

1200
1500
1208
1222
206
208
704
204

图 15

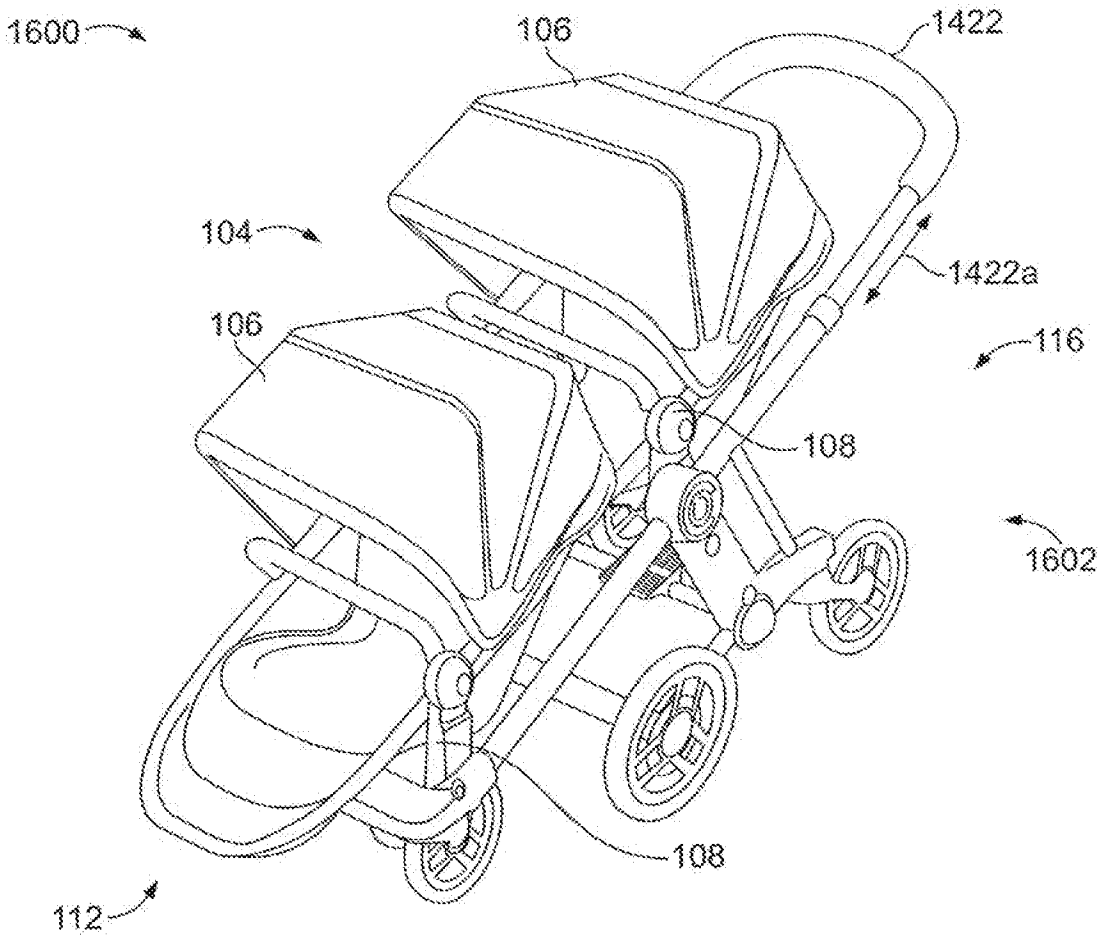



图 16

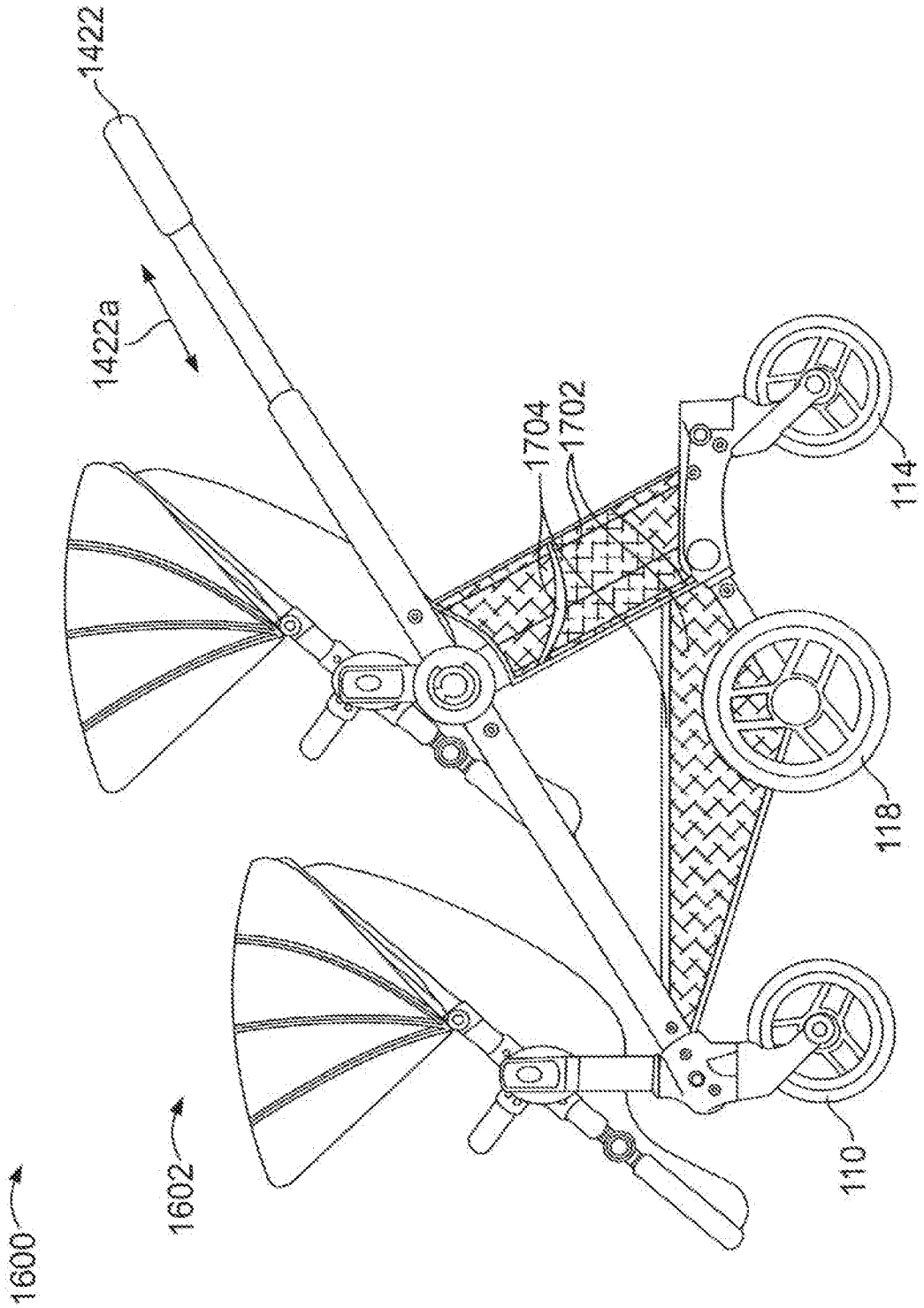



图 17

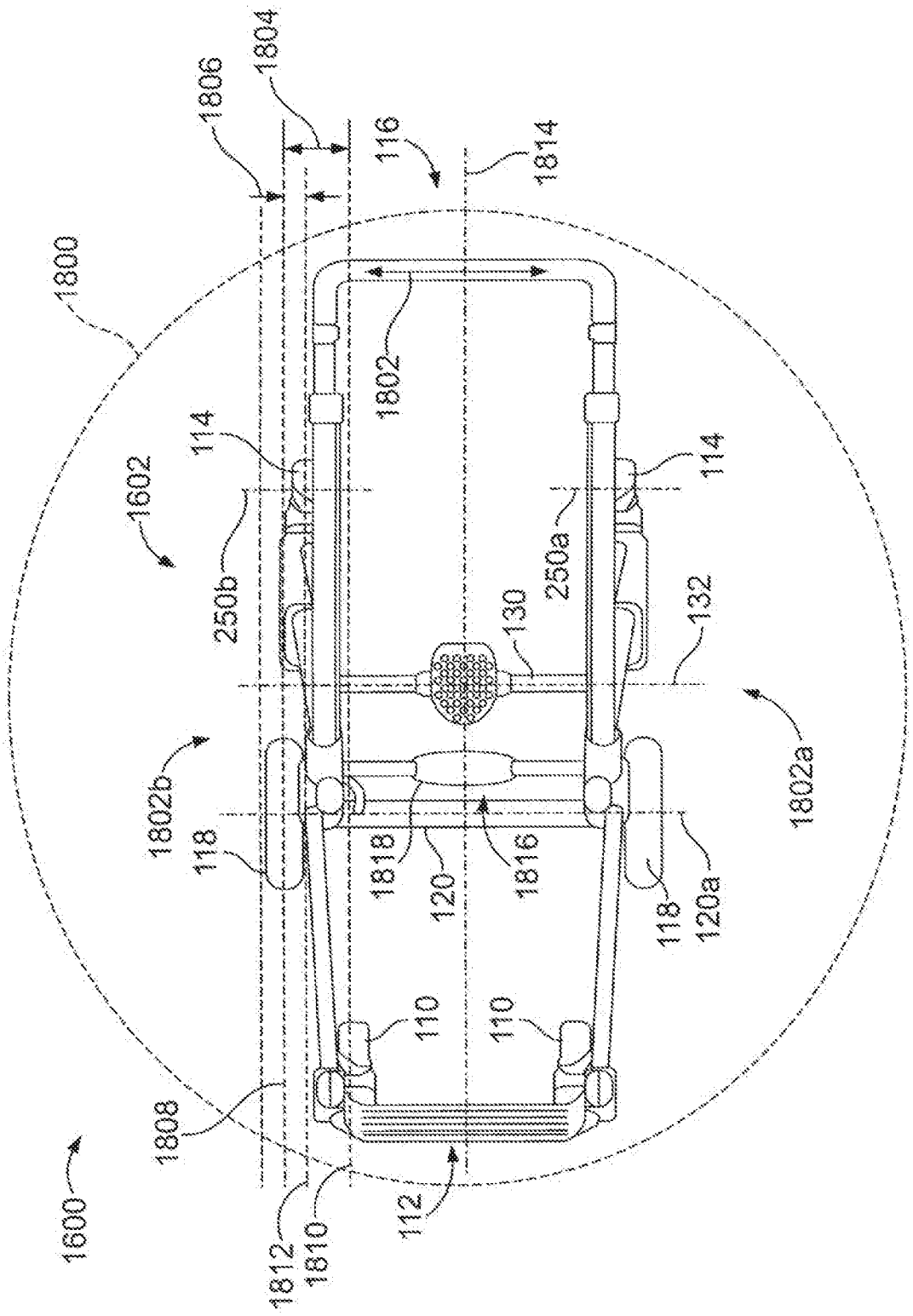

1804
1806
116
1814
1800
1802
114
1602
250b
250a
114
130
132
1802b
1802a
118
1818
120
1816
118
120a
110
110
1808
1600
112
1812
1810

图 18

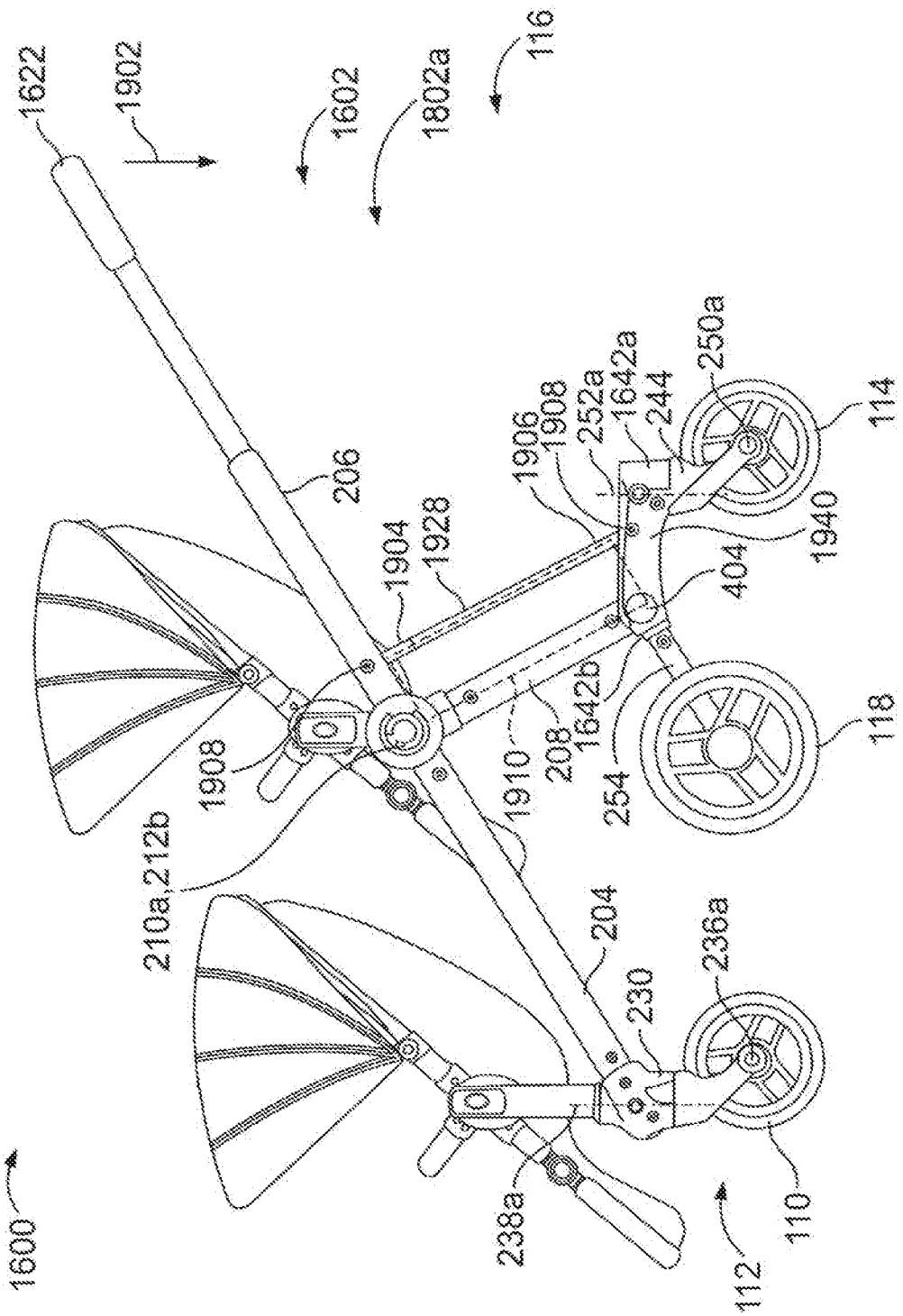

1622
1902
1602
1802a
116
206
1906
1908
252a
1642a
244
250a
114
1904
1928
1940
404
1908
1910
208
1642b
254
118
210a,212b
204
236a
230
238a
110
112
1600

图 19

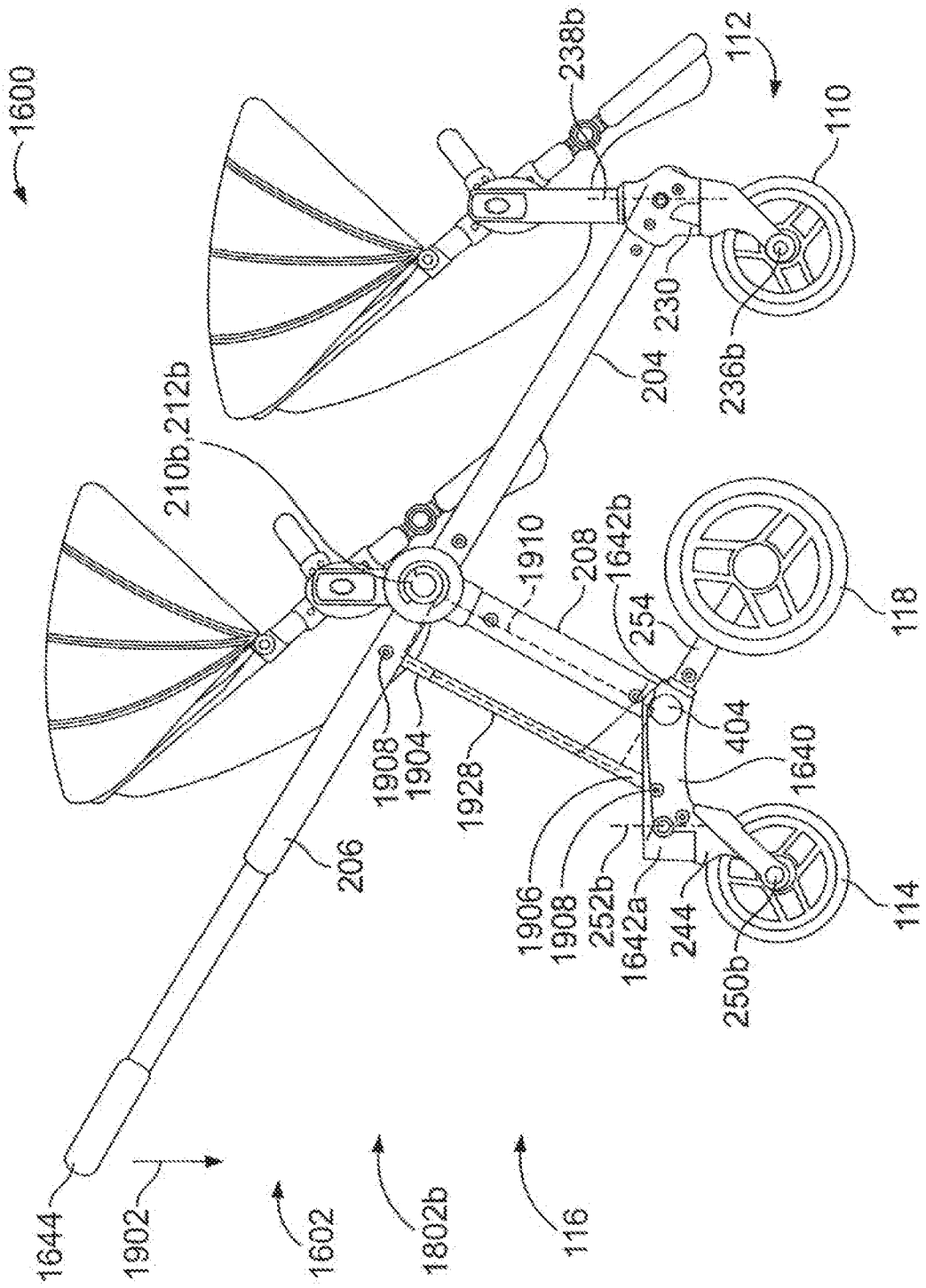

1600
238b
112
110
230
204
236b
210b,212b
1910
208
1642b
254
118
404
1640
1908
1904
1928
206
1906
1908
252b
1642a
244
250b
114
1644
1902
1602
1802b
116

图 20

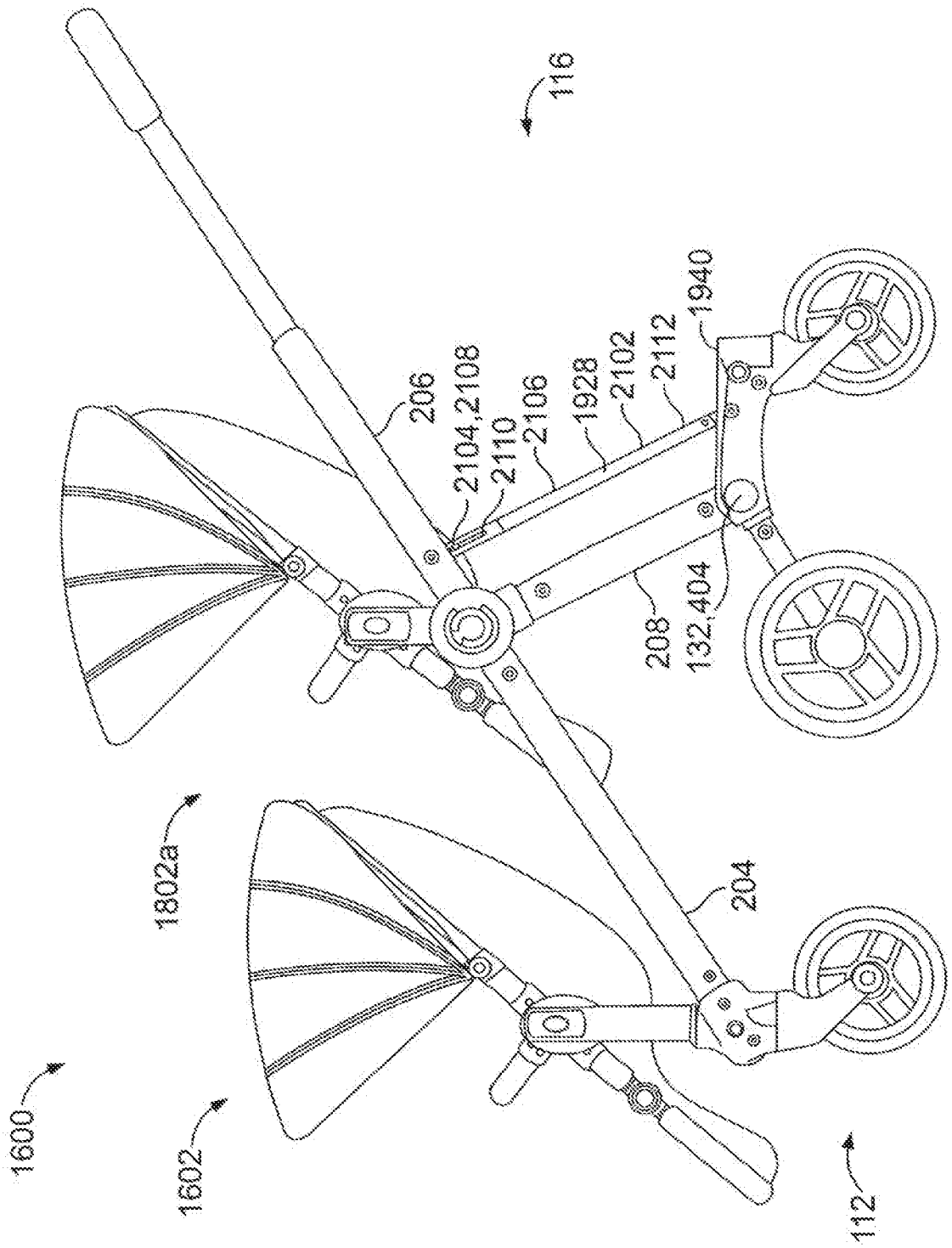

116
206
2104,2108
2110
2106
1928
2102
2112
1940
208
132,404
204
1802a
1600
1602
112

图 21

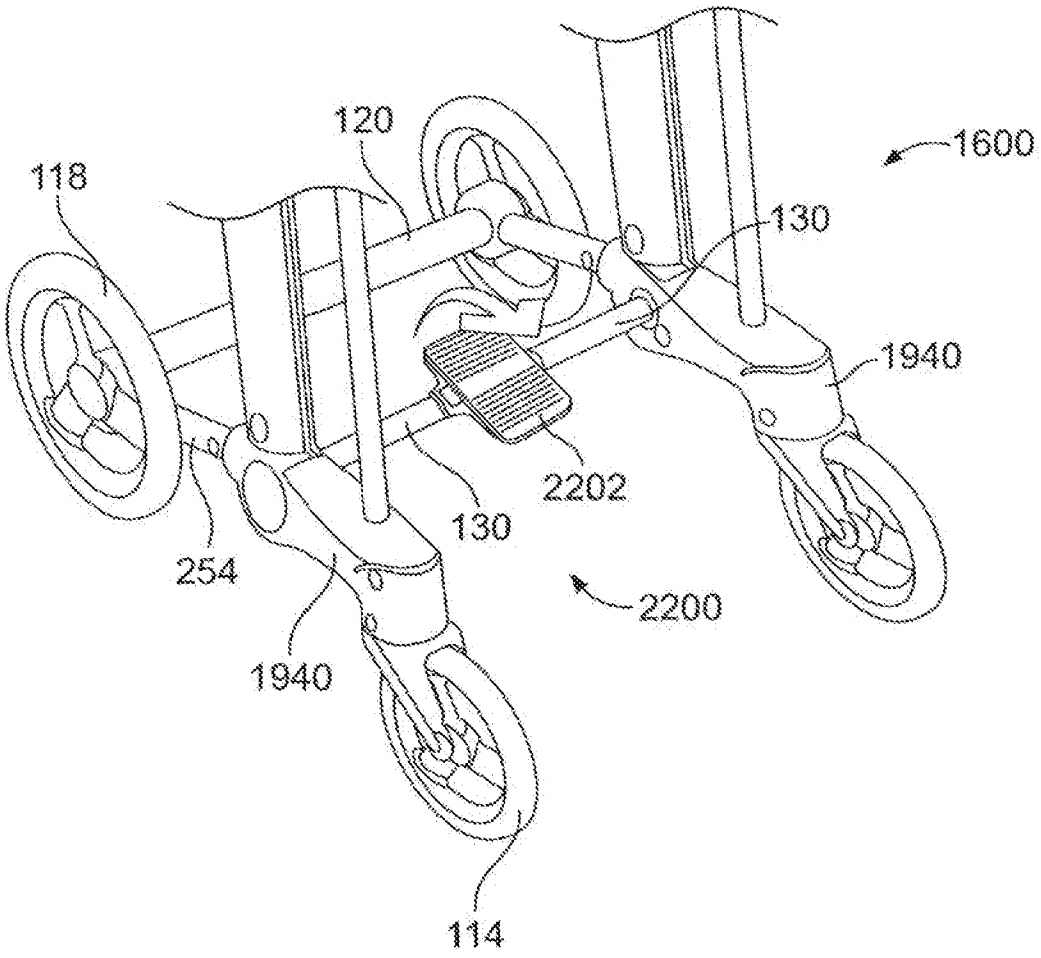



图 22A

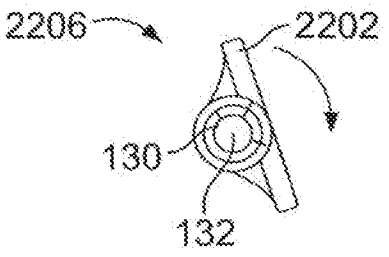



图 22B

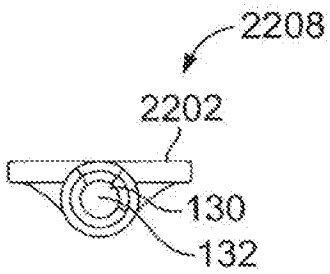



图 22C

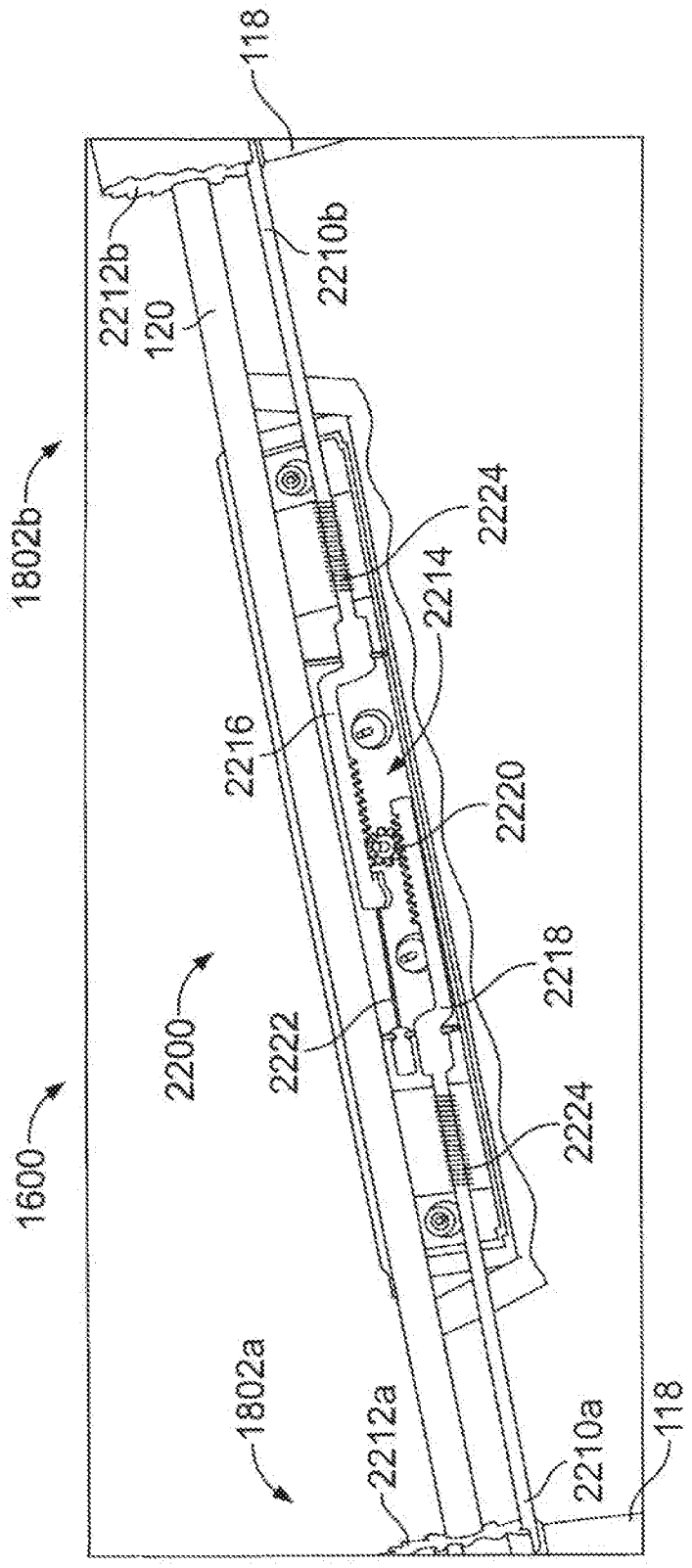

118
2212b
2210b
120
1802b
2224
2214
2216
2220
2218
2200
2222
2224
1600
1802a
2212a
2210a
118

图 22D

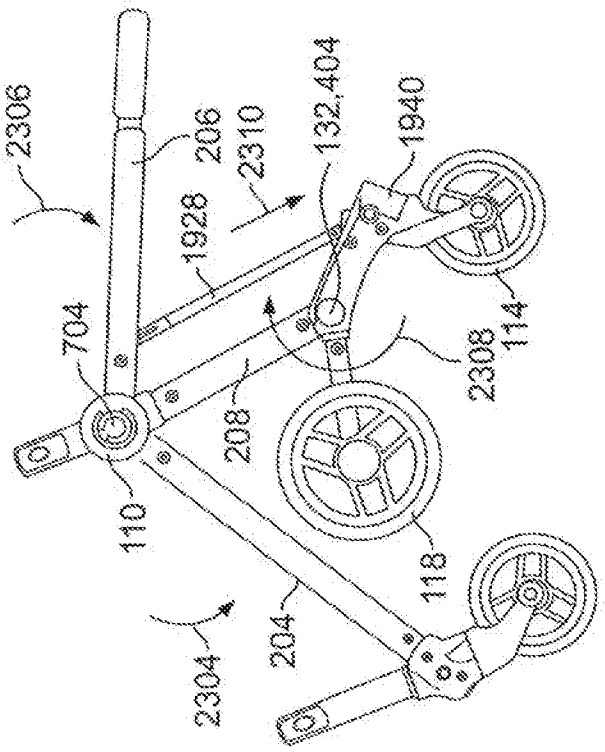

2306
206
2310
132,404
1940
1928
704
208
2308
114
110
118
204
2304

图 23

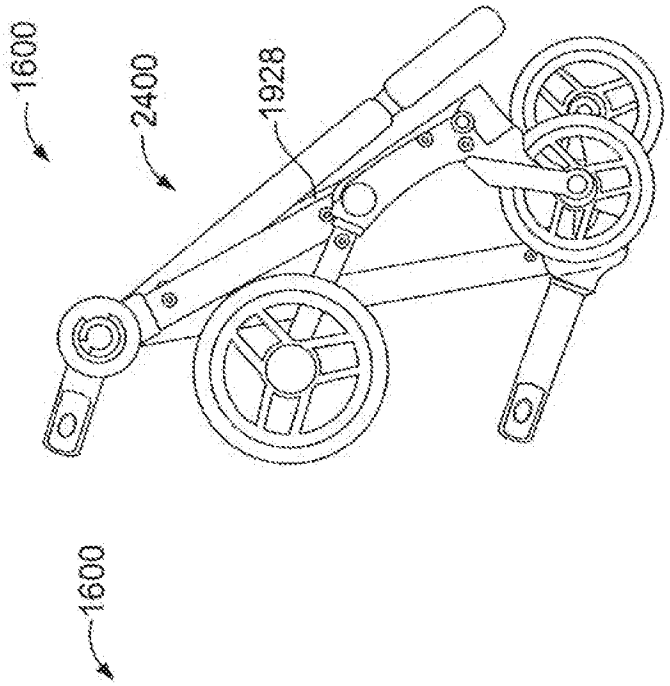

1600
2400
1928
1600

图 24

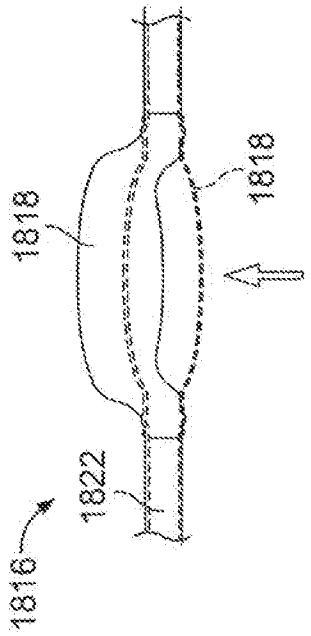

1818
1818
1822
1816

图 25A




图 25B

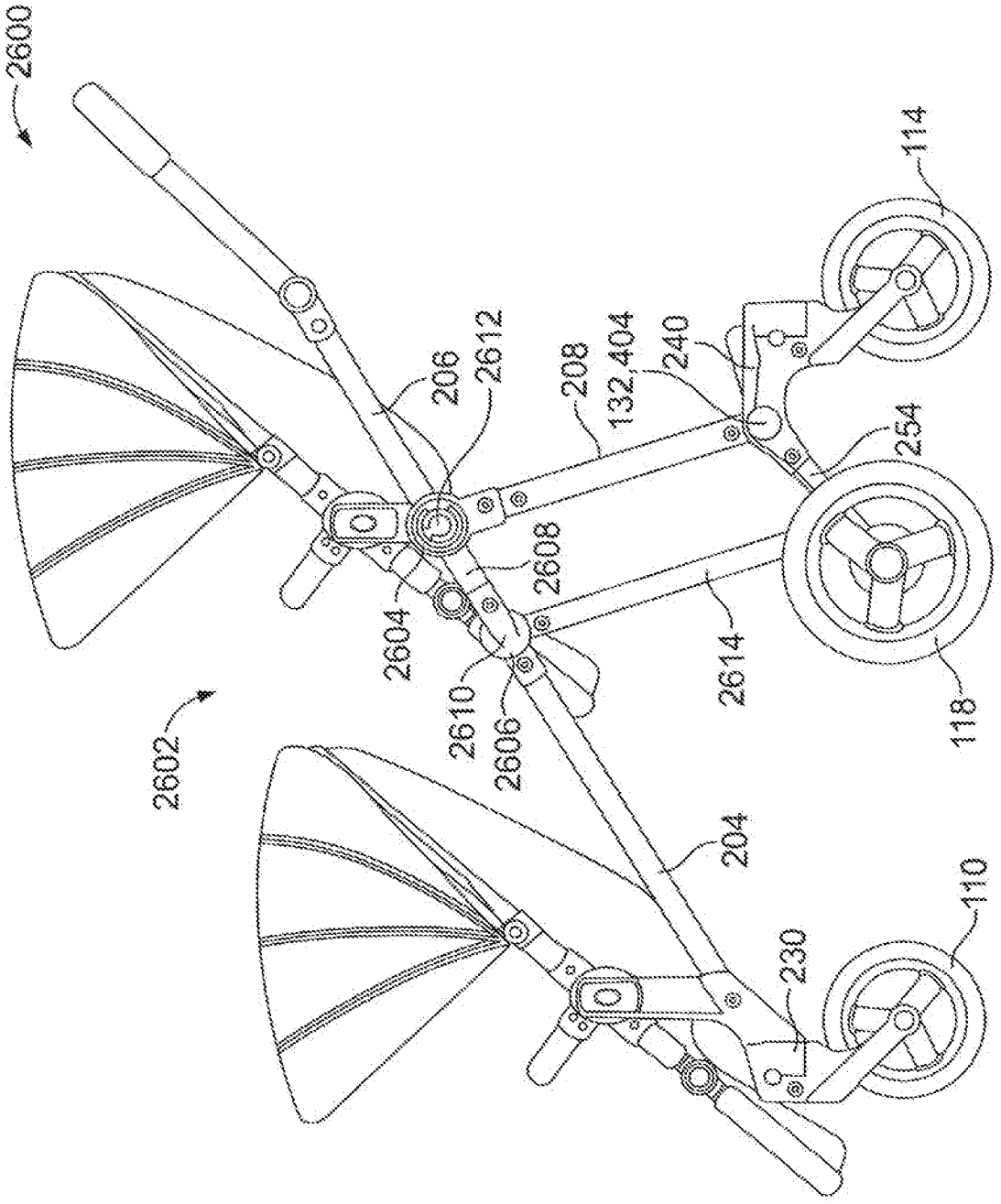

2600
114
206
2612
208
132,404
240
254
2608
2604
2610
2606
2614
118
2602
204
110
230

图 26

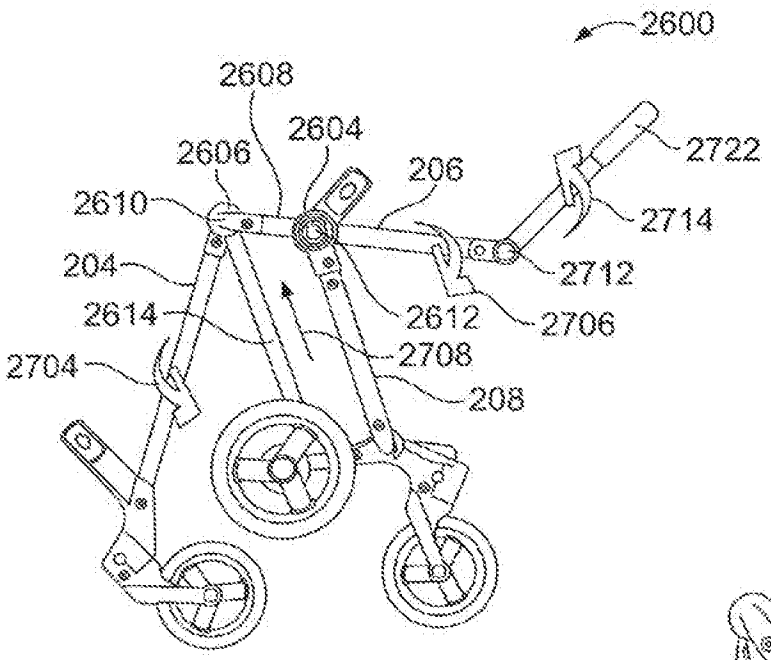

2600
2608
2604
2606
206
2722
2610
2714
204
2712
2614
2612
2706
2704
2708
208

图27

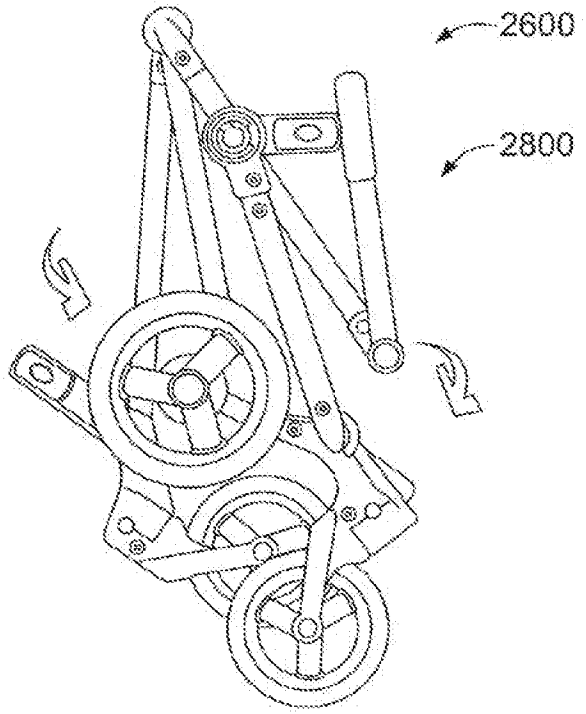

2600
2800

图28

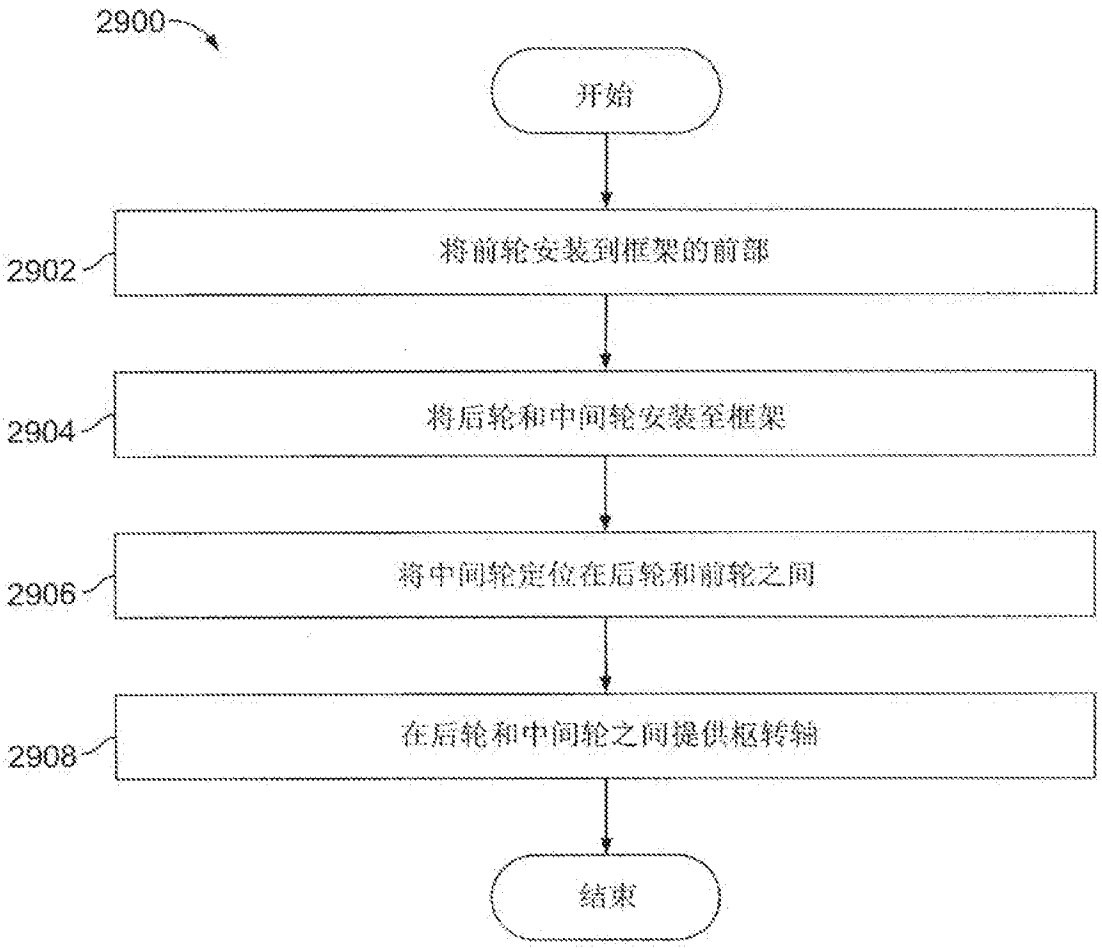

2900
开始
2902
将前轮安装到框架的前部
2904
将后轮和中间轮安装至框架
2906
将中间轮定位在后轮和前轮之间
2908
在后轮和中间轮之间提供枢转轴
结束

图 29

Espacenet

# Bibliographic data: CN103921830 (A) — 2014-07-16

## Seat attachment for a stroller


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**Applicant(s):** DYNAMIC BRANDS LLC ± (DYNAMIC BRANDS LLC)



**Classification:** - international:***B62B9/12***
- cooperative: **B62B7/006**; **B62B7/008**; **B62B7/14**; **B62B9/28**; B62B3/008; B62B7/145; B62K13/00

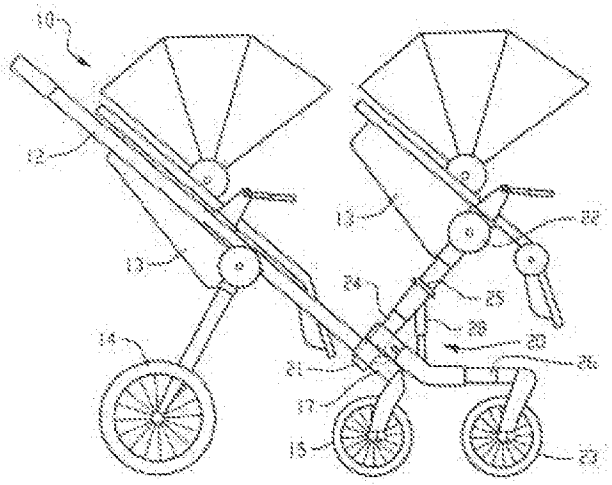
**Application number:** CN20141187239 20091204

**Priority number (s):** US20080119920P 20081204 ; CN20098148829 20091204

**Also published as:** CN103921830 (B) AU2009322149 (A1) AU2009322149 (B2) CA2745914 (A1) CA2745914 (C) more


## Abstract of CN103921830 (A)


The invention relates to a seat attachment for a stroller, single stroller and double strollers. Such a seat attachment may be used to reversibly convert a single stroller into a double stroller. More specifically, versions of the seat attachment relate to a seat attachment for a stroller capable of supporting a seat such as, but not limited to, a stroller seat, a baby seat, bassinet, a pram, a car seat, or a baby carrier, for example. The seat may be supported in front of a permanent seat of the stroller.


MOCKINGBIRD ET AL. EX1018

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代理人 雷晓斐

(51)Int.Cl.
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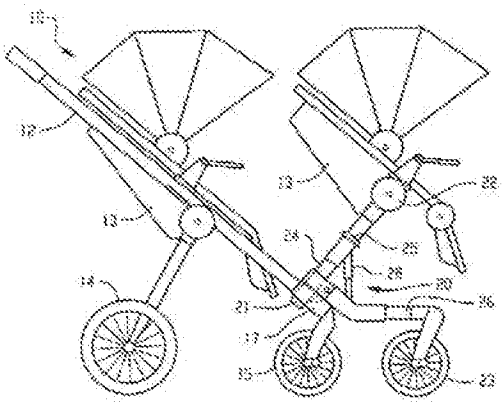
权利要求书1页 说明书8页 附图10页

(54)发明名称

用于手推童车的座椅附接件

(57)摘要

本发明涉及一种用于手推童车、单人手推童车及双人手推童车的座椅附接件。此座椅附接件可用来将单人手推童车以可逆方式转换成双人手推童车。更具体来说，所述座椅附接件的版本涉及一种用于手推童车的座椅附接件，其能够支撑例如但不限于手推童车座椅、婴儿座椅、摇篮、婴儿车、汽车座椅或婴儿吊篮等的座椅。可将所述座椅支撑在所述手推童车的永久座椅前部。




CN 103921830 A

1. 一种用于手推童车的座椅附接件，其包括：

一个分离的左侧附接框架部件，其中所述左侧附接框架部件包括：

连接器部分，其能够以可逆方式连接到手推童车框架，及左侧座椅支撑元件，其能够将座椅支撑于前向或后向的位置中；以及

一个分离的右侧附接框架部件，其中所述右侧附接框架部件包括：

连接器部分，其能够以可逆方式连接到手推童车框架，及右侧座椅支撑元件，其能够将所述座椅支撑于位于所述左侧座椅支撑元件和所述右侧座椅支撑元件之间的前向或后向的位置中。

2. 根据权利要求 1 所述的用于手推童车的座椅附接件，其中所述座椅为婴儿座椅、汽车座椅、手推童车座椅、摇篮、婴儿吊篮、或婴儿车。

3. 根据权利要求 1 所述的用于手推童车的座椅附接件，其中所述左侧附接框架部件和所述右侧附接框架部件中的每一者具有第一端及第二端。

4. 根据权利要求 3 所述的用于手推童车的座椅附接件，其中所述第一端能够连接到手推童车框架。

5. 根据权利要求 4 所述的用于手推童车的座椅附接件，其中所述第二端连接到座椅附接部件。

6. 根据权利要求 1 所述的用于手推童车的座椅附接件，其进一步包括连接到所述左侧座椅支撑元件和所述右侧座椅支撑元件的手推童车座椅。

7. 根据权利要求 1 所述的用于手推童车的座椅附接件，其中两个连接器部分通过钮扣、搭扣件、摩擦配件、干涉配合、螺纹连接，锁定连接片，或键式连接中的至少一者以可逆方式连接到所述手推童车。

# 用于手推童车的座椅附接件

[0001] 本申请是申请号为 200980148829.3、申请日为 2009 年 12 月 4 日、发明名称为“用于手推童车的座椅附接件”的发明专利申请的分案申请。

## 技术领域

[0002] 本发明针对一种用于手推童车、单人手推童车及双人手推童车的座椅附接件。此座椅附接件可用来将单人手推童车转换成双人手推童车。更具体来说，本发明的实施例针对一种用于手推童车的座椅附接件，其能够支撑例如但不限于手推童车座椅、婴儿座椅、摇篮、婴儿车、汽车座椅或婴儿吊篮等的座椅。所述座椅附接件的实施例能够将单人手推童车以可逆方式转换成双人手推童车。

## 背景技术

[0003] 具有多个幼儿的父母可能很难在不同地方之间运输其孩子。儿童走路慢而容易分心，且因此可能在其父母正试图在有限量的时间内完成购物任务或运动一下时落后父母。作为响应，许多父母已购买双人手推童车，其允许父母或监护者同时推着两名儿童且因此允许其更高效地办杂事、散步或慢跑。如此，双人手推童车允许父母或监护者具有比其在仅单人手推童车的情况下将具有的更大的自由，尤其是在试图照管两个睡着的儿童时。

[0004] 虽然双人手推童车具有某些优点，但双人手推童车也具有缺点。双人手推童车大致大于单人手推童车，且因此较难以操纵通过门口及沿着商店的走道行进。通常，能够容纳两名儿童的益处大大地抵消了这些缺点。然而，当父母或监护者仅随身带一个孩子时，双人手推童车的益处便不能实现而缺点仍存在。

[0005] 因此，父母通常买两个或两个以上手推童车以在不同时间使用，单人手推童车用于其仅随身带一个孩子时的时间且双人手推童车用于其需要将容纳两个孩子的手推童车时的时间。此通常产生其自身的一组问题。必须储存多个手推童车且典型汽车的尾箱或运动型多用途车的后部中存在很少空间来用于折叠式双人手推童车及折叠式单人手推童车两者。

[0006] 手推童车制造商已尝试通过提供用于使第二个儿童站在单人手推童车的后部上的地方或为第二个儿童提供挂在单人手推童车的座椅下方且稍靠后的另一座位的附接件来解决此问题。此为儿童提供第二个座椅，但所述儿童被紧裹到前座椅的后部，此可能为不舒适的、减少座椅下方储存的容量且妨碍父母将手提袋挂在把手上。

[0007] 存在对可方便地转换成双人手推童车的单人手推童车的需要。还需要将单人手推童车转换成能够容纳两名儿童而不损失父母或监护者的方便性的全双人手推童车的转换套件。

## 发明内容

[0008] 手推童车通常为单人手推童车（具有一个座椅以用于运输一名儿童的手推童车）或还可为双人手推童车（具有两个座椅以用于运输两名儿童的手推童车）。本发明的实施

例针对一种用于手推童车的座椅附接件，其包括：连接器部分，其能够直接连接到手推童车框架或连接到所述手推童车框架的附接框架部件；及座椅支撑元件，其能够支撑座椅。在某些实施例中，所述用于手推童车的附接件包括具有第一端及第二端的附接框架部件。所述第一端可能够将所述座椅附接件连接到手推童车框架且所述第二端可能够连接到所述座椅支撑元件。所述座椅支撑元件因此能够将座椅支撑在手推童车上。在更特定实施例中，可将所述座椅支撑在前向或后向位置中。

[0009] 另一实施例包括手推童车及用于所述手推童车的座椅附接件，其中所述手推童车包括连接到所述手推童车的框架的附接框架部件且所述用于手推童车的座椅附接件包括连接器部分。所述附接框架部件及所述连接器部分包括能够牢固地连接在一起的组件。在某些实施例中，所述附接框架部件及所述连接器部分包括能够牢固地且以可释放方式连接在一起的组件。以此方式，所述座椅附接件可附接到所述手推童车，且如上文所界定的座椅可连接到所述座椅附接件，因此将单人手推童车以可逆方式转换成双人手推童车。

[0010] 在另一实施例中，所述用于手推童车的座椅附接件进一步包括至少一个车轮。所述车轮可通过车轮支撑框架连接到所述座椅附接件，所述车轮支撑框架可刚性地附接到或可以枢转方式附接到所述座椅附接件。所述车轮支撑框架可连接到座椅附接件的任一区段，优选地所述车轮支撑框架以枢转方式连接到所述座椅附接件的后部部分在邻近于连接器部分的区域中或连接于接近附接部分的中间处。

[0011] 所述用于手推童车的座椅附接件的实施例可进一步包括折叠机构。所述折叠机构可包括以滑动方式连接到所述附接部分的滑动部件以及具有连接到所述滑动部件的第一端及连接到所述车轮支撑框架的第二端的折叠框架部件或斜撑。所述折叠机构允许所述车轮支撑框架从第一位置（使用中位置）枢转到第二位置（折叠位置）。所述用于手推童车的附接件还可包括锁定机构，其在使用中位置中将所述附接件紧固到手推童车且在处于折叠位置中时将所述手推童车解锁以允许所述附接件连接到所述手推童车或从所述手推童车拆卸。所述锁定机构可为附接到所述车轮支撑框架的小突出部，其啮合所述手推童车或所述手推童车附接部分中的对应孔口以将所述附接件紧固到所述手推童车。在折叠位置中，所述突出部不啮合在所述孔口中。

[0012] 另一方面针对一种双人手推童车。所述双人手推童车可包括框架，其中所述框架包括把手部分、前车轮支撑部分、后车轮支撑部分及折叠机构。所述双人手推童车的实施例包括手推童车框架，所述手推童车框架包括车轮、所述框架、第一座椅及连接到所述框架的连接器部分。所述双人手推童车可进一步包括座椅附接框架，所述座椅附接框架包括车轮、第二座椅及能够连接到手推童车框架的连接器部分的第二附接部分。所述第二附接部分可以可释放方式连接到所述连接器部分。此外，所述第二座椅可以可释放方式连接到所述座椅附接框架且能够将所述第二座椅支撑在前向或后向位置中。

[0013] 所述双人手推童车的另一实施例包括能够以可释放方式支撑第一儿童座椅的第一座椅附接件及能够以可释放方式支撑第二儿童座椅的第二座椅附接件。所述座椅附接件可包括用于将座椅支撑在两个侧上的两个座椅连接器部分。

[0014] 所述双人手推童车的又一实施例包括邻近于前车轮支撑部分的至少一个第一座椅附接件及邻近于每一折叠机构及/或把手部分的第二座椅附接件。所述第一座椅附接件可位于连接到所述车轮支撑部分的至少一个前车轮上面。

[0015] 所述手推童车的又一实施例包括：框架；至少一个前车轮；至少一个后车轮；第一手推童车座椅，其具有永久地附接到所述框架的至少一个第一附接部分；及至少一个以可释放方式连接的第二座椅附接部分，其能够将第二座椅支撑在所述第一手推童车座椅的前部。如同在其它实施例中一样，所述座椅附接件可包括两个座椅连接器。任一个或两个座椅附接部分可为具有两个座椅连接器的单个部分或各自包括一座椅连接器的两个单独件。

[0016] 在以上实施例中的任一者中，手推童车、双人手推童车或附接件可包括以下特征中的一者或一者以上：用于以可拆卸方式接纳所述附接部分的套筒。所述座椅附接部分可包括突出部，其具有与所述套筒的互补形状以用于插入到所述套筒中。此外，所述第二座椅可与所述座椅附接件成整体。

[0017] 在各种实施例中呈现了手推童车、双人手推童车及附接件的方面，然而，所属领域的技术人员将理解各种实施例的组件的各种变化形式及可互换性，其打算包含在本发明的范围中。

## 附图说明

[0018] 图 1 展示单人手推童车的实施例；

[0019] 图 2 展示用以将单人手推童车转换成双人手推童车的座椅附接件的实施例；

[0020] 图 3 展示图 1 的单人手推童车附接到图 2 的座椅附接件的组合；

[0021] 图 4 展示能够将汽车座椅支撑在图 2 的附接件上的座椅附接件的实施例；

[0022] 图 5 展示图 1 的单人手推童车附接到呈三轮车样的骑乘装置形式的附接件的实施例的组合；且

[0023] 图 6A 展示用于将附件支撑在手推童车上的附件附接件；图 6B 展示用于附接到图 6A 的附件附接件的手提袋或手提包。

[0024] 图 7 展示用于支撑包括一个车轮的座椅的附接件。

[0025] 图 8 展示能够以可逆方式从单人手推童车转换成双人手推童车的手推童车的实施例，其包括不包括车轮的附接部分。

[0026] 图 9A、9B、9C、9D、9E 及 9F 展示图 8 中所示的手推童车的实施例的各种配置。

## 具体实施方式

[0027] 本发明涉及一种用于手推童车的附件、附接件或转换套件（下文中称“座椅附接件”）。如上文所论述，父母或监护者可能发现自己处于其中在一手推童车中运输两个儿童会更方便的情形中，但同时发现具有单人手推童车及双人手推童车两者是不方便的。所述座椅附接件的实施例解决此问题。在一个方面中，所述用于手推童车的座椅附接件的实施例能够将单人手推童车转换成双人手推童车。举例来说，所述座椅附接件可支撑例如但不限于手推童车座椅、婴儿座椅、摇篮、婴儿车、婴儿吊篮或汽车座椅的座椅。因此，父母或监护者不需要单人手推童车及双人手推童车两者。经配置以接纳用于将单人手推童车转换成双人手推童车的座椅附接件的手推童车为使用者提供方便性。可通过将所述座椅附接件附接到单人手推童车且接着附接第二座椅来将所述单人手推童车连接成双人手推童车。如此，所述用于将单人手推童车转换成双人手推童车的座椅附接件的实施例包括能够连接到手推童车框架的至少一个连接器部分及能够支撑座椅的座椅支撑元件。所述座椅附接件可

任选地包括用于额外支撑及稳定性的至少一个车轮，然而，为更方便起见，所述附接件的实施例不包含车轮。在某些实施例中，车轮可使双人手推童车稳定，但在所述附接件的其它实施例中，所述车轮可能并非合意的或必需的。举例来说，所述附接件的额外实施例包括手推车样、四车轮货车样、三轮车样的附接件或可连接到手推童车的其它骑乘玩具。三轮车样的附接件将允许儿童在手推童车的前部骑乘或被推着。

[0028] 图 1 中展示单人手推童车 10 的实施例的侧视图。注意，图 1 仅展示单人手推童车 10 的一侧，然而，大多数组件包含位于所述单人手推童车的另一侧上但未展示于图 1 中的互补组件。单人手推童车 10 包括支撑座椅 13 的框架 12。框架 12 可任选地包含至少一个（优选地为两个）折叠机构 16，其允许将手推童车 10 折叠成用于储存或运输手推童车 10 的更方便大小。

[0029] 在此实施例中，将座椅 13 展示为典型的手推童车座椅，然而，其它类型的座椅可用于单人手推童车中。座椅 13 可永久地附加到框架 12 或以可释放方式连接使得其能够被拆卸并用不同座椅来替代。如本文中所使用，“以可释放方式连接”或“以可释放方式附接”意指所述连接并非永久连接且所述连接能够由手推童车的使用者连接及断开而不需要特殊工具或特殊技能。可释放连接包含（但不限于）钮扣、搭扣件、摩擦配件、干涉配合、螺纹连接、锁定连接片、键式连接、其它扣件等。在图 1 的手推童车 10 上，框架 12 支撑在一对后车轮 14 及一对前车轮 15 上。在此实施例中，后车轮 14 为固定的且不以所述框架为轴而旋转或枢转。单人手推童车 10 上的所述对前车轮 15 枢转以使得使单人手推童车 10 转动更容易且更方便。虽然在某些手推童车中枢转车轮可为优选的，但具有固定非枢转车轮的手推童车也为常见的。应注意，单人手推童车不需要成对的前车轮或后车轮且可用单个车轮来替代前对车轮 15 或后对车轮 14。按常规，许多单人手推童车（包含伞式手推童车、慢跑手推童车、全地形手推童车以及其它手推童车）可仅包含一个前车轮。本发明的座椅附接件的实施例可能够将任何样式的手推童车转换成双人手推童车，包含具有一个或两个前车轮的手推童车。

[0030] 手推童车 10 的实施例包括两个附接框架部件 17。连接器部分优选地位于手推童车的前部上以允许座椅附接件及座椅连接到手推童车 10 的前部。附接框架部件 17 允许座椅附接件（例如用于将单人手推童车 10 转换成如图 3 中所示的双人手推童车的座椅附接件）连接到手推童车。图 3 中仅展示一个座椅附接件，手推童车 10 将使用如图 3 中所展示的两个座椅附接件或包括两个座椅支撑元件的一个座椅附接件。手推童车 10 的实施例具有左侧及右侧附接框架部件 17。手推童车 10 的座椅附接件的实施例将包括能够在附接框架部件 17 处连接到手推童车框架的对应连接器部分。虽然关于单人手推童车描述了用于手推童车的座椅附接件，但所述附接件可类似地附接到双人手推童车。因此，所述座椅附接件的实施例可用于将双人手推童车转换成三人手推童车（如果需要的话）。

[0031] 图 2 中展示本发明的座椅附接件 20 的实施例。图 2 的座椅附接件呈解锁及折叠配置。座椅附接件 20 包括：能够连接到附接框架部件 17 的一对连接器部分 21，能够支撑座椅的两个座椅附接元件 22，及车轮 23。在此实施例中，所述连接器部分连接到座椅附接件 20 的后部，从而允许座椅附接件 20 连接到手推童车（例如图 1 中所示的手推童车 10）的前部。所述座椅附接件的其它实施例可包含一个以上车轮、一个连接器部分、一个座椅支撑元件或这些元件的组合。举例来说，在具有一个车轮的手推童车的实施例中，所述附接框

架部件可位于前车轮的轮叉上。

[0032] 座椅附接件 20 包括将附接件 20 的车轮 23 连接到附接框架部件 24 的车轮支撑框架 26。每一附接框架部件 24 具有第一及第二端。所述第一端能够连接到手推童车框架且所述第二端连接到座椅支撑元件 22。座椅附接件 20 的实施例包括以枢转方式连接到两个附接框架部件 24 的车轮支撑框架 26。车轮支撑框架 26 或附接框架 24 可横跨手推童车在两个附接框架部件 17 之间的宽度。枢转连接 27 允许折叠并方便地储存或运输座椅附接件，但并非是本发明所必需的。所述枢转连接为任选的且提供更大方便性，然而，附接件的实施例可包括以可释放方式连接的车轮支撑框架或刚性框架，其可经并入以产生具有更大强度以供在其中（例如）可需要更强座椅附接件的情形中（例如在全地形或慢跑手推童车的情况下）使用的座椅附接件。可在附接框架上的任一点处连接所述车轮支撑框架，优选地在接近连接器部分 21 处或在接近附接框架 24 的中间处连接所述车轮支撑框架。

[0033] 举例来说，不具有车轮的座椅附接件的实施例可包含连接器部分 21 或附接框架部件 24 及座椅附接部件 22。在此实施例中，将不需要枢转连接 27、车轮支撑框架 26、滑动连接器 25 或车轮 23。

[0034] 座椅附接件 20 包括折叠机构，所述折叠机构包括连接到斜撑 28 的第一端的滑动连接器 25。斜撑 28 的第二端以枢转方式连接到车轮支撑框架 26。在此实施例中，可使滑动连接器 25 在附接框架部件 24 上于第一位置与第二位置之间移动。随着滑动连接器 25 移动，斜撑 28 将车轮支撑框架 26 从使用中位置推到储存位置。所述储存位置较紧凑，如图 2 中所示。另外，座椅附接件 20 的实施例包括能够将座椅附接件 20 紧固到手推童车（例如图 1 中所示的手推童车 10）的锁定机构 29。通过将滑动连接器 25 移动到其中使车轮支撑框架 26 及车轮 23 延展的使用中位置来啮合锁定机构 29。在用于手推童车 10 的座椅附接件 20 的实施例中，座椅附接件 20 的车轮以枢转方式连接到所述连接器部分，且当所述车轮处于使用中位置时，可释放连接被锁定，且当将车轮 23 移动到储存位置时，可释放连接被解锁，从而允许从手推童车 10 拆卸座椅附接件 20。可储存座椅附接件 20 且手推童车 10 可方便地用作单人手推童车。按设计，座椅附接件 20 可重新连接到手推童车 10 以用作双人手推童车。在本发明的任一实施例中，可将座椅附接部分在手推童车框架上紧固到适当位置中且锁定机构可与具有或不具有车轮的实施例一起使用。所述座椅附接件或手推童车框架可包括用于将手推童车与座椅附接件紧固在一起的锁定机构。所述锁定机构可为能够在使用期间将各组件紧固在一起的任何机构且可为（例如）摩擦锁定装置、螺纹连接、孔中栓塞 (peg in a hole) 或干涉锁定装置，例如孔或槽中销子。在图 2 中所示的实施例 20 中，在使附接件 20 从展开位置移动到折叠位置时，锁定机构 29 随车轮支撑框架 26 枢转。锁定机构 29 可滑动到图 1 中所示的手推童车 10 的附接框架部件中的孔或凹口中。如此，可通过将附接件 20 的附接部分 21 定位于手推童车 10 的附接部分 17 的槽 18 中而将附接件 20 附接到手推童车 10。可将滑动连接器 25 移动到使用中位置，移动车轮支撑框架且将锁定机构 29 定位到手推童车 10 的锁定槽 19 中。

[0035] 座椅附接件 20 的实施例的连接器部分 21 具有圆柱形形状。可将连接器部分 21 插入到图 1 的手推童车 10 的附接框架部件 17 的圆柱形凹部 18 中以紧固所述座椅附接件并将单人手推童车转换成双人手推童车，如图 3 中所示。座椅附接件的其它实施例可包含任何类型的连接器部分。所述连接器部分可具有实心或管状构造且可为任何横截面形状，

举例来说，包含（但不限于）圆形、多边形、正方形、矩形及三角形。可利用其它附接机构将所述座椅附接件连接到手推童车，例如（但不限于）U 形托架、U 形螺栓、管夹、O 形托架、螺丝、螺栓或其它夹紧或附接构件。手推童车的附接框架部件具有互补及协作形状，其允许将连接器部分紧固到手推童车的附接部分。

[0036] 在图 3 中，展示图 2 的座椅附接件 20 连接到图 1 的单人手推童车 10，从而形成双人手推童车。将双人手推童车配置展示为两个手推童车座椅 13 呈直列式配置，但还可将其它配置（例如手推童车座椅及摇篮或婴儿车）支撑在所述双人手推童车上。此外，座椅附接件的座椅支撑元件可能够将前手推童车座椅支撑在前向或后向位置中。

[0037] 手推童车 10 的实施例仅作为一种类型的手推童车的实例而展示，所述手推童车的框架可为许多可能配置中的任一者。本发明的附件的实施例可经配置以用在手推童车的任何此种配置上。举例来说，婴儿手推童车的不同实施例可不包含两个前车轮，可不包含折叠机构或可只包含仅一个折叠机构。另外，婴儿手推童车可包含婴儿手推童车 10 中不包含的额外特征。举例来说，所述手推童车可任选地包括固定前车轮，完全不同的框架配置或位于手推童车的座椅底下的储存篮。

[0038] 座椅支撑部件可为能够将座椅支撑在座椅附接件上的任何配置。图 4 中展示供与汽车座椅或其它婴儿座椅一起使用的座椅支撑部件的另一实施例。图 4 的座椅支撑部件 40 的实施例包括主要支撑件 41。主要支撑件 41 包括用于支撑座椅的中心部分的支架。座椅的另一部分可搁靠在支撑杆 42 上。在此实施例中，支撑杆 42 可经调整以容纳不同形状及大小的座椅。支撑杆 42 可在孔口 43 内滑动且当处于支撑某一座椅的所要位置中时被锁定于适当位置中。因此，座椅被支撑在两个主要支撑件 41 及支撑杆 42 上。可通过将带 44 及 45 环绕在座椅上并借助带扣或其它紧固构件将所述带锁定于此位置中来进一步将所述座椅紧固在座椅附接部件 40 中。

[0039] 图 5 中展示用于手推童车的座椅附接件的另一实施例。组合 50 包括手推童车 10 及座椅附接件 51。座椅附接件 51 为三轮车样的附接件，其包括连接器部分 52、具有座椅支撑元件 56、座椅 57 及车轮 55 的框架 53。所述三轮车样的附接件可附接到手推童车 10 以允许在手推童车 10 中推着一名儿童而一名儿童骑乘座椅附接件 51。举例来说，所述座椅附接件还可为其它形状，例如汽车、卡车或动物形状。

[0040] 图 5 的手推童车 10 的实施例包括额外附件附接部分 58。附件附接部分 58 附接到手推童车 10 的框架部件。附件附接部分 58 的实施例展示于图 6A 上。此实施例特别适用于将如图 6B 中所示的手提袋或手提包 64 附接到手推童车 10。

[0041] 当使用手推童车时，父母或监护者通常携带其它物项，例如手提包、食品杂货手提袋、蜂窝电话、尿布、清洁湿巾或者其它个人或婴儿相关物项。一些手推童车具有用于放置此些物项的底部储存篮。然而，这些储存篮可能不方便接近或一些轻量手推童车不包含此些储存物。因此，手推童车的使用者可将手提包或购物手提袋挂在手推童车的把手上。此由于容易接近而为方便的，但把手上的手提袋的重量可导致手推童车不平衡且增加手推童车向后倾倒的趋势。挂在手推童车的把手上的沉重的手提袋可甚至在座椅上有儿童的情况下也导致手推童车向后倾斜。如果手推童车正面临上坡或不平坦的地形、正被向上推过路边或由幼小的儿童占用，那么问题会更糟。举例来说，可通过上文所描述的夹紧或附接方法中的任一者将附接部分附接到手推童车的框架。优选地，在接近手推童车 10 的重心处附接



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附件附接件 58 以避免产生手推童车的不平衡条件。图 6A 中展示附件附接件 58 的实施例。展示附件附接件 58 在接近折叠机构处连接到图 1 中的手推童车 10 的手推童车框架 12。所述附件的实施例包括用于连接到手推童车框架的第一端 61 及用于以可释放方式连接到所述附件的第二端 62。第一端 61 包括可连接到手推童车 10 的框架 12 的孔口 64。在某些实施例中，孔口 64 在一角度上 - 使得附件附接部分 58 的轴线为大致水平的。附件附接件 58 可任选地包括用于将附件附接到附件附接件 58 的肋状件。如图 6A 中所示的肋状件可用任何其它锁定元件或紧固构件替换，包含（例如）摩擦配件、旋紧式配件、干涉配件。

[0042] 图 6B 中展示用于附接到附件附接件 58 的附件的一个实例。所述附件为手提袋或手提包 64。所述附件包含能够紧固到附件附接件 58 上的附接部分 62 的附接部分 65。可通过将附接部分 65 紧固到附接部分 62 而将手提袋或手提包 64 紧固在手推童车 10 上。如所展示，附接部分 65 在附件附接件 58 的圆柱形附接部分 62 上滑动。附接部分 65 可包含接纳将手提袋或手提包 64 紧固到手推童车 10 的肋状件 63 的内部环形凹部。因此，如从侧面所观看，手提袋或手提包 64 被紧固到手推童车 10 在所述手推童车的中心部分中。因此，手提袋或手提包 64 被方便地紧固到手推童车 10，同时不引起手推童车 10 的不平衡条件。

[0043] 图 8 中展示手推童车 80 的另一实施例。可在附接件上不添加另一车轮的情况下容易地将手推童车 80 从包括一个座椅的单人手推童车转换成包括两个座椅的双人手推童车。手推童车 80 包括能够支撑手推童车座椅 86 的框架 81。在此实施例中，框架 81 包括前车轮支撑部分 81a、后车轮支撑部分 81b 及把手部分 81c。手推童车 80 的实施例的框架 81 进一步包括连接前车轮支撑部分 81a、后车轮支撑部分 81b 及把手部分 81c 的折叠机构 81d。折叠机构 81d 允许将手推童车折叠成较紧凑大小以便储存或运输。图 8A 展示呈折叠配置的手推童车 80。

[0044] 手推童车 80 进一步包括至少一个前车轮 82（可在图 8A 中看到手推童车 80 的两个前车轮 82）、至少一个后车轮 83（可在图 8A 中看到手推童车 80 的两个后车轮 83）、手推童车座椅 86 及能够将第二个座椅支撑在所述手推童车座椅的前部的座椅支撑部分 84。手推童车 80 可进一步包括储存篮 87。座椅支撑部分可具有能够牢固地将座椅支撑在手推童车上的任何设计。举例来说，座椅支撑部分 84 可类似于图 2 中所示的座椅支撑部分 20，但不具有车轮 23、斜撑 28、枢转连接 27 及 / 或车轮支撑框架 26。优选地，所述座椅支撑部分能够支撑座椅使得处于所述座椅中的儿童大致高于手推童车的框架。此提供对座椅的更容易接近、不阻挡对储存篮的接近、允许座椅的更通用配置、允许将更多种的座椅附接到所述框架且允许父母或其它监护者更容易地监视并看到每一座椅中的儿童。

[0045] 手推童车 80 包括手推童车座椅 86。手推童车座椅 86 位于邻近于把手部分 81c 处。手推童车座椅 86 可以固定方式附接到或以可拆卸方式附接到框架 81。在其中手推童车座椅 86 以可拆卸方式附接到框架 81 的手推童车 80 的实施例中，手推童车座椅 86 可被拆卸及重新放置成后向配置（参见图 9A）、由座椅支撑元件 84 上的幼儿提篮 91 或汽车座椅替换（参见图 9C）或者用座椅支撑元件 84 上的婴儿车 92 替换（参见图 9D）。手推童车 80 的实施例可包括邻近于把手部分 81c 的第二座椅支撑元件 89。包括第二座椅支撑元件 89 的手推童车 80 允许座椅被容易地拆卸并重新配置成不同定向或用不同样式的座椅替换。

[0046] 手推童车 80 的实施例包括第一座椅支撑元件 84。座椅支撑元件 84 连接到手推童车 80 的前车轮支撑框架 81a。座椅支撑元件 84 邻近于框架 81 的前车轮支撑部分 81a。

所述座椅支撑元件能够将第二手推童车座椅 85 支撑在手推童车座椅 86 的前部。此为手推童车 80 的使用者提供方便性及多用性。座椅支撑元件可以固定方式附接到或以可拆卸方式附接到前车轮支撑部分 81a。前座椅 85 可大致定位于前车轮上方，使得手推童车保持稳定。优选地，所述座椅应经定位使得手推童车的重心在前车轮与后车轮之间。如果不，那么可在附接件上放置额外车轮，如先前所描述。座椅支撑元件 84 包括座椅连接器 88。座椅连接器 88 可为多用途的通用连接器，其允许在座椅支撑元件 84 上更换不同座椅。举例来说，任何样式的座椅可经配置以连接到所述座椅连接器，例如（但不限于）手推童车座椅、婴儿座椅、摇篮、婴儿车、婴儿吊篮或汽车座椅。

[0047] 所述手推童车附接件的实施例包括连接器部分及座椅支撑元件。所述连接器部分能够将所述座椅附接件连接到框架。

[0048] 在图 8 中所示的实施例中，手推童车 80 包括第一手推童车座椅 86 及第二手推童车座椅 85。展示手推童车座椅 86 呈前向配置且展示第二手推童车座椅 85 呈后向配置。座椅支撑元件 84 能够将座椅支撑在连接到车轮支撑部分 81a 的前车轮 82 上面。优选地，前座椅大致位于前车轮上方且后座椅大致位于后车轮上方。

[0049] 虽然在图 8 的侧视图中无法看到，但所述手推童车的典型实施例将包括两个座椅连接器部分。一个座椅连接器部分将支撑座椅的每一侧。所述连接器部分可为一件式或多个部分。

[0050] 图 9A 到图 9F 展示对于本发明的手推童车可能有的各种配置。这些配置不应被视为手推童车的所有可用配置且所属领域的技术人员基于本说明书及图式集将认识到许多额外可能性。依据前文将了解，虽然本文已出于说明的目的描述了本发明的特定实施例，但可做出各种修改，此并不背离本发明的精神及范围。因此，本发明不受除所附权利要求书以外的限制。

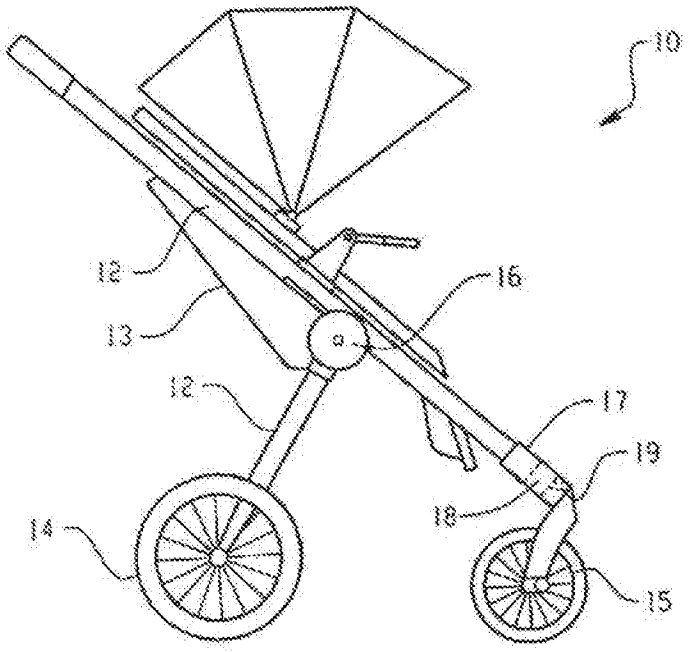



图 1

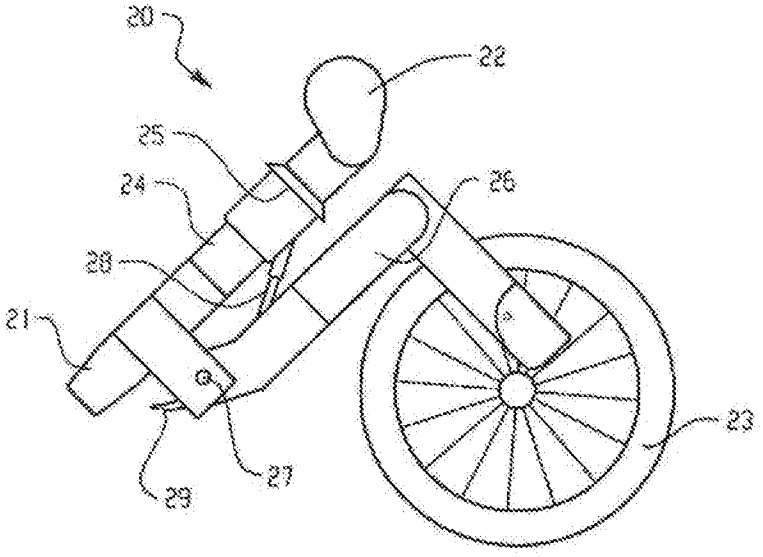



图 2

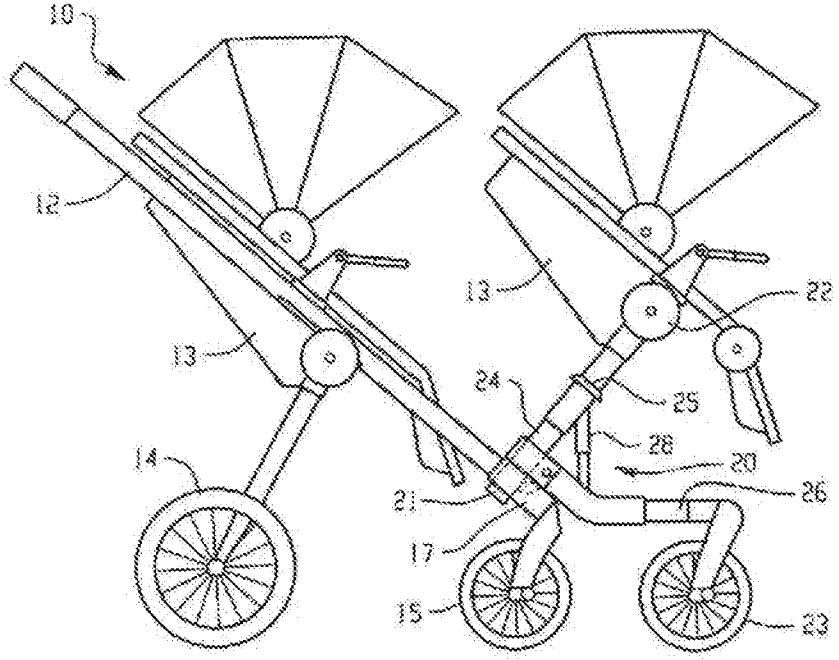



图 3

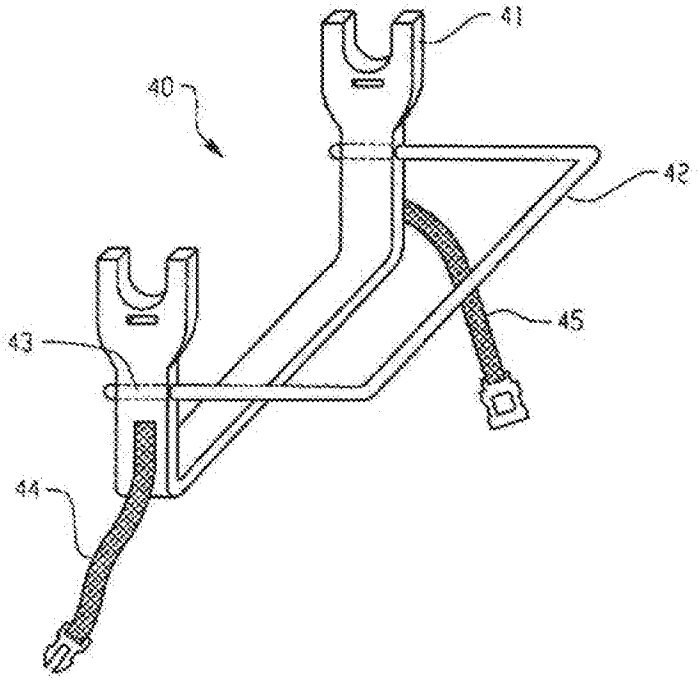



图 4

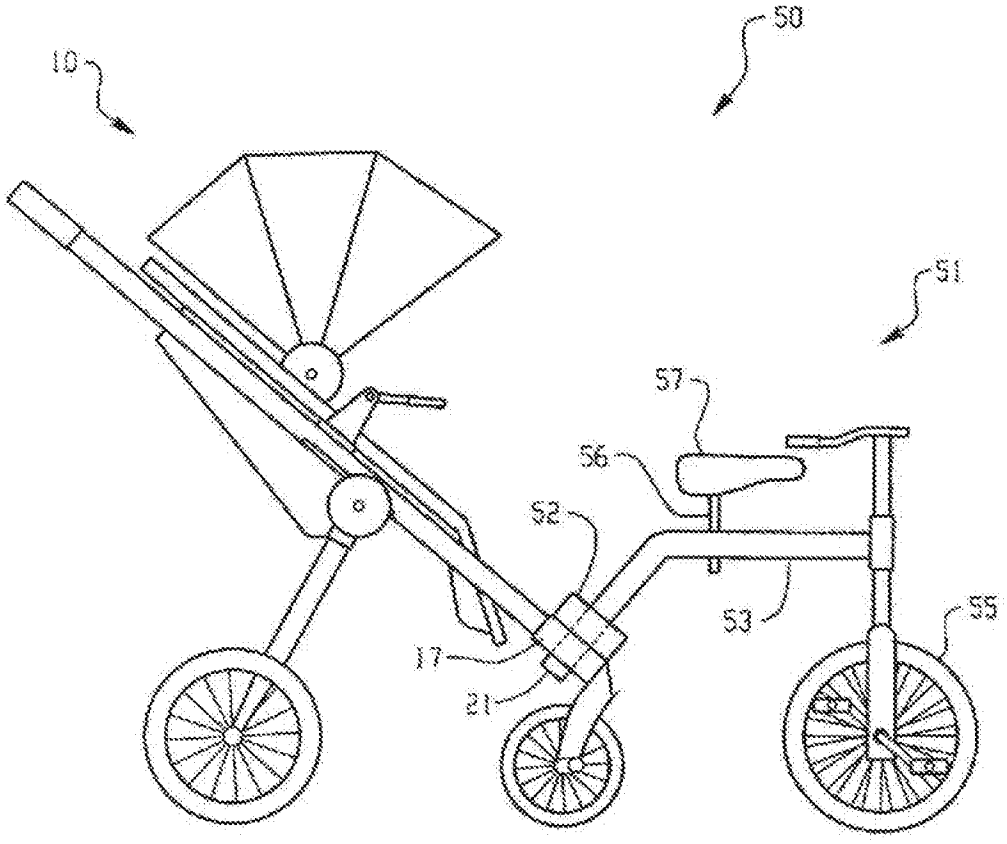



图 5

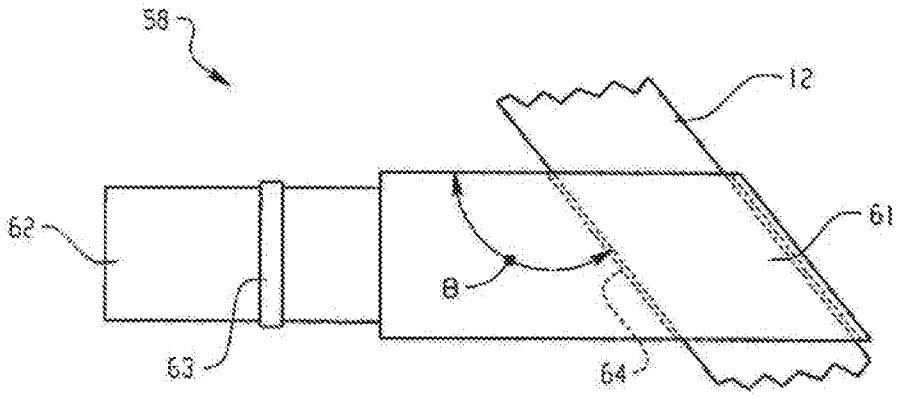



图 6A

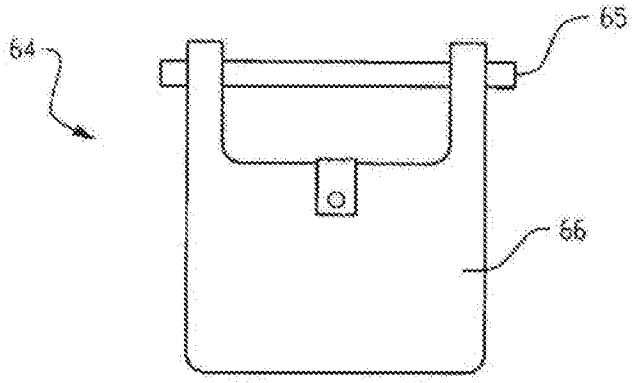



图 6B

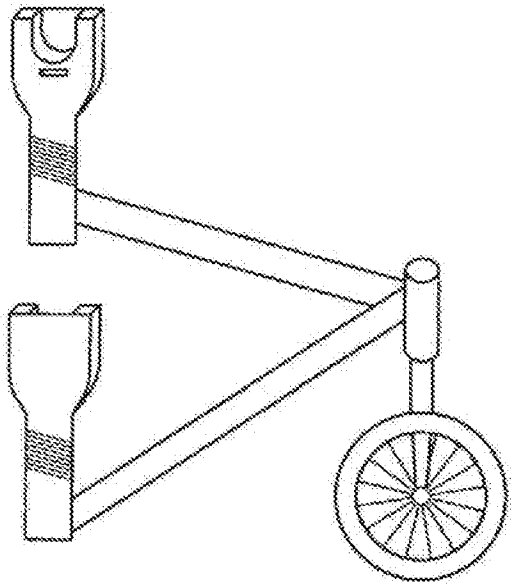


图 7

5/8

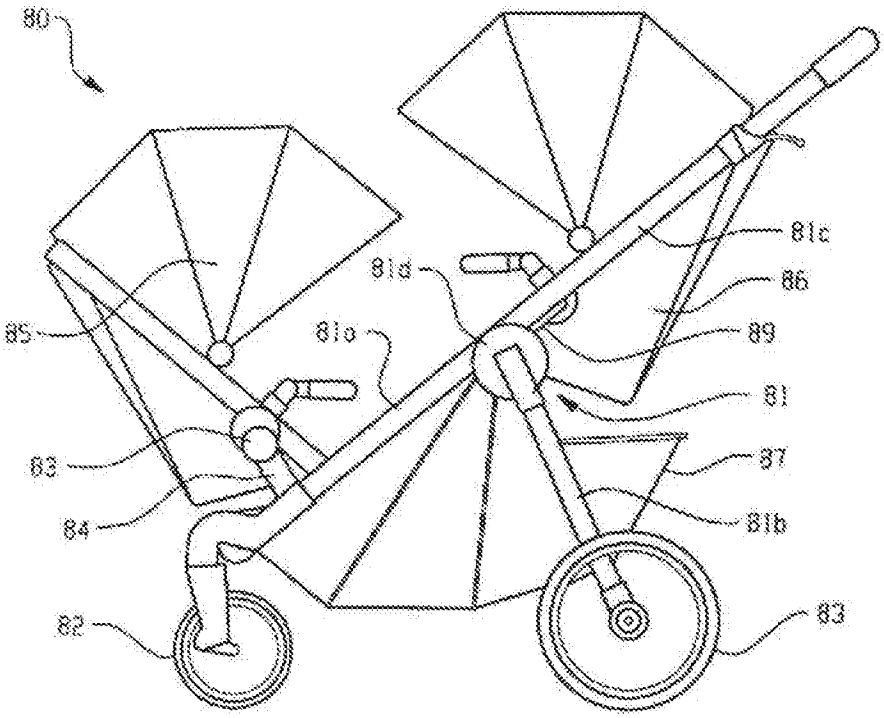

80
81c
81d
86
85
81a
89
81
83
87
84
81b
82
83

图 8

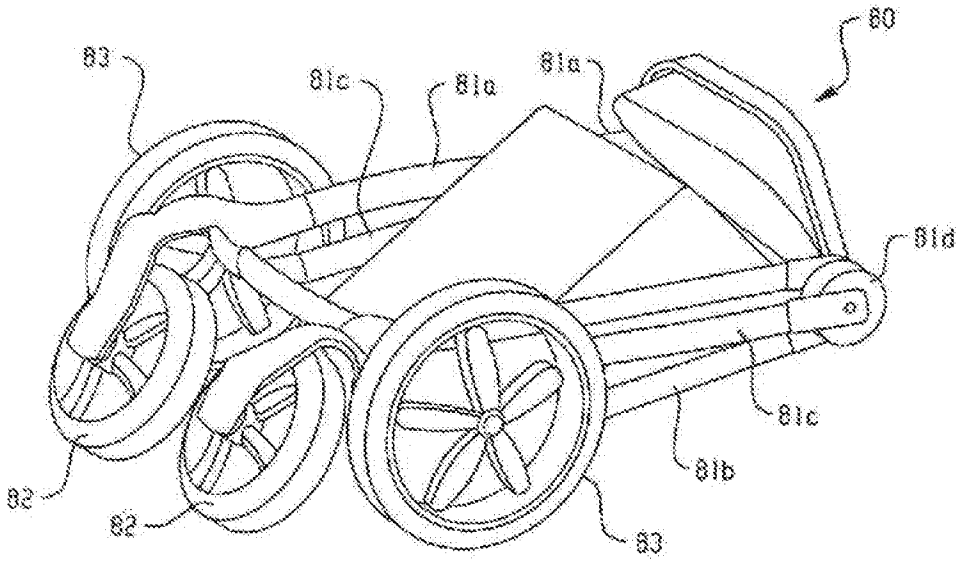

80
83
81c
81a
81a
81d
81c
81b
82
82
83

图 8A

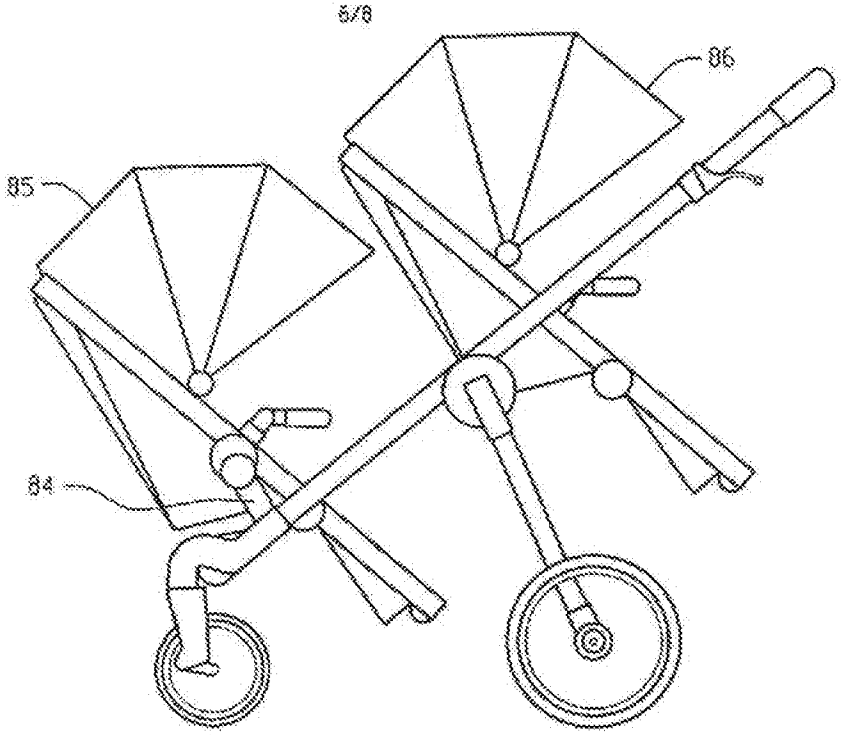



图 9A

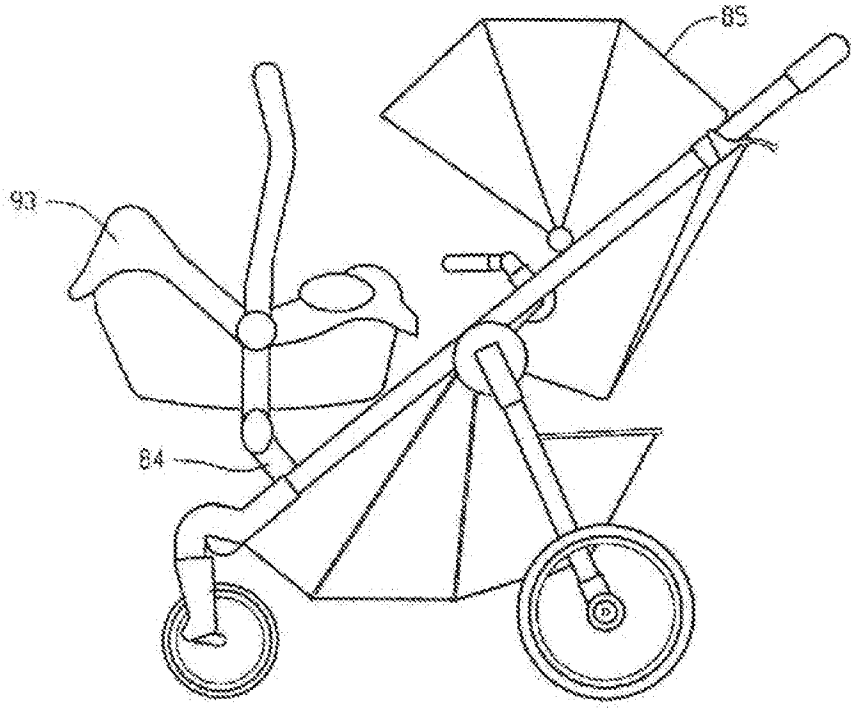



图 9B

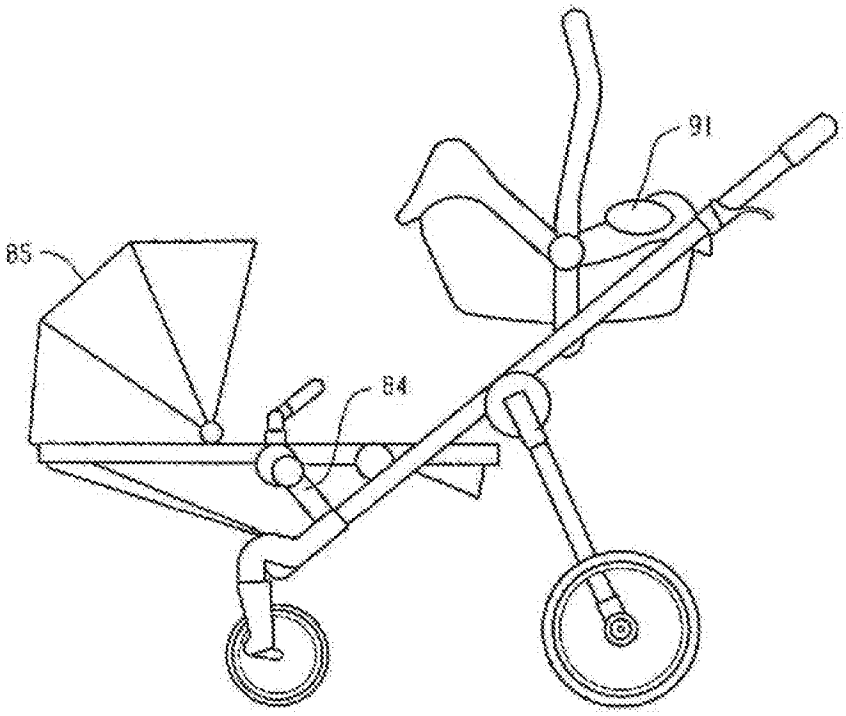



图 9C

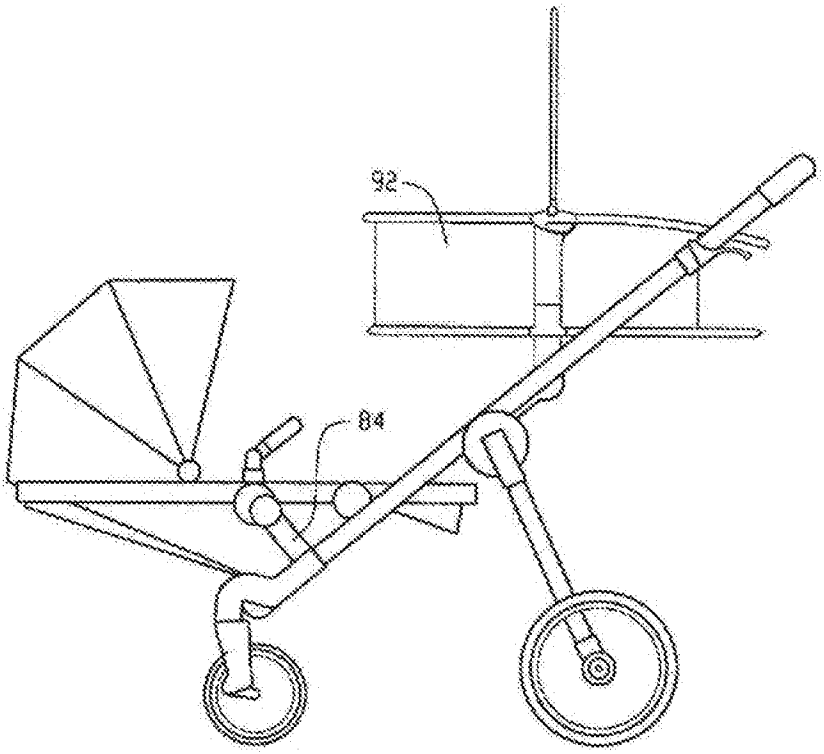



图 9D

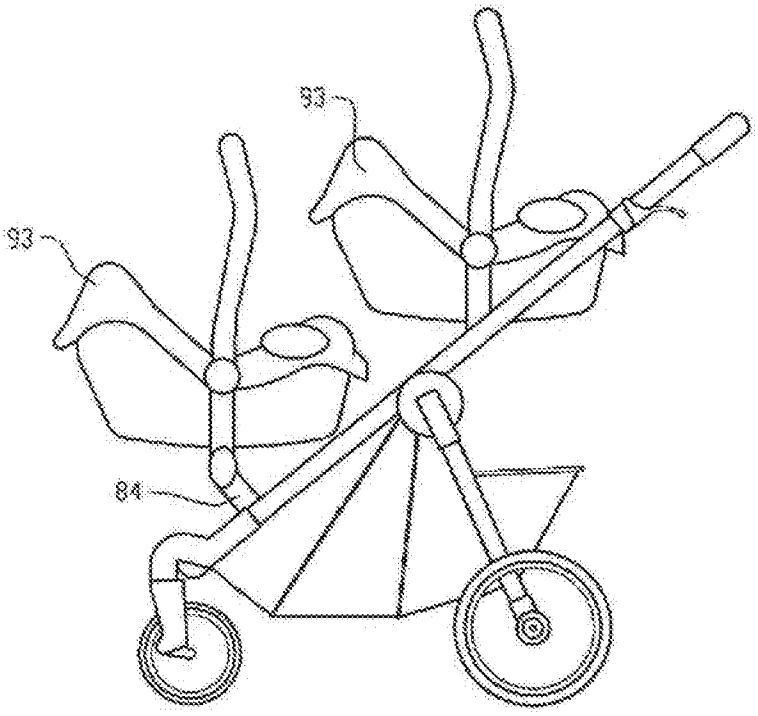



图 9B

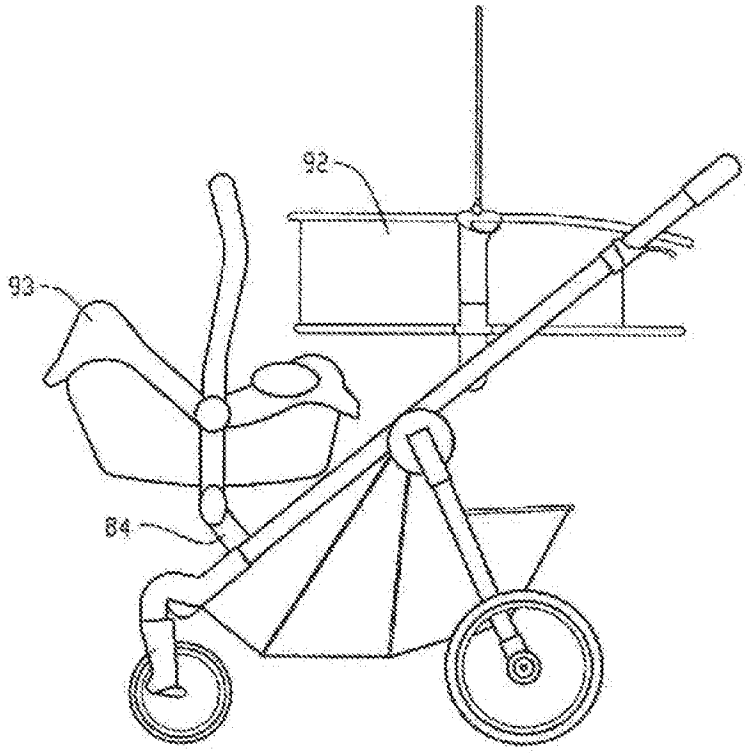



图 9F

Espacenet

# Bibliographic data: CN201626448 (U) — 2010-11-10

## Multifunctional baby carrier


**Inventor(s):** GE LUO ± (LUO GE)

**Applicant(s):** GE LUO ± (LUO GE)



**Classification:** **- international:** ***B62B7/04; B62B9/12***
**- cooperative:**

**Application number:** CN20102115279U 20100211

**Priority number(s):** CN20102115279U 20100211


## Abstract of CN201626448 (U)


The utility model relates to a multifunctional baby carrier, which comprises a baby carrier body, a baby carrier frame and wheels. Lateral handrails are arranged on two sides of the baby carrier body; a detachable device is arranged on the lateral handrails, and comprises a receiving device arranged on the lateral handrails and a connecting seat capable of being mounted and demounted on the receiving device; the receiving device comprises grooves formed on the lateral handrails; a cross rod is fixed in the grooves in the transverse direction; the connecting seat comprises a connecting seat casing, in which a fixed hook capable of being buckled in the cross rod is arranged; a spring is arranged between the fixed hook and the connecting seat casing, and is connected with a button; and the connecting seat is fixed on an automobile seat or a cradle. The utility model has the advantages that the detachable device is arranged on the lateral handrails of the baby carrier, so that the automobile seat or the cradle can be conveniently mounted or demounted to greatly facilitate users; and moreover, the structure is simple, and both the mounting and the demounting are very simple.

(19)中华人民共和国国家知识产权局

(12)实用新型专利

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(72)发明人 罗革

(51)Int.Cl.
*B62B 7/04*(2006.01)
*B62B 9/12*(2006.01)

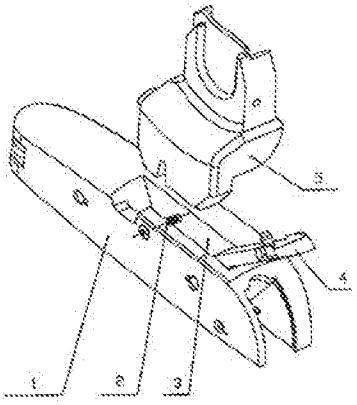
权利要求书 1 页 说明书 2 页 附图 3 页

(54)实用新型名称

一种多功能童车

(57)摘要

本实用新型涉及一种多功能童车，包括车身、车架与车轮，车身两侧设有侧扶手，所述的侧扶手上设置可拆卸装置，可拆卸装置包括设置在侧扶手上的接收装置和可装卸在接收装置上的连接座，所述的接收装置包括设置在侧扶手上的凹槽，所述的凹槽内横向方向上固定有横杆，所述的连接座包括连接座壳体，壳体内设置有能扣入横杆的固定钩，固定钩与连接座壳体之间设置弹簧，弹簧连接按钮，且连接座固定在汽车座椅或摇篮上。本实用新型在童车的侧扶手上设置可拆卸装置，使得汽车座椅或者摇篮可以方便地安装或拿下，大大方便了用户，且本实用新型结构简单，安装和拆卸都很简单。




CN 201626448 U

1. 一种多功能童车，包括车身、车架与车轮，车身两侧设有侧扶手，其特征在于：所述的侧扶手上设置可拆卸装置，所述的可拆卸装置包括设置在侧扶手上的接收装置和可装卸在接收装置上的连接座，所述的接收装置包括设置在侧扶手上的凹槽，所述的凹槽内横向方向上固定有横杆，所述的连接座包括连接座壳体，壳体内设置有能扣入横杆的固定钩，固定钩与连接座壳体之间设置弹簧，弹簧连接按钮，且所述的连接座固定在汽车座椅或摇篮上。

# 一种多功能童车

## （一）技术领域

[0001] 本实用新型涉及一种童车，尤其是涉及一种能放置多种部件的多功能童车。

## （二）背景技术

[0002] 目前市场上的童车一般不具备儿童汽车安全座椅功能，如专利号为 03225254.4 的中国实用新型专利一种两用童车，其结构包括可折叠主体，连接在主体下端的四个可折叠车轮，主体装设有汽车安全带卡扣机构，在儿童乘坐位置有用于缚紧乘员的安全带。完全打开时，与普通童车无异，四个车轮收折后，可放在汽车座椅上，扣上汽车安全带作为汽车安全座椅使用。虽然，该款童车实现双重功能，但是毕竟童车与汽车座椅在要求上差别较大，折叠后的童车作为汽车座椅在安全性和舒适性上大打折扣。

## （三）发明内容

[0003] 为了克服现有技术中的不足，本实用新型提供一种汽车座椅或提篮可拆卸地安装在童车上的多功能童车，结构简单，使用方便。

[0004] 本实用新型解决其技术问题的技术方案是：

[0005] 一种多功能童车，包括车身、车架与车轮，车身两侧设有侧扶手，所述的侧扶手上设置可拆卸装置，所述的可拆卸装置包括设置在侧扶手上的接收装置和可装卸在接收装置上的连接座，所述的接收装置包括设置在侧扶手上的凹槽，所述的凹槽内横向方向上固定有横杆，所述的连接座包括连接座壳体，壳体内设置有能扣入横杆的固定钩，固定钩与连接座壳体之间设置弹簧，弹簧连接按钮，且连接座固定在汽车座椅或提篮上。

[0006] 在童车的侧扶手上设置凹槽，凹槽内设置横杆，按下按钮，连接座通过固定钩锁定横杆，由于连接座固定在汽车座椅或提篮上，则汽车座椅或提篮就安装在童车上了。在拆卸时，只要按下按钮，固定钩从横杆中脱离就可以了，这时候，将汽车座椅安装在车上，或者可以手提提篮。在童车的侧扶手上设置可拆卸装置，使得汽车座椅或者提篮可以方便地安装或拿下，大大方便了用户。

[0007] 本实用新型的有益效果在于：本实用新型在童车的侧扶手上设置可拆卸装置，使得汽车座椅或者提篮可以方便地安装或拿下，大大方便了用户，且本实用新型结构简单，安装和拆卸都很简单。

## （四）附图说明

[0008] 图 1 是本实用新型可拆卸装置的结构示意图；

[0009] 图 2 是本实用新型连接座的爆炸结构示意图；

[0010] 图 3 是本实用新型的结构示意图。

## （五）具体实施方式

[0011] 下面结合附图和具体实施方式对本实用新型作进一步详细说明。

[0012] 如图 3 所示，一种多功能童车，包括车身、车架以及车轮，车架的两侧设有侧扶手 1，如图 1 所示，侧扶手上表面上设有凹槽 3，凹槽横向宽度方向悬空固定有一横杆 2，凹槽与横杆组成接收装置，侧扶手上还连接有能翻转的扶手盖 4，能盖住在凹槽上。如图 1、图 2 所示，另设有连接座 5，连接座 5 固定在汽车座椅或提篮 9 上，连接座可方便安装在接收装置上，连接座与接收装置组成侧扶手的可拆卸装置，连接座包括壳体 6，壳体背面设有连接座盖 7，壳体 6 内设置固定钩 8，且固定钩钩体能够伸出连接座，固定钩 8 与座壳体之间设置弹簧，弹簧连接按钮。按下按钮，将固定钩锁定横杆上，然后释放按钮，则汽车座椅和提篮 9 就连接在童车上了，如图 3 所示，而需要拆卸时，只需要将固定钩脱离就好了，这样，汽车座椅就可以方便地安装在汽车上，或者轻松地提提篮了。

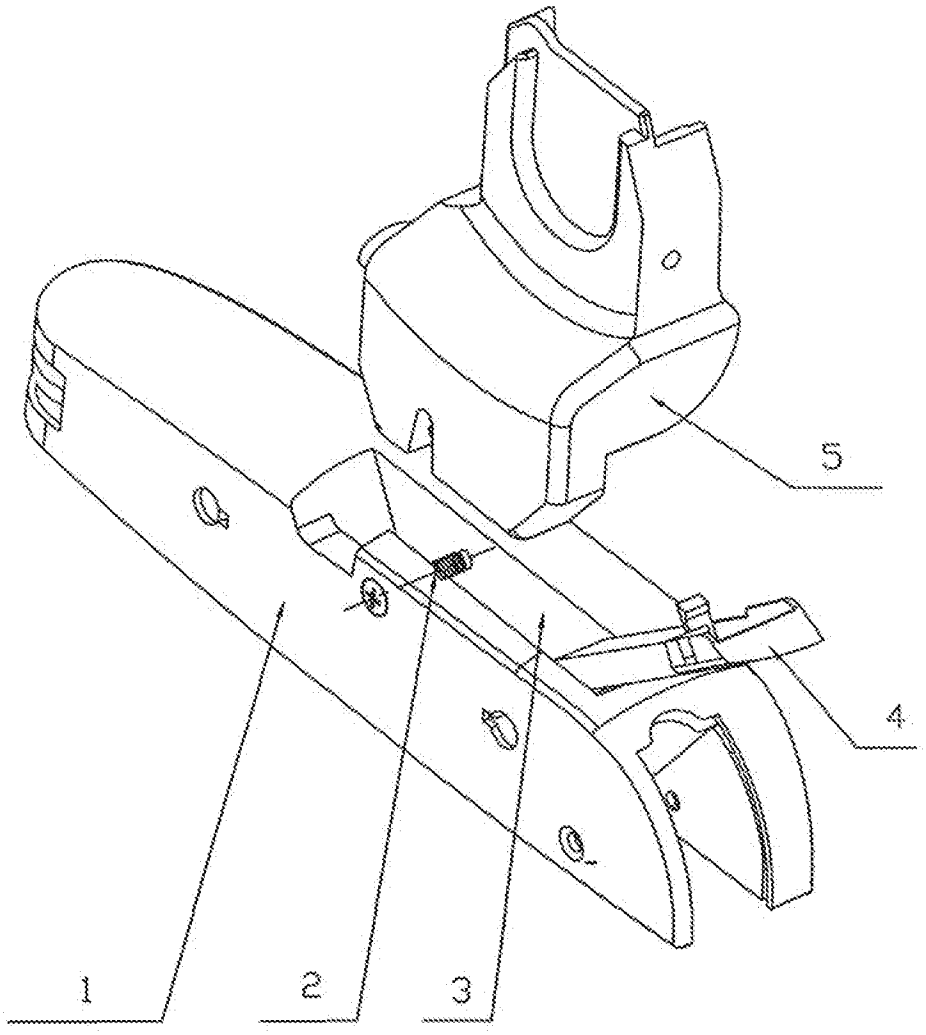



图 1

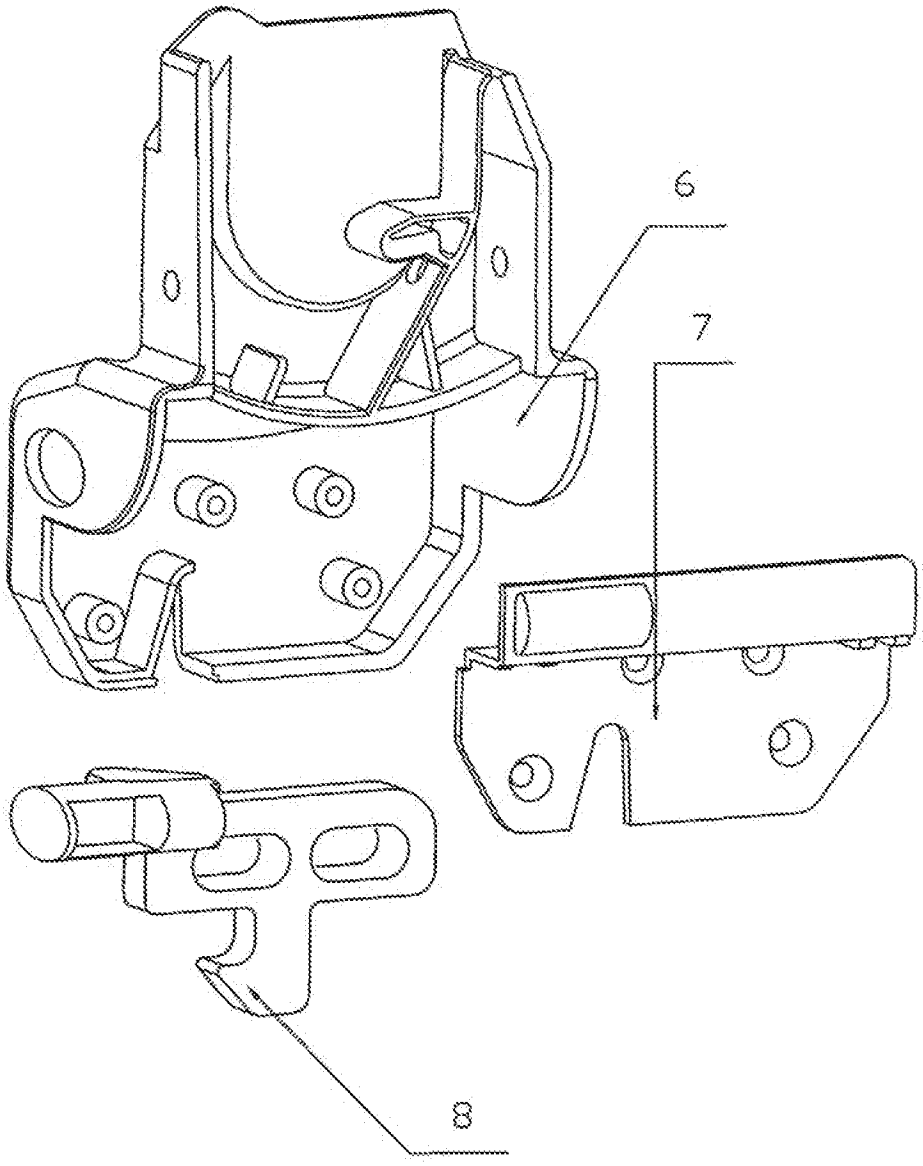



图 2

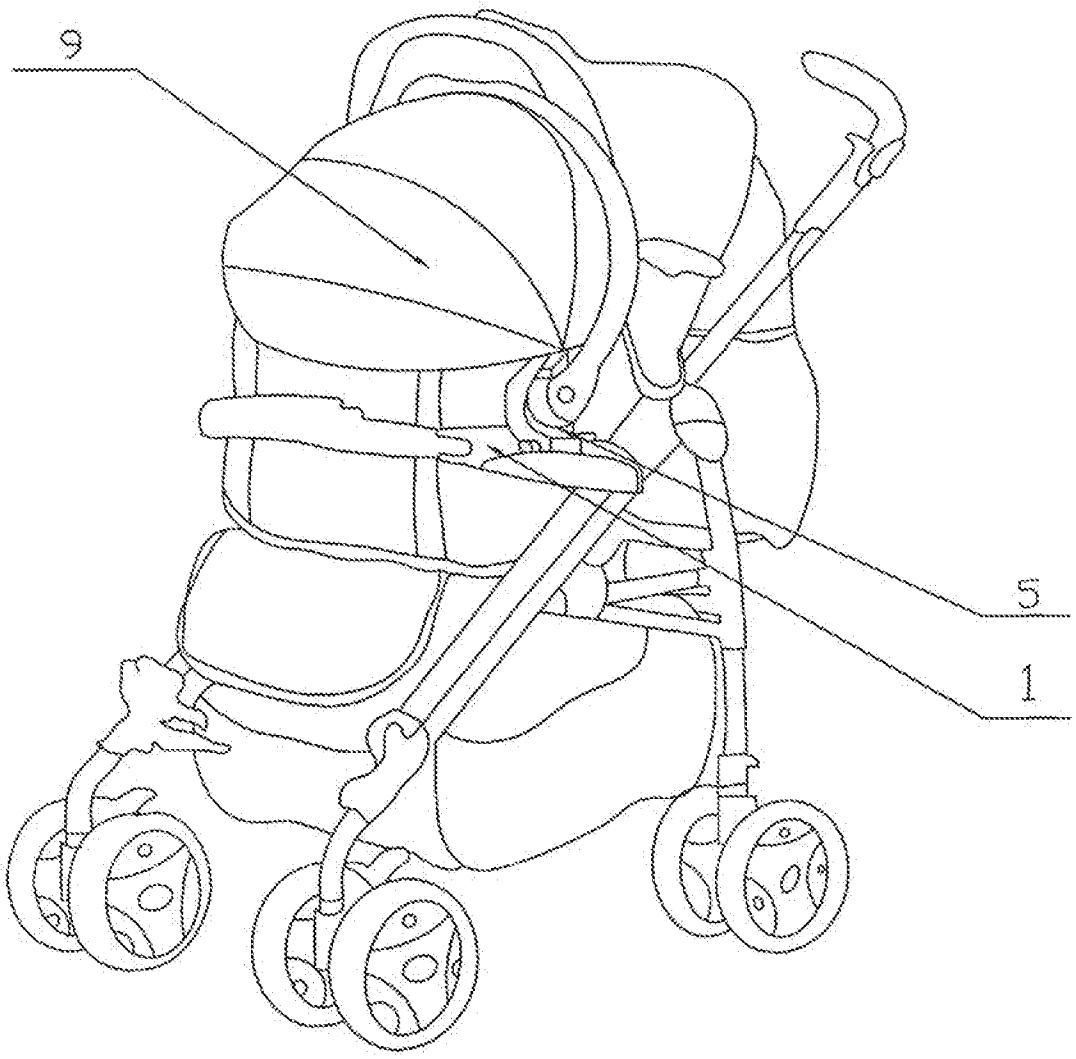



图 3

Espacenet

# Bibliographic data: CN201646823 (U) — 2010-11-24

## Baby trolley capable of change direction of sitting bag

**Inventor(s):** JIANZHAO GUO ± (GUO JIANZHAO)

**Applicant(s):** GOODBABY CHILD PRODUCTS CO LTD ± (GOODBABY CHILD PRODUCTS CO., LTD)

**Classification:** **- international:** ***B62B9/12***
**- cooperative:**

**Application number:** CN2010261383U 20100111

**Priority number (s):** CN2010261383U 20100111

## Abstract of CN201646823 (U)

The utility model relates to a baby trolley capable of change the direction of a sitting bag, which comprises a vehicle frame of the trolley and a sitting bag framework arranged in the vehicle frame of the trolley, wherein connecting elements which are detachably and fixedly matched and connected are respectively arranged in corresponding positions of the vehicle frame of the trolley and the sitting bag framework, the sitting bag framework is provided with a first position or a second positioning which is fixedly matched and connected with the vehicle frame of the trolley, and the first position horizontally rotates 180 degrees to be overlapped with the second position correspondingly to the vehicle frame of the trolley. Compared with the prior art, the utility model has the advantages that the sitting bag part in the baby trolley of the utility model can be singly dismounted for changing the direction, the nursing of babies can be convenient, the structure is simple, and the use is convenient.

(19)中华人民共和国国家知识产权局

(12)实用新型专利

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(21)申请号 201020061383.0

(22)申请日 2010.01.11

(73)专利权人 好孩子儿童用品有限公司
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代理人 孙仿卫

(51)Int.Cl.
*B62B 9/12*(2006.01)

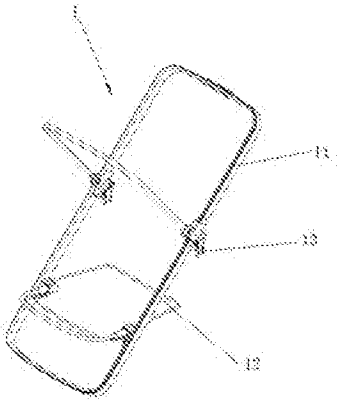
权利要求书 1 页 说明书 2 页 附图 3 页

(54)实用新型名称

一种可坐兜换向的儿童推车

(57)摘要

本实用新型涉及一种可坐兜换向的儿童推车，其包括推车车架、设置在推车车架内的坐兜框架，所述推车车架和坐兜框架的相应位置上各自设有相互可拆卸地配合固定连接的连接件，所述的坐兜框架具有与推车车架配合固定连接的第一位置或第二位置；相对于所述推车车架，所述的第一位置水平旋转180度后与所述第二位置重合。本实用新型与现有技术相比具有下列优点：本实用新型儿童推车中的坐兜部分可以单独拆卸下来进行换向，方便护理幼儿，结构简单使用方便。




CN 201646823 U

1. 一种儿童推车，其包括推车车架、设置在推车车架内的坐兜框架，其特征在于：所述推车车架和坐兜框架的相应位置上各自设有相互可拆卸地配合固定连接的连接件，所述的坐兜框架具有与推车车架配合固定连接的第一位置或第二位置；

相对于所述推车车架，所述的第一位置水平旋转 180 度后与所述第二位置重合。

2. 根据权利要求 1 所述的推车，其特征在于：所述的配合固定连接为卡扣连接方式。

3. 根据权利要求 2 所述的推车，其特征在于：所述的推车车架上的两相对侧部对称地设有卡槽，所述的坐兜框架的围框管上的相应位置设有与各卡槽配合固定连接的插件。

4. 根据权利要求 3 所述的推车，其特征在于：所述的卡槽位于所述推车车架的推把杆与前轮支架的连接处，所述的插件位于所述坐兜框架的上围框和下围框的连接处。

5. 根据权利要求 2 或 3 所述的推车，其特征在于：所述插件的前后侧对称地设有弹性突起；相应地，所述卡槽的前后侧壁对称地开设有与弹性突起配合卡扣孔。

# 一种可坐兜换向的儿童推车

## 技术领域

[0001] 本实用新型涉及一种儿童推车。

## 背景技术

[0002] 儿童推车一般大体上包括推车车架、设置在推车车架内的坐兜框架，现有技术中，坐兜框架与推车车架的两相对内侧固定连接。

[0003] 然后这样的结构设置不便于护理幼儿，例如不方便照顾观看，有时车向前推行时，幼儿无法避免日晒。

## 发明内容

[0004] 为了克服现有技术的不足，本实用新型提供了其包括推车车架、设置在推车车架内的坐兜框架，其中，所述推车车架和坐兜框架的相应位置上各自设有相互可拆卸地配合固定连接的连接件，所述的坐兜框架具有与推车车架配合固定连接的第一位置或第二位置；相对于所述推车车架，所述的第一位置水平旋转 180 度后与所述第二位置重合。

[0005] 优选的，所述的配合固定连接为卡扣连接方式。

[0006] 进一步优选的，所述的推车车架上的两相对侧部对称地设有卡槽，所述的坐兜框架的围框管上的相应位置设有与各卡槽配合固定连接的插件。

[0007] 再优选的，所述的卡槽位于所述推车车架的推把杆与前轮支架的连接处，所述的插件位于所述坐兜框架的上围框和下围框的连接处。

[0008] 优选的，所述卡槽的前后侧壁对称地开设有卡扣孔；相应地，所述插件的前后侧设有与卡扣孔配合的弹性突起。

[0009] 由于上述技术方案运用，本实用新型与现有技术相比具有下列优点：本实用新型儿童推车中的坐兜部分可以单独拆卸下来进行换向，方便护理幼儿，结构简单使用方便。

## 附图说明

[0010] 附图 1 为本实用新型儿童推车中的坐兜框架的立体图；

[0011] 附图 2 为附图 1 所示坐兜框架的侧视图；

[0012] 附图 3 为本实用新型的儿童推车的装配后立体图；

[0013] 其中：1、坐兜框架；11、上围框；12、下围框；13、插件；131、弹性突起；2、推车车架；21、推把杆；22、前轮支架；23、卡槽。

## 具体实施方式

[0014] 下面结合附图、详细说明本实用新型优选的实施方式：

[0015] 图 3 所示为一种儿童推车，其包括推车车架 2、设置在推车车架内的坐兜框架 1。

[0016] 推车车架 2 和坐兜框架 1 的相应位置上各自设有相互可拆卸地配合固定连接的连接件，坐兜框架 1 具有与推车车架配合固定连接的第一位置（图 3 所示位置）或第二位置；

相对于推车车架 2，第一位置水平旋转 180 度后与第二位置重合，即第二位置为第一位置换向后的位置。

[0017] 推车车架 2 和坐兜框架 1 的可拆卸地配合固定连接为卡扣连接方式。

[0018] 参见图 3，推车车架 2 的两相对内侧部对称地各设有一个卡槽 23，卡槽 23 具体位于推把杆 21 与前轮支架 22 的连接处，两个卡槽 23 结构相同。卡槽 23 的前后侧壁对称地开设有卡扣孔（图中未示出）。

[0019] 参见图 1、2 坐兜框架 1 的围框管上设有两个插件 13，插件 13 具体位于上围框 11 和下围框 12 的连接处。两个插件 13 的结构相同。插件 13 的前后侧对称地设有弹性突起 131。弹性突起 131 与卡扣孔的位置向对应。

[0020] 参见图 1、2、3，卡槽 23 与插件 13 之间为卡扣连接。插件 13 插入卡槽 23 内，弹性突起 131 滑入卡扣孔内，从而将坐兜固定安装到推车车架 2 上；按压弹性突起 131 的同时向上顶推（或拔出）插件 13，弹性突起 131 脱离卡扣孔，从而将坐兜从推车车架上拆卸下来。

[0021] 将坐兜拆卸下来后，可将其换向（推车车架 2 相对静止时，将坐兜框架 1 绕重垂线旋转 180 度，将图 3 的第一位置变换为第二位置），两个插件 13 的位置互换后再插入相应的卡槽 23 中，从而实现换向后的坐兜框架 1 与推车车架 2 固定。

[0022] 本实用新型的儿童推车并不局限于上述的实施例，凡根据本实用新型的精神实质所作的等效变化或修饰，都应涵盖在本实用新型的保护范围内。

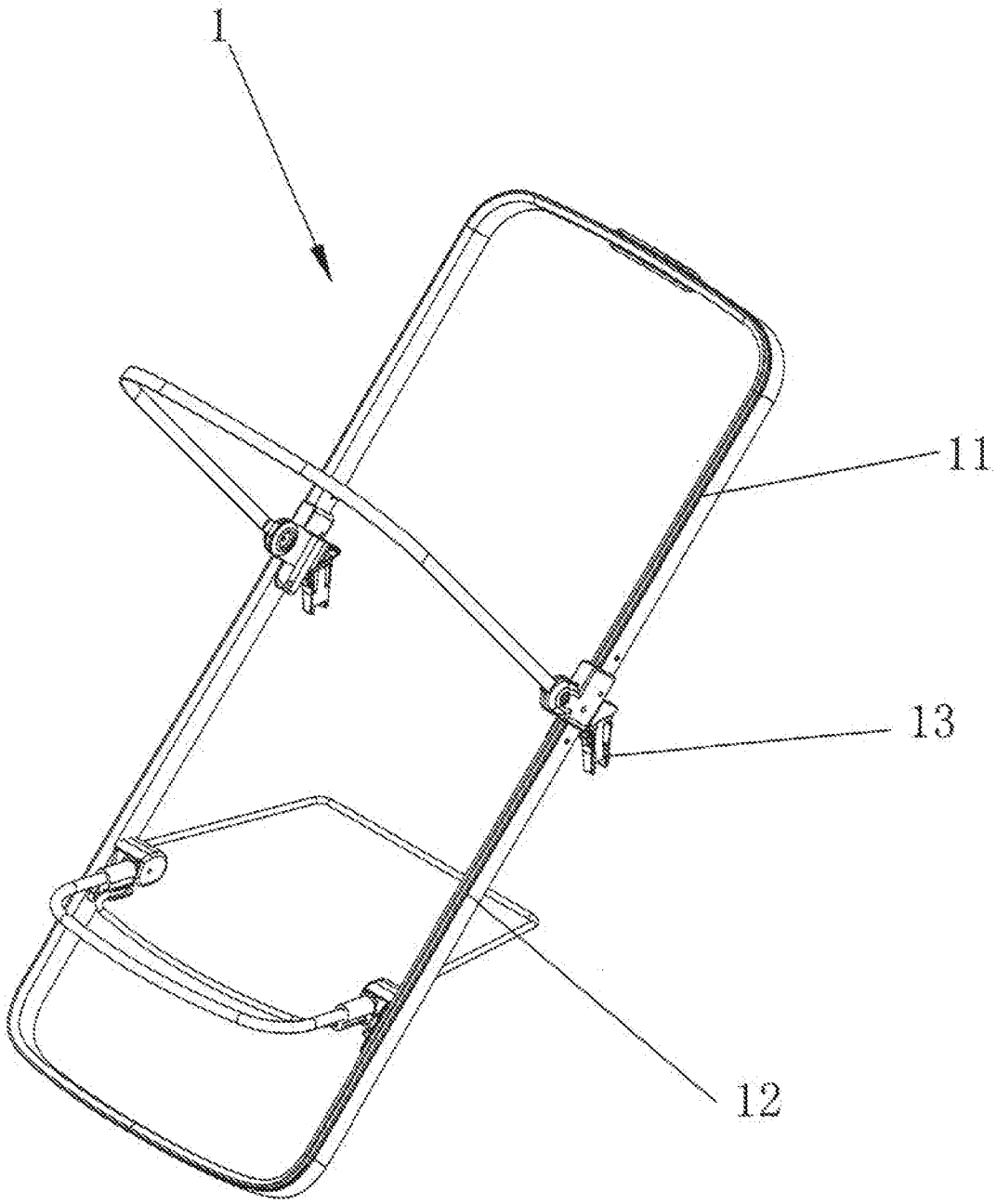



图 1

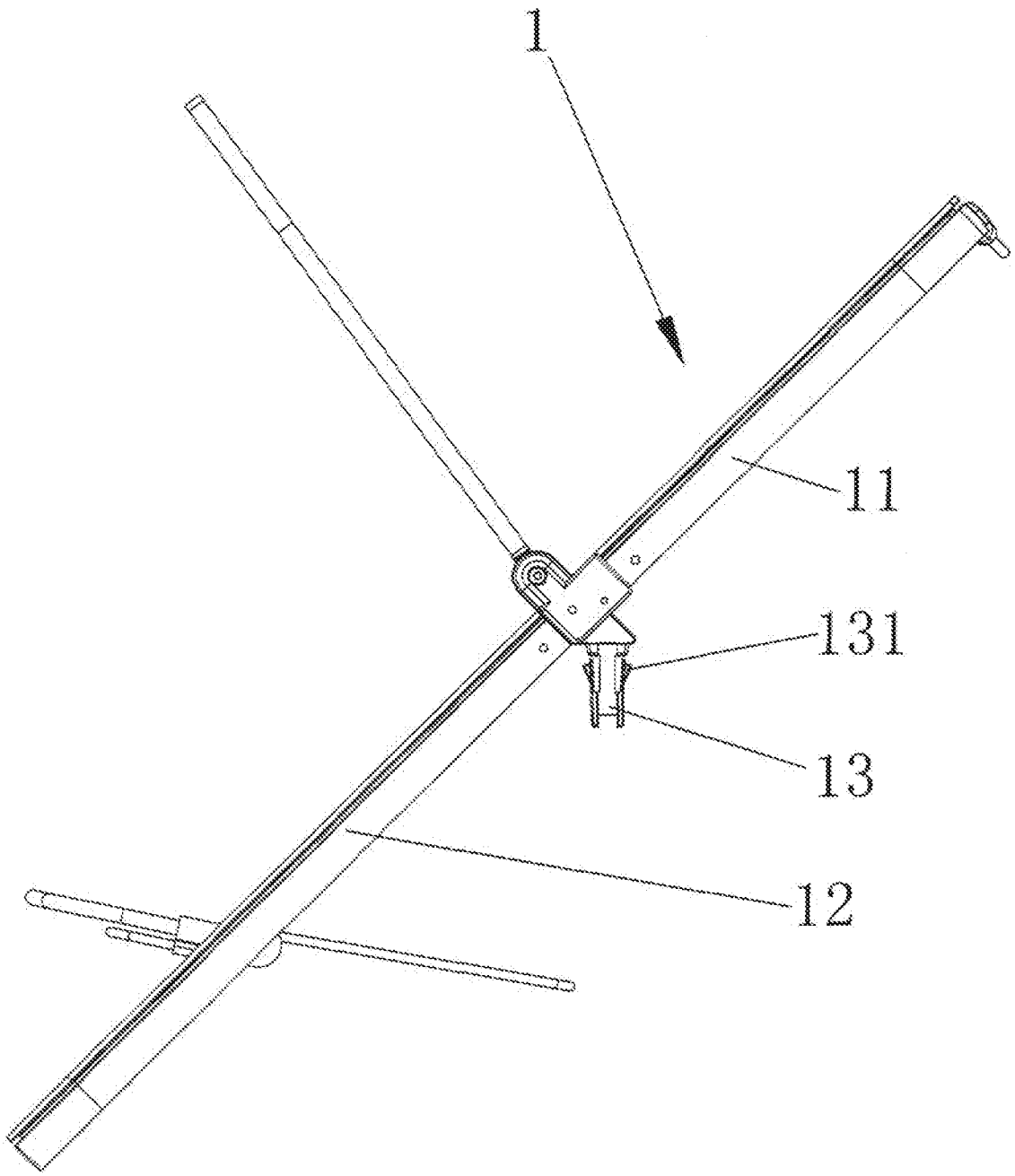



图 2

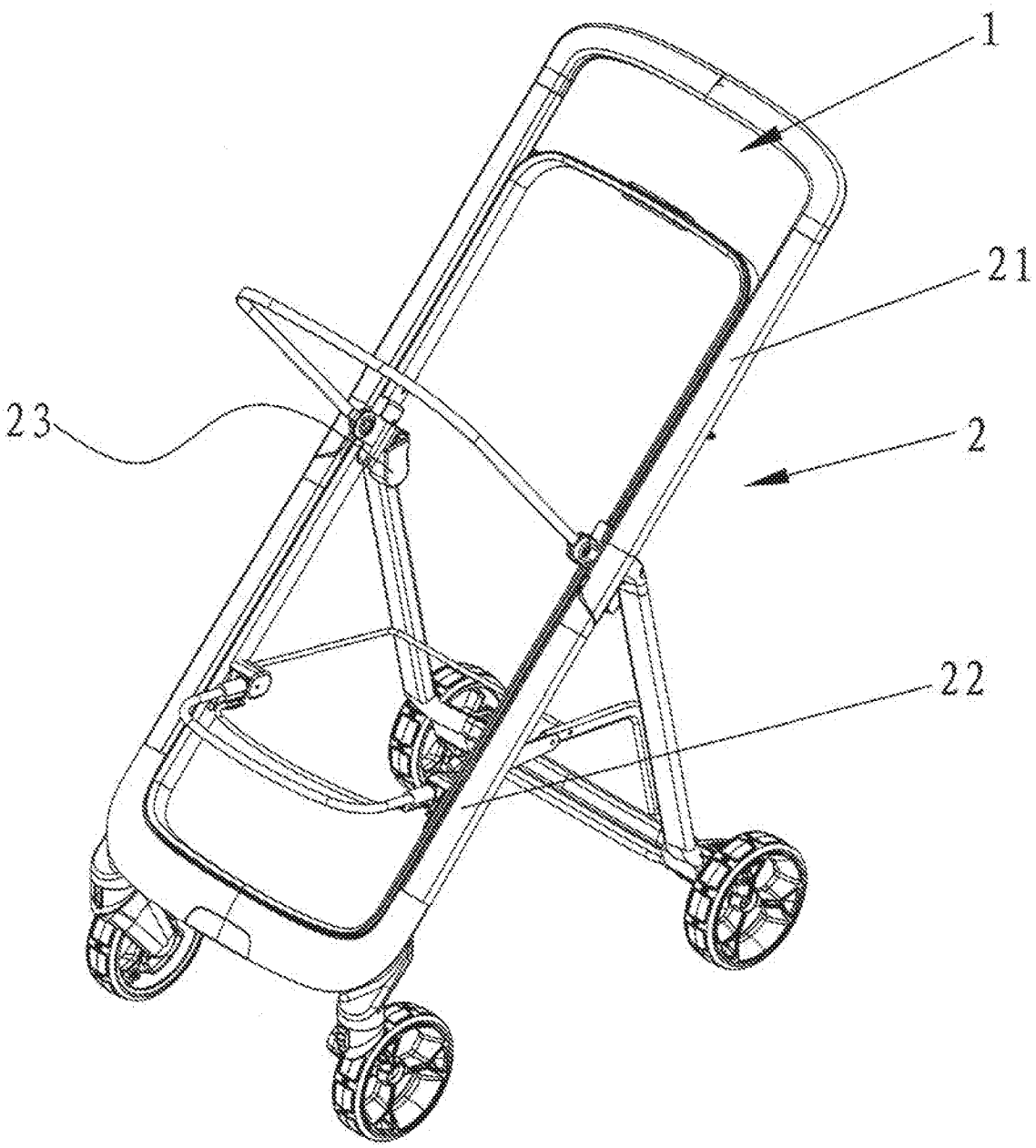



图 3

# Electronic Acknowledgement Receipt

| | |
|---|---|
| **EFS ID:** | 34356229 |
| **Application Number:** | 15912901 |
| **International Application Number:** | |
| **Confirmation Number:** | 8011 |
| **Title of Invention:** | REMOVABLE SEAT ATTACHMENT FOR A STROLLER |
| **First Named Inventor/Applicant Name:** | Jon Hee Lee |
| **Customer Number:** | 134811 |
| **Filer:** | James Michael Hannon |
| **Filer Authorized By:** | |
| **Attorney Docket Number:** | 34757-2184 |
| **Receipt Date:** | 20-NOV-2018 |
| **Filing Date:** | 06-MAR-2018 |
| **Time Stamp:** | 15:20:31 |
| **Application Type:** | Utility under 35 USC 111(a) |

## Payment information:

| | |
|---|---|
| Submitted with Payment | no |

## File Listing:

| Document Number | Document Description | File Name | File Size(Bytes)/ Message Digest | Multi Part /.zip | Pages (if appl.) |
|---|---|---|---|---|---|
| 1 | Transmittal Letter | 34757-2184_IDS_Transmittal.pdf | 115413<br>17535522a301f0e9701e932d810e360ec4e9606d | no | 2 |

**Warnings:**

| | | | | | |
|---|---|---|---|---|---|
| **Information:** | | | | | |
| 2 | Information Disclosure Statement (IDS) Form (SB08) | 34757-2184_IDS.pdf | 1034818<br>e4810b47902a2ba5b03be297a84cbc24dedf4207 | no | 4 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 3 | Non Patent Literature | Chinese_Office_Action.pdf | 3521911<br>55b0c5b542efe2cfe1967e3e6bbcd02b3aeb2de2 | no | 11 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 4 | Foreign Reference | CN102256856A.pdf | 3499499<br>e64504bf86281b46a305f8cadbd7492a1207b4e9 | no | 20 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 5 | Foreign Reference | CN103909960A.pdf | 7876182<br>d8586754e5bc39d4fba5fd7291f0397549c995d8 | no | 47 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 6 | Foreign Reference | CN103921830A.pdf | 3313950<br>805d174a327e155c81ed7c6c30be3eed7091559e | no | 21 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 7 | Foreign Reference | CN201626448U.pdf | 814922<br>ed0789727b10e7a3f42c0e9a146c676f874a9827 | no | 8 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 8 | Foreign Reference | CN201646823U.pdf | 874409<br>2b28cda01f10075b723b4fe4f8606caf6d12f312 | no | 8 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| | | | **Total Files Size (in bytes):** | 21051104 | |

**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | |
|---|---|
| In re Application of: **John Hee Lee *et al.*** | Confirmation No.: **8011** |
| Application No.: **15/912,901** | Art Unit: **3618** |
| Filed: **March 6, 2018** | Examiner: **James M. Dolak** |
| For: **REMOVABLE SEAT ATTACHMENT FOR A STROLLER** | |
| Attorney Docket No.: **34757-2184** | |

## SUBMISSION OF INFORMATION DISCLOSURE STATEMENT

**Via EFS-Web**
Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

The citation of information on the attached form PTO-1449 "Information Disclosure Statement by Applicant" is made pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. A copy of the cited foreign patent and non-patent literature documents is provided herewith.

The citation of information includes Chinese Patent Publication No. 102256856 A, Chinese Patent Publication No. 103909960 A, Chinese Patent Publication No. 103921830 A, Chinese Patent Publication No. 201626448 U, and Chinese Patent Publication No. 201646823 U as well as a Chinese Office Action for Chinese Patent Application No. 201710169826.4 dated October 31, 2018 ("the Chinese Action"). Chinese Patent Publication No. 102256856 A corresponds to U.S. Patent Publication No. 20140333039. Chinese Patent Publication No. 103921830 A corresponds to U.S. Patent Publication No. 20140333039. Each of the U.S. Patent Publications are being cited herein. As such, English language translations of Chinese Patent Publication Nos. 102256856 A and 103921830 A are not being provided herein.

Chinese Patent Publication No. 103909960 A, Chinese Patent Publication No. 201626448 U, Chinese Patent Publication No. 201646823 U, and the Chinese Action (collectively the "Chinese References") are provided herein in their original Chinese language, not in the English language. A formal English-language translation of each of the Chinese References is not being provided with this filing as such translations are not within the possession, custody, or control

Certificate of Transmission

I hereby certify that this correspondence is being transmitted via the U.S. Patent and Trademark Office (USPTO) electronic filing system (EFS-Web) to the USPTO, on **November 20, 2018**.

/James M. Hannon./
James M. Hannon., Reg. No. 48,565

and are not readily available to any individual designated under 37 CFR 1.56(c). A publicly-available English language translation of the abstract for Chinese Patent Publication No. 103909960 A, Chinese Patent Publication No. 201626448 U, and Chinese Publication No. 201646823 U is being provided for the Examiner's reference. However, Applicant makes no guarantee as to the accuracy of these English language abstracts.

Each of the references listed above were cited in the Chinese Action, which is also being submitted herewith. Any description of the relevance of any of these references to the present application is provided in the Chinese Action. No other information about the relevance of these references to the present application is known by the individual designated under 37 CFR 1.56(c).

Pursuant to the Office's waiver of the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003, no copy of any cited U.S. patent or U.S. patent application publication is being provided herewith.

The citation of this information does not constitute an admission that any of the materials are available as a reference or of priority, or a waiver of any right applicant may have under applicable statutes, Rules of Practice in patent cases, or otherwise.

Pursuant to 37 C.F.R. § 1.97(b)(3), Applicants have not submitted herewith a filing fee because this information is being submitted prior to the mailing of the first Office Action on the merits in this case. Thus, no fees are believed due; however, the Commissioner is hereby authorized to charge any additional fees due to Deposit Account No. 19-5029.

Respectfully submitted,

/James M. Hannon/

James M. Hannon
Reg. No. 48,565

Date: **November 20, 2018**
EVERSHEDS SUTHERLAND (US) LLP
999 Peachtree Street NE
Atlanta, Georgia 30309-3996
(404) 853-8013
(404) 853-8806 (fax)
Attorney Docket No.: 34757-2184

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 15/912,901 | 03/06/2018 | Jon Hee Lee | 34757-2184 | 8011 |

134811 7590 01/02/2019

Eversheds Sutherland (US) LLP/NWL
999 Peachtree Street
Suite 2300
Atlanta, GA 30309

| EXAMINER | |
|---|---|
| DOLAK, JAMES M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3618 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 01/02/2019 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@eversheds-sutherland.com

| Office Action Summary | Application No. 15/912,901 | Applicant(s) Lee et al. | |
|---|---|---|---|
| | Examiner JAMES M DOLAK | Art Unit 3618 | AIA Status No |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☑ Responsive to communication(s) filed on 3/06/2018.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims***

5) ☑ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☐ Claim(s) _____ is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☑ Claim(s) 1-20 are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

**Application Papers**

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☑ Other: Restriction requirement.

## DETAILED ACTION

### *Notice of Pre-AIA or AIA Status*

1. The present application is being examined under the pre-AIA first to invent provisions.

### *Election/Restrictions*

2. This application contains claims directed to the following patentably distinct species:

a. **Species A – directed to the embodiment of Fig.1-3 (single stroller with seat attachment);**

b. **Species B – directed to the embodiment of Fig.4 (seat attachment capable of supporting a car seat);**

c. **Species C – directed to the embodiment of Fig.5 (single stroller attached to an embodiment of the attachment in the form of a tricycle-like riding device);**

d. **Species D – directed to the embodiment of Fig.6A-6B (accessory attachment for supporting an accessory on a stroller);**

e. **Species E – directed to the embodiment of Fig.7 (attachment for supporting a seat comprising one wheel);**

f. **Species F – directed to the embodiment of Fig.8A-8H (stroller apparatus capable of being converted from a single seat stroller to a double seat stroller through the use of removable seat attachment adapters);**

g. **Species G – directed to the embodiment of Fig.9&10 (double seat stroller with two removable seat attachment adapters 84 for first seat and separate upper second seat attachment portion);**

h. **Species H – directed to the embodiment of Fig.11-13C (stroller with seat attachment housing according to one example embodiment of the disclosure and removable seat attachment adapter removably coupled to the seat attachment housing according to one example embodiment of the disclosure);**

i. **Species I – directed to the embodiment of Fig.14A-C (an alternative embodiment of the seat attachment housing according to another example embodiment of the disclosure).**

3. The species are independent or distinct because each of Species A-I are directed to a various different strollers and/or stroller attachments. The related inventions are distinct if: (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed are materially different in design. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, or a single grouping of patentably indistinct species, for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently,

as best understood, no claims appear generic. However, Applicant is advised to also determine whether any of the claims appear generic to all of the above species.

There is a search and/or examination burden for the patentably distinct species as set forth above because at least the following reason(s) apply: the species of patentably distinct inventions require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search strategies or search queries).

**Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or a grouping of patentably indistinct species to be examined** even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected species or grouping of patentably indistinct species**, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species or grouping of patentably indistinct species.

Should applicant traverse on the ground that the species, or groupings of patentably indistinct species from which election is required, are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing them to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M DOLAK whose telephone number is (571)270-7757. The examiner can normally be reached on 9-530 EST Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J ALLEN SHRIVER can be reached on 303-297-4337. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES M DOLAK/
Primary Examiner, Art Unit 3618

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| PATENT APPLICATION FEE DETERMINATION RECORD<br>Substitute for Form PTO-875 | Application or Docket Number<br>15/912,901 | Filing Date<br>03/06/2018 | ☐ To be Mailed |
|---|---|---|---|

**ENTITY:** ☑ LARGE ☐ SMALL ☐ MICRO

## APPLICATION AS FILED - PART I

| FOR | (Column 1)<br>NUMBER FILED | (Column 2)<br>NUMBER EXTRA | | RATE ($) | FEE ($) |
|---|---|---|---|---|---|
| ☐ BASIC FEE<br>(37 CFR 1.16(a), (b), or (c)) | N/A | N/A | | N/A | |
| ☐ SEARCH FEE<br>(37 CFR 1.16(k), (i), or (m)) | N/A | N/A | | N/A | |
| ☐ EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q)) | N/A | N/A | | N/A | |
| TOTAL CLAIMS<br>(37 CFR 1.16(i)) | minus 20 = | * | | x $100 = | |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h)) | minus 3 = | * | | x $460 = | |
| ☐ APPLICATION SIZE FEE (37 CFR 1.16(s)) | If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). | | | | |
| ☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) | | | | | |
| * If the difference in column 1 is less than zero, enter "0" in column 2. | | | | TOTAL | |

## APPLICATION AS AMENDED - PART II

| | | (Column 1) | | (Column 2) | (Column 3) | | | |
|---|---|---|---|---|---|---|---|---|
| AMENDMENT | 03/11/2019 | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | | RATE ($) | ADDITIONAL FEE ($) |
| | Total<br>(37 CFR 1.16(i)) | * 17 | Minus | ** 20 | = 0 | | x $100 = | 0 |
| | Independent<br>(37 CFR 1.16(h)) | * 3 | Minus | *** 3 | = 0 | | x $460 = | 0 |
| | ☐ Application Size Fee (37 CFR 1.16(s)) | | | | | | | |
| | ☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) | | | | | | | |
| | | | | | | | TOTAL ADD'L FEE | 0 |

| | | (Column 1) | | (Column 2) | (Column 3) | | | |
|---|---|---|---|---|---|---|---|---|
| AMENDMENT | | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | | RATE ($) | ADDITIONAL FEE ($) |
| | Total<br>(37 CFR 1.16(i)) | * | Minus | ** | = | | x $0 = | |
| | Independent<br>(37 CFR 1.16(h)) | * | Minus | *** | = | | x $0 = | |
| | ☐ Application Size Fee (37 CFR 1.16(s)) | | | | | | | |
| | ☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) | | | | | | | |
| | | | | | | | TOTAL ADD'L FEE | |

| | |
|---|---|
| * If the entry in column 1 is less than the entry in column 2, write "0" in column 3. | HSLIE |
| ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". | /LELAND WATKINS/ |
| *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". | |
| The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1. | |

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | |
|---|---|---|
| In re Application of: | ) | |
| | ) | |
| **John Hee Lee, et al.** | ) | Confirmation No.: **8011** |
| | ) | |
| Application No.: **15/912,901** | ) | Art Unit: **3618** |
| | ) | |
| Filed: **March 6, 2018** | ) | Examiner: **James M. Dolak** |
| | ) | |
| For: **Removable Seat Attachment for a Stroller** | ) | |
| | ) | |
| | ) | |
| | ) | |

## RESPONSE TO SPECIES RESTRICTION REQUIREMENT

**Via EFS-Web**
**Mail Stop Amendment**
Commissioner for Patents
Alexandria, VA 22313-1450

Dear Examiner Dolak:

This Response is submitted in response to the Species Restriction Requirement with a Notification Date of January 2, 2019. In light of the amendments and remarks included herein, it is respectfully asserted that all pending claims are patentable, and it is respectfully requested that this application be allowed.

**Amendments to the Claims** are reflected in the listing of claims, which begins on page 2 of this paper.

**Remarks** begin on page 7 of this paper.

I hereby certify that this correspondence is being electronically filed via EFS-WEB to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Attn: Examiner Dolak, GAU 3618, on March 11, 2019.

/James M. Hannon/
James M. Hannon
Reg. No. 48,565

# Electronic Patent Application Fee Transmittal

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|---|---|
| **Application Number:** | 15912901 |
| **Filing Date:** | 06-Mar-2018 |
| **Title of Invention:** | REMOVABLE SEAT ATTACHMENT FOR A STROLLER |
| **First Named Inventor/Applicant Name:** | Jon Hee Lee |
| **Filer:** | James Michael Hannon |
| **Attorney Docket Number:** | 34757-2184 |

Filed as Large Entity

**Filing Fees for Utility under 35 USC 111(a)**

| Description | Fee Code | Quantity | Amount | Sub-Total in USD($) |
|---|---|---|---|---|
| **Basic Filing:** | | | | |
| **Pages:** | | | | |
| **Claims:** | | | | |
| **Miscellaneous-Filing:** | | | | |
| **Petition:** | | | | |
| **Patent-Appeals-and-Interference:** | | | | |
| **Post-Allowance-and-Post-Issuance:** | | | | |
| **Extension-of-Time:** | | | | |

| Description | Fee Code | Quantity | Amount | Sub-Total in USD($) |
|---|---|---|---|---|
| Extension - 1 month with $0 paid | 1251 | 1 | 200 | 200 |
| **Miscellaneous:** | | | | |
| | | | **Total in USD ($)** | **200** |

# Electronic Acknowledgement Receipt

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| **EFS ID:** | 35380279 |
| **Application Number:** | 15912901 |
| **International Application Number:** | |
| **Confirmation Number:** | 8011 |
| **Title of Invention:** | REMOVABLE SEAT ATTACHMENT FOR A STROLLER |
| **First Named Inventor/Applicant Name:** | Jon Hee Lee |
| **Customer Number:** | 134811 |
| **Filer:** | James Michael Hannon |
| **Filer Authorized By:** | |
| **Attorney Docket Number:** | 34757-2184 |
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| **Filing Date:** | 06-MAR-2018 |
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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.21 (Miscellaneous fees and charges)

## File Listing:

| Document Number | Document Description | File Name | File Size(Bytes)/ Message Digest | Multi Part /.zip | Pages (if appl.) |
|---|---|---|---|---|---|
| 1 | | 34757-2184_Response_to_Restriction_Requirement.pdf | 121688<br>7dca63fa93591e89adeff330fa8b23c5de8e4f08 | yes | 8 |

| | Multipart Description/PDF files in .zip description | | |
|---|---|---|---|
| | **Document Description** | **Start** | **End** |
| | Applicant Arguments/Remarks Made in an Amendment | 7 | 8 |
| | Claims | 2 | 6 |
| | Response to Election / Restriction Filed | 1 | 1 |

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|---|---|---|---|---|---|
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 2 | Fee Worksheet (SB06) | fee-info.pdf | 30490<br>ae10aeb9ee68cc661da852bd622fc00577df3de7 | no | 2 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| | | | **Total Files Size (in bytes):** | 152178 | |

**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**

## REMARKS

Claims 1-20 were subject to a species restriction imposed in the Office Action on January 2, 2019. Claim 1-4, 6, 11, 14, and 18 have been amended herein. Claims 5, 13, and 20 have been canceled herein without prejudice to or disclaimer of the subject matter therein. No claims have been added herein. The amendments to the claims are supported by the specification and drawings as filed. No new matter is introduced by way of these amendments.

### I. Species Restriction Requirement

The Examiner has identified the following species based on the figures as follows:

**Species A:** Figures 1-3, single stroller with seat attachment;

**Species B:** Figure 4, seat attachment capable of supporting a car seat;

**Species C:** Figure 5, single stroller attached to an embodiment of the attachment in the form of a tricycle-like riding device;

**Species D:** Figures 6A-6B, accessory attachment for supporting an accessory on a stroller;

**Species E:** Figure 7, attachment for supporting a seat comprising one wheel;

**Species F:** Figures 8A-8H, stroller apparatus capable of being converted from a single seat stroller to a double seat stroller through the use of removable seat attachment adapters;

**Species G:** Figures 9-10, double seat stroller with two removable seat attachment adapters 84 for first seat and separate upper second seat attachment portion;

**Species H:** Figures 11-13C, stroller with seat attachment housing according to one example embodiment of the disclosure and removable seat attachment adapter removably couples to the seat attachment housing according to one example embodiment of the disclosure; and

**Species I:** Figures 14A-C, an alternative embodiment on the seat attachment housing according to another example.

A. Election of Species

Applicant elects, without traverse, Species F, Figures 8A-8H. Claims 1-4, 6-12, and 14-19 are at least directed to Species F.

Applicant reserves the right to file a divisional application directed to any unelected species at a later date if so desired. Upon entry of this response, claims 1-4, 6-12, and 14-19

remain pending and not withdrawn in this application with claims 1, 14, and 18 being the independent claims.

## CONCLUSION

The foregoing is submitted as a full and complete response to the Species Restriction Requirement with a Notification Date of January 2, 2019. Applicant and the undersigned thank Examiner Dolak for the consideration of these amendments and remarks. Applicant has made a proper election in response to the Examiner's restriction requirement. Examination of claims 1-4, 6-12, and 14-19 is hereby courteously solicited.

It is not believed that extensions of time or fees for addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 19-5029.

If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any formalities that can be corrected by an Examiner's amendment, please contact the undersigned in the Atlanta Metropolitan Area at 404-853-8013.

Respectfully submitted,

**/James M. Hannon/**

James M. Hannon
Reg. No. 48,565

DATE: **March 11, 2019**
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Attorney Docket No.: **34757-2184**

## AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. This listing of claims will replace all prior versions and listing of claims for this application.

1. (Currently Amended) 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 adapter~~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 adapter~~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~~first~~ seat ~~attachment adapter~~ is configured to be removably coupled to the first seat attachment adapter and the~~housing and wherein a~~ second seat attachment adapter ~~is configured to be removably coupled to the second seat attachment housing~~.

2. (Currently Amended) The stroller of claim 1, further comprising:

the first seat attachment adapter ~~removably~~movably coupled to the stroller frame~~first seat attachment housing~~; and

the second seat attachment adapter ~~removably~~movably coupled to the stroller frame~~second seat attachment housing~~.

3. (Currently Amended) The stroller of claim 2, further comprising [[a]]the second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter.

4. (Currently Amended) The stroller of claim [[2]]1, wherein each of the first seat attachment adapter and the second seat attachment adapter has a first end and a distal second end.

5. (Canceled)

6. (Currently Amended) The stroller of claim 4, wherein the second end is releasably connected to [[a]]the second seat.

7. (Original) 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.

8. (Original) 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.

9. (Original) The stroller of claim 1, wherein the second vertical position and the third vertical position are at a same vertical height.

10. (Original) The stroller of claim 1, wherein the stroller frame comprises:

a first upper tube support frame;

a second upper tube support frame;

a first front wheel support frame configured to rotate with respect to the first upper tube support frame;

a second front wheel support frame configured to rotate with respect to the second upper tube support frame;

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

a second back wheel support frame configured to rotate with respect to the second upper tube support frame.

11. (Currently Amended) 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 adapter~~housing~~ is coupled to the first front wheel support frame, and wherein the second seat attachment adapter~~housing~~ is coupled to the second front wheel support frame.

12. (Original) The stroller of claim 10, further comprising a handle comprising a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame.

13. (Canceled)

14. (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 configured to rotate with respect to the first upper tube support frame;

a second front wheel support frame configured to rotate with respect to the second upper tube support frame;

at least one back wheel support frame; and

a stroller handle provided along an end of the first upper tube support frame and the second upper tube support frame;

a first front wheel operably coupled to the first front wheel support frame;

a second front wheel operably coupled to the second front wheel support frame;

a plurality of back wheels operably coupled to the at least one back wheel support frame;

a first seat operably coupled along the first upper tube support frame and the second upper tube support frame and configured to hold a first child in the stroller;

a first seat attachment adapter~~housing~~ coupled to the first front wheel support frame;

a second seat attachment adapter ~~housing~~ coupled to the second front wheel support frame; and

~~a first seat attachment adapter removably coupled to the first seat attachment housing;~~

~~a second seat attachment adapter removably coupled to the second seat attachment housing; and~~

a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter and configured to hold a second child in the stroller.

15. (Original) The stroller of claim 14, 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.

16. (Original) The stroller of claim 14, wherein the first seat is removably coupled along the stroller frame.

17. (Original) The stroller of claim 14, further comprising:

a third seat attachment adapter coupled to the first upper tube support frame; and

a fourth seat attachment adapter coupled to the second upper tube support frame;

wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter.

18. (Currently Amended) A stroller, comprising:

a stroller frame comprising:

a first upper tube support frame;

a second upper tube support frame;

a front wheel support frame configured to rotate with respect to the first upper tube support frame and the second upper tube support frame;

at least one back wheel support frame; and

a stroller handle provided along an end of the first upper tube support frame and an end of the second upper tube support frame;

at least one front wheel operably coupled to the front wheel support frame;

at least one back wheel operably coupled to the at least one back wheel support frame;

a first seat attachment adapter~~housing~~ coupled to the front wheel support frame;

a second seat attachment adapter~~housing~~ coupled to the front wheel support frame;

~~a first seat attachment adapter removably coupled to the first seat attachment housing;~~

~~a second seat attachment adapter removably coupled to the second seat attachment housing;~~

a third seat attachment adapter coupled to the first upper tube support frame;

a fourth seat attachment adapter coupled to the second upper tube support frame;

a first seat removably coupled along the third seat attachment adapter and the fourth seat attachment adapter and configured to hold a first child in the stroller; and

a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter and configured to hold a second child in the stroller.

19. (Original) The stroller of claim 18, wherein the at least one back wheel support frame is rotatable with respect to the first upper tube support frame and the second upper tube support frame.

20. (Canceled)

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 15/912,901 | 03/06/2018 | Jon Hee Lee | 34757-2184 | 8011 |

134811 7590 05/02/2019

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999 Peachtree Street
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| EXAMINER | |
|---|---|
| DOLAK, JAMES M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3618 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 05/02/2019 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@eversheds-sutherland.com

| Office Action Summary | Application No. 15/912,901 | Applicant(s) Lee et al. | |
|---|---|---|---|
| | Examiner JAMES M DOLAK | Art Unit 3618 | AIA (FITF) Status No |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☑ Responsive to communication(s) filed on 3/11/2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims***

5) ☑ Claim(s) 1-4,6-12 and 14-19 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-4,6-12 and 14-19 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☑ Claim(s) 1-4,6-12 and 14-19 are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

**Application Papers**

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 3/06/2018 is/are: a)☐ accepted or b)☑ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

## DETAILED ACTION

### *Notice of Pre-AIA or AIA Status*

1. The present application is being examined under the pre-AIA first to invent provisions.

### *Response to Amendment*

2. The reply filed on 3/11/2019 cancelled claims 5, 13, and 20, and amended claims 1-4, 6, 11, and 18. Claims 1-4, 6-12, 14-19 are currently pending herein.

### *Election/Restrictions*

3. Applicant's election without traverse of Species F (Fig.8A-H) in the reply filed on 3/11/2019 is acknowledged.

### *Information Disclosure Statement*

4. The information disclosure statement (IDS) submitted on 6/29/2018 and 11/20/2018 were filed in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

5. Applicant is advised that the M.P.E.P. states the following with respect to large information disclosure statements (such as the one filed 6/29/2018): Although a concise explanation of the relevance of information is not required for English language information, applicants are encouraged to provide a concise explanation of why the English-language information is being submitted. Concise explanations (especially those that point out the relevant pages and lines) are helpful to the Office, particularly where documents are lengthy and complex and applicant is aware of a section that is highly relevant to patentability or where a large number of documents are submitted and applicant is aware that one or more is highly relevant to patentability (M.P.E.P. § 609)

6. Therefore it is recommended that if any information that has been cited by Applicant in the disclosure statement is known to be material for patentability as defined by 37 CFR 1.56, Applicant should present a concise statement as to the relevance of that/those particular documents therein cited. The references cited by applicants in the IDS and listed on the numerous 1449s have been made of record.

7. While the statements filed clearly do not comply with the guidelines set forth in MPEP 2004 regarding both the number of references cited and the elimination of clearly irrelevant art and marginally cumulative information, compliance with these guidelines is not mandatory. Furthermore, 37 CFR 1.97 and 1.98 do not require that the information be material, rather they allow for submission of information regardless of its pertinence to the claimed invention. Also, there is no requirement to explain the materiality of the submitted references, however, the cloaking of a clearly relevant reference by inclusion in a long list of citations may not comply with Applicant's duty of disclosure, see Penn Yan Boats, Inc. V. Sea Lark boats Inc., 359 F. Supp. 948, aff'd 479 F. 2d. 1338.

***Drawings***

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 “first end” and “distal second end” (Claim 12) and similarly in relation to the handle element “an end” (Claim 14/18) must all be shown and labeled or the feature(s) canceled from the claim(s). 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.

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of 35 U.S.C. 112(b):

> (b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

> The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-4, 6-12, and 14-19 rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention. Regarding the claims, each claim recites a version of the open-ended clauses "configured to be removably coupled" (Claim 1, line 7 & 9), "configured to receive" (Claim 2, line 3), "configured to move" (Claim 2, line 6),

"configured to rotate" (Claim 4, line 2), etc., which renders the claims indefinite, since it's not clear whether the claimed "coupling/receiving/moving" is actually taking place or not. It has been held that the open-ended recitations stating that an element is capable to perform a function (e.g., "configured to", "adapted to", etc.) are not the positive limitations but only require the ability to so perform. They do not constitute a limitation in any patentable sense. See In re Hutchinson, 69 USPQ 138. Just because something is "configured to" do something (i.e. is "capable of" doing something), doesn't actually mean it does it. "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v.Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original). The Office hereby notes that "configured to" does not explicitly denote how features(s) are constructed and/or associated with other claimed limitations; whereas the claim is amenable to two or more plausible claim constructions. If a claim is amenable to two or more plausible claim constructions, then the claim may be deemed indefinite. See Ex parte Miyazaki, 89 USPQ2d 1207 (Bd. Pat. App. & Inter. 2008) (precedential). Applicant is required to use definitive and positive statements while reciting the structure and functions of the claimed apparatus (e.g. "a locking arm chamfer [that is configured to engage] --engaging-- the lock pin chamfer"). Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. **Claims 1-4, and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheng (US 7,475,900 B2)**.

**[Claim 1]** Regarding Claim 1, Cheng discloses: A stroller (See, e.g., Fig. 4-8), comprising:

a stroller frame (See, e.g., Fig. 4-8, 3+4+5+10+etc.);

a plurality of wheels (See, e.g., Fig. 4-8, 33+34) comprising at least one front wheel (See, e.g., Fig. 4-8, 33) and a plurality of back wheels (See, e.g., Fig. 4-8, 34);

a first seat (See, e.g., Fig. 4-8, 72) coupled to the stroller frame at a first vertical position of the stroller frame (See, e.g., Fig. 4-8) and configured to hold a first child in the stroller (See, e.g., Fig. 4-8);

a first seat attachment adapter (See, e.g., Fig. 4-8, 71+410) coupled to the stroller frame at a second vertical position of the stroller frame (See, e.g., Fig. 4-8) that is below the first vertical position (See, e.g., Fig. 4-8);

a second seat attachment adapter (See, e.g., Fig. 4-8, 72+420) coupled to the stroller frame at a third vertical position of the stroller frame (See, e.g., Fig. 4-8) that is below the first vertical position (See, e.g., Fig. 4-8);

wherein a second seat (See, e.g., Fig. 4-8, 71) is configured to be removably coupled to the first seat attachment adapter (See, e.g., Fig. 4-8) and the second seat attachment adapter (See, e.g., Fig. 4-8).

**[Claim 2]** Regarding Claim 2, Cheng further discloses: further comprising: the first seat attachment adapter movably coupled to the stroller frame (See, e.g., Fig. 4-8, 71+410); and the second seat attachment adapter movably coupled to the stroller frame (See, e.g., Fig. 4-8, 71+410).

**[Claim 3]** Regarding Claim 3, Cheng further discloses: further comprising the second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter (See, e.g., Fig. 4-8).

**[Claim 4]** Regarding Claim 4, Cheng further discloses: wherein each of the first seat attachment adapter and the second seat attachment adapter has a first end and a distal second end (See, e.g., Fig. 4-8, 71+420).

**[Claim 7]** Regarding Claim 7, Cheng further discloses: wherein the first seat is one of a baby seat, a car seat, a stroller seat, a bassinet, a baby carrier, or a pram (See, e.g., Fig. 4-8, 71) 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 (See, e.g., Fig. 4-8, 72).

**[Claim 8]** Regarding Claim 8, Cheng further discloses: further comprising: a third seat attachment adapter (See, e.g., Fig. 4-8, 71+410) coupled to the stroller frame at the first vertical position (See, e.g., Fig. 4-8); and a fourth seat attachment adapter (See, e.g., Fig. 4-8, 72+420) coupled to the stroller frame at the first vertical position (See, e.g., Fig. 4-8); wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter (See, e.g., Fig. 4-8).

**[Claim 9]** Regarding Claim 9, Cheng further discloses: wherein the second vertical position and the third vertical position are at a same vertical height (See, e.g., Fig. 4-8).

**[Claim 10]** Regarding Claim 10, Cheng further discloses: wherein the stroller frame comprises:

a first upper tube support frame (See, e.g., Fig. 4-8, 411+421);

a second upper tube support frame (See, e.g., Fig. 4-8, 411+421);

a first front wheel support frame (See, e.g., Fig. 4-8, 31) configured to rotate with respect to the first upper tube support frame (See, e.g., Fig. 4-8);

a second front wheel support frame (See, e.g., Fig. 4-8, 31) configured to rotate with respect to the second upper tube support frame (See, e.g., Fig. 4-8);

a first back wheel support frame (See, e.g., Fig. 4-8, 32) configured to rotate with respect to the first upper tube support frame (See, e.g., Fig. 4-8); and

a second back wheel support frame (See, e.g., Fig. 4-8, 32) configured to rotate with respect to the second upper tube support frame (See, e.g., Fig. 4-8).

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under pre-AIA 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. This application currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of pre-AIA 35 U.S.C. 103(c) and potential pre-AIA 35 U.S.C. 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. 103(a).

16. **Claim 6 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Cheng and further in view of Cone, II al. (US 6,286,844 B1)**.

**[Claim 6]** Regarding Claim 6, Cheng fails to explicitly teach: wherein the second end is releasably connected to the second seat.

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 left/right seat attachment adapters (See, e.g., Cone: Fig.1-13, 250) that are releasably connected to a seat (See, e.g., Cone: Fig.1-13, 12).

Cone teaches that it is well known in the art of stroller seat design to provide a seat attachment adapters that releasably connect to a seat and a stroller frame. 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 a seat attachment adapter that is also releasably connected to the seat 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)).

17. **Claims 11 & 12 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Cheng and further in view of Liao (US D593,459 S)**

**[Claim 11]** Regarding Claim 11, Cheng further discloses: wherein the first seat is coupled along the first upper tube support frame and the second upper tube support frame (See, e.g., Fig. 4-8).

Cheng fails to explicitly teach: wherein the first seat attachment adapter is coupled to the first front wheel support frame, and wherein the second seat attachment adapter is coupled to the second front wheel support frame.

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)).

**[Claim 12]** Regarding Claim 12, Cheng further discloses: further comprising a handle (See, e.g., Fig. 4-8, 10) comprising a first and a distal second end coupled to the frame (See, e.g., Fig. 4-8).

Cheng fails to explicitly teach: wherein the handle first end is coupled to the first upper tube support frame and a distal second end is coupled to the second upper tube support frame.

However, Liao teaches a similar stroller with seat attachments (See, e.g., Liao: Fig.1-13) with a handle (See, e.g., Liao: Fig.1-13) comprising a first end coupled to a first upper tube support frame (See, e.g., Liao: Fig.1-13) and a distal second end coupled to a second upper tube 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 a handle coupled to upper tube support frames where the second seat is mounted. 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 handle coupled to the upper tube support frames such as taught by Liao, for the purpose of conveniently and beneficially allowing a user to push the stroller from a position where the handle adds the greatest mechanical advantage to the system thereby not requiring a parent to struggle to move 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)).

18. **Claims 14-19 rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Cheng and further in view of Cone, II al. (US 6,286,844 B1)**

**[Claim 14]** Regarding Claim 14, Cheng discloses: A stroller (See, e.g., Fig. 4-8), comprising:

a stroller frame (See, e.g., Fig. 4-8, 3+4+5+10+etc.);

a first upper tube support frame (See, e.g., Cheng: Fig. 4-8, 411+421);

a second upper tube support frame (See, e.g., Cheng: Fig. 4-8, 411+421);

a first front wheel support frame (See, e.g., Cheng: Fig. 4-8, 31) configured to rotate with respect to the first upper tube support frame (See, e.g., Cheng: Fig. 4-8);

a second front wheel support frame (See, e.g., Cheng: Fig. 4-8, 31) configured to rotate with respect to the second upper tube support frame (See, e.g., Cheng: Fig. 4-8);

at least one back wheel support frame (See, e.g., Cheng: Fig. 4-8, 32); and

a stroller handle (See, e.g., Cheng: Fig. 4-8, 10) provided along an end of the frame (See, e.g., Cheng: Fig. 4-8);

a first front wheel (See, e.g., Cheng: Fig. 4-8, 33) operably coupled to the first front wheel support frame (See, e.g., Cheng: Fig. 4-8);

a second front wheel (See, e.g., Cheng: Fig. 4-8, 33) operably coupled to the second front wheel support frame (See, e.g., Cheng: Fig. 4-8);

a plurality of back wheels (See, e.g., Cheng: Fig. 4-8, 34) operably coupled to the at least one back wheel support frame (See, e.g., Cheng: Fig. 4-8);

a first seat (See, e.g., Cheng: Fig. 4-8, 72) operably coupled along the first upper tube support frame and the second upper tube support frame (See, e.g., Cheng: Fig. 4-8) and configured to hold a first child in the stroller (See, e.g., Cheng: Fig. 4-8);

a first seat attachment adapter (See, e.g., Cheng: Fig. 4-8, 410) coupled to the frame (See, e.g., Cheng: Fig. 4-8);

a second seat attachment adapter (See, e.g., Cheng: Fig. 4-8, 410) coupled to the frame (See, e.g., Cheng: Fig. 4-8); and

a second seat (See, e.g., Cheng: Fig. 4-8, 71) removably coupled to the first seat attachment adapter and the second seat attachment adapter (See, e.g., Cheng: Fig. 4-8) and configured to hold a second child in the stroller (See, e.g., Cheng: Fig. 4-8).

Cheng fails to explicitly teach: a first seat attachment adapter coupled to the front wheel support frame; a second seat attachment adapter coupled to the front wheel support frame; and wherein the stroller handle is provided along an end of the first upper tube support frame and an end of the second upper tube support frame.

However, Liao teaches a similar stroller with seat attachments (See, e.g., Liao: Fig.1-13) wherein a first seat attachment adapter is coupled to the front wheel support frame (See, e.g., Liao: Fig.1-13), and a second seat attachment adapter is coupled to the front wheel support frame (See, e.g., Liao: Fig.1-13) and a handle (See, e.g., Liao: Fig.1-13) is provided along an end of a first upper tube support frame and an end of a second upper tube 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 and to provide a handle coupled to upper tube support frames where the second seat is

mounted. 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, and further modified with the handle coupled to the upper tube support frames such as taught by Liao, for the purpose of conveniently and beneficially allowing a user to push the stroller from a position where the handle adds the greatest mechanical advantage to the system thereby not requiring a parent to struggle to move 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)).

**[Claim 15]** Regarding Claim 15, the combination of Cheng in view of Liao further teaches: wherein the first seat is one of a baby seat, a car seat, a stroller seat, a bassinet, a baby carrier, or a pram (See, e.g., Cheng: Fig. 4-8, 71) 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 (See, e.g., Cheng: Fig. 4-8, 72).

**[Claim 16]** Regarding Claim 16, the combination of Cheng in view of Liao further teaches: wherein the first seat is removably coupled along the stroller frame (See, e.g., Cheng: Fig. 4-8).

**[Claim 17]** Regarding Claim 17, the combination of Cheng in view of Liao further teaches: further comprising: a third seat attachment adapter (See, e.g., Cheng: Fig. 4-8, 420) coupled to the first upper tube support frame (See, e.g., Cheng: Fig. 4-8); and

a fourth seat attachment adapter (See, e.g., Cheng: Fig. 4-8, 420) coupled to the second upper tube support frame (See, e.g., Cheng: Fig. 4-8);

wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter (See, e.g., Cheng: Fig. 4-8).

**[Claim 18]** Regarding Claim 18, Cheng teaches: A stroller (See, e.g., Fig. 4-8), comprising:

a stroller frame (See, e.g., Fig. 4-8, 3+4+5+10+etc.);

a first upper tube support frame (See, e.g., Cheng: Fig. 4-8, 411+421);

a second upper tube support frame (See, e.g., Cheng: Fig. 4-8, 411+421);

a front wheel support frame (See, e.g., Cheng: Fig. 4-8, 31) configured to rotate with respect to the first upper tube support frame and the second upper tube support frame (See, e.g., Cheng: Fig. 4-8);

at least one back wheel support frame (See, e.g., Cheng: Fig. 4-8, 32); and

a stroller handle (See, e.g., Cheng: Fig. 4-8, 10) provided along an end of the frame (See, e.g., Cheng: Fig. 4-8);

at least one front wheel (See, e.g., Cheng: Fig. 4-8, 33) operably coupled to the front wheel support frame (See, e.g., Cheng: Fig. 4-8);

at least one back wheel (See, e.g., Cheng: Fig. 4-8, 34) operably coupled to the at least one back wheel support frame (See, e.g., Cheng: Fig. 4-8);

a first seat attachment adapter (See, e.g., Cheng: Fig. 4-8, 410) coupled to the frame (See, e.g., Cheng: Fig. 4-8);

a second seat attachment adapter (See, e.g., Cheng: Fig. 4-8, 410) coupled to the frame;

a third seat attachment adapter (See, e.g., Cheng: Fig. 4-8, 420) coupled to the first upper tube support frame (See, e.g., Cheng: Fig. 4-8);

a fourth seat attachment adapter (See, e.g., Cheng: Fig. 4-8, 420) coupled to the second upper tube support frame (See, e.g., Cheng: Fig. 4-8);

a first seat (See, e.g., Cheng: Fig. 4-8, 72) removably coupled along the third seat attachment adapter and the fourth seat attachment adapter (See, e.g., Cheng: Fig. 4-8) and configured to hold a first child in the stroller (See, e.g., Cheng: Fig. 4-8); and

a second seat (See, e.g., Cheng: Fig. 4-8, 71) removably coupled to the first seat attachment adapter and the second seat attachment adapter (See, e.g., Cheng: Fig. 4-8) and configured to hold a second child in the stroller (See, e.g., Cheng: Fig. 4-8).

Cheng fails to explicitly teach: a first seat attachment adapter coupled to the front wheel support frame; a second seat attachment adapter coupled to the front wheel support frame; and wherein the stroller handle is provided along an end of the first upper tube support frame and an end of the second upper tube support frame.

However, Liao teaches a similar stroller with seat attachments (See, e.g., Liao: Fig.1-13) wherein a first seat attachment adapter is coupled to the front wheel support frame (See, e.g., Liao: Fig.1-13), and a second seat attachment adapter is coupled to the front wheel support frame (See, e.g., Liao: Fig.1-13) and a handle (See, e.g., Liao:

Fig.1-13) is provided along an end of a first upper tube support frame and an end of a second upper tube 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 and to provide a handle coupled to upper tube support frames where the second seat is mounted. 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, and further modified with the handle coupled to the upper tube support frames such as taught by Liao, for the purpose of conveniently and beneficially allowing a user to push the stroller from a position where the handle adds the greatest mechanical advantage to the system thereby not requiring a parent to struggle to move 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)).

**[Claim 19]** Regarding Claim 19, the combination of Cheng in view of Liao further teaches: wherein the at least one back wheel support frame is rotatable with respect to the first upper tube support frame and the second upper tube support frame (See, e.g., Cheng: Fig. 4-8).

***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, and can be found on the attached Notice of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M DOLAK whose telephone number is (571)270-7757. The examiner can normally be reached on 9-530 EST Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J ALLEN SHRIVER can be reached on 303-297-4337. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES M DOLAK/
Primary Examiner, Art Unit 3618.

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| | Examiner JAMES M DOLAK | Art Unit 3618 | Page 1 of 1 |

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| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

| Search Notes | Application/Control No. | Applicant(s)/Patent Under Reexamination |
|---|---|---|
| | 15/912,901 | Lee et al. |
| | Examiner | Art Unit |
| | JAMES M DOLAK | 3618 |

| CPC - Searched* | | |
|---|---|---|
| Symbol | Date | Examiner |
| B62B7/008,00,006,14,142,145 | 04/15/2019 | JMD |
| B62B9/12,28,102 | 04/15/2019 | JMD |

| CPC Combination Sets - Searched* | | |
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| Symbol | Date | Examiner |
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| US Classification - Searched* | | | |
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| Class | Subclass | Date | Examiner |
| | | | |

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

| Search Notes | | |
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| Search Notes | Date | Examiner |
| Inventor Search | 04/15/2019 | JMD |
| EAST text search | 04/15/2019 | JMD |

| Interference Search | | | |
|---|---|---|---|
| US Class/CPC Symbol | US Subclass/CPC Group | Date | Examiner |
| | | | |

| /JAMES M DOLAK/ Primary Examiner.Art Unit 3618 | /JAMES M DOLAK/<br>Primary Examiner, Art Unit 3618 |
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| Index of Claims | Application/Control No. | Applicant(s)/Patent Under Reexamination |
|---|---|---|
| | 15/912,901 | Lee et al. |
| | Examiner | Art Unit |
| | JAMES M DOLAK | 3618 |

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| = | Allowed | ÷ | Restricted | I | Interference | O | Objected |

**CLAIMS**

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

| CLAIM | | DATE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Final | Original | 04/15/2019 | | | | | | | | |
| | 1 | ✓ | | | | | | | | |
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**EAST Search History**

**EAST Search History (Prior Art)**

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|---|---|---|---|---|---|---|
| | | (Simpson near2 (Stacy and Noel).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/12 08:16 |
| | | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:36 |
| | | (Lee near2 (Jon and Hee)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/08 17:36 |
| | | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/08 17:35 |
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| | | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/02/13 17:35 |
| | | S27 and ((wheel and seat) same add$7) | US-PGPUB; | OR | ON | 2012/06/28 23:15 |

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| | | | USPAT; USOCR; FPRS; EPO; JPO; DERWENT | | | |
| | | S10 and (seat near2 (attach$4 and convert$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:46 |
| L2 | 1 | ("7677585").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/28 23:08 |
| L3 | 1 | ("7481439").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/28 23:09 |
| L4 | 21 | ("4222132" \| "4805938" \| "4969656" \| "5064209" \| "5653460" \| "5887935" \| "5918892" \| "6155592" \| "6523840" \| "6527294" \| "6752405" \| "D360392").PN. OR ("7481439").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:10 |
| L5 | 94 | ("1239498" \| "1322788" \| "1418929" \| "1832770" \| "20020125662" \| "20040011884" \| "20050253348" \| "20050253431" \| "20050264064" \| "20060290107" \| "20070001410" \| "20070075510" \| "20070114738" \| "20070257526" \| "20080042476" \| "20090072520" \| "20090302556" \| "20090302578" \| "20100032925" \| "20100072731" \| "20100109270" \| "20100109293" \| "20100140902" \| "20100148553" \| "20100314925" \| "20110074195" \| "20110101742" \| "20110115264" \| "20120080244" \| "20130154215" \| "3173396" \| "3831960" \| "4310167" \| "4433869" \| "4893826" \| "4936629" \| "5022669" \| "5158319" \| "5301968" \| "5417449" \| "5556118" \| "5581843" \| "5653460" \| "5664795" \| "5722594" \| "6086087" \| "6135222" \| "6267406" \| "6312005" \| "6394470" \| "6454286" \| "6540239" \| "6698788" \| "6702306" \| "6935652" \| "6938906" \| "7059625" \| "7261308" \| "7338122" \| "7481439" \| "7497449" \| "7559606" \| "7597332" \| "7740313" \| "7770970" \| "7780184" \| "7789413" \| "7832756" \| "7854435" \| "7887129" \| "7891732" \| "7938433" \| "7971897" \| "7992889" \| "8029007" \| "8070179" \| "8128119" \| "8157273" \| "8262107" \| "8276935" \| "D326748" \| "D431798").PN. OR ("8882134").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:10 |
| L6 | 28 | ("1707186" \| "4222132" \| "4288089" \| "4354689" \| "4805938" \| "4969656" \| "5064209" \| "5076599" \| "5522121" \| "5653460" \| "5918892" \| "6086087" \| "6527294" \| "6752405").PN. OR | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:13 |

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|---|---|---|---|---|---|---|
| | | ("6938906").URPN. | | | | |
| L7 | 56 | ("20030080536" \| "20040075229" \| "20040124611" \| "20040173997" \| "20050127640" \| "20050242549" \| "20090295128" \| "20100038886" \| "20100230933" \| "4697823" \| "4846494" \| "4921261" \| "4946180" \| "5121940" \| "5338096" \| "5454575" \| "5624152" \| "5669623" \| "5687984" \| "5752738" \| "6189914" \| "6193263" \| "6209892" \| "6267406" \| "6409205" \| "6478327" \| "6702316" \| "6938906" \| "6964429" \| "6981709" \| "7017937" \| "7040694" \| "7284797" \| "7445230" \| "7513512" \| "7614640" \| "7770911" \| "8087680" \| "8100429" \| "8186705" \| "8186706" \| "8205894" \| "8282119" \| "8328208" \| "8388016" \| "8398098" \| "8414012" \| "D344474" \| "D345128" \| "D352923" \| "D430076" \| "D452192" \| "D455679" \| "D510549" \| "D593459").PN. OR ("8641077").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:14 |
| L8 | 32 | ("6896286" \| "D369992" \| "D519422" \| "D558099" \| "D566013" \| "D578045" \| "D579827").PN. OR ("D593459").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:15 |
| L9 | 66 | ("20020093177" \| "20020109320" \| "20030075903" \| "20030080536" \| "20030111825" \| "20040032103" \| "20040094922" \| "20040124610" \| "20040124611" \| "20040245747" \| "20050093259" \| "20050127640" \| "20050242535" \| "20050242549" \| "20060119079" \| "20070001429" \| "20070108710" \| "20070194545" \| "20080157491" \| "20090127827" \| "5333893" \| "5676386" \| "5772279" \| "5794951" \| "5833261" \| "5947555" \| "6086087" \| "6209892" \| "6286844" \| "6331032" \| "6398233" \| "6409205" \| "6513827" \| "6530591" \| "6626452" \| "6641164" \| "6702316" \| "6793280" \| "6802514" \| "6863286" \| "6893031" \| "6923467" \| "6983986" \| "6986518" \| "7017921" \| "7032922" \| "7070197" \| "7370913" \| "7377537" \| "7419181" \| "7445229" \| "7475900" \| "7513512" \| "7600775" \| "7614641" \| "7938435" \| "D430076").PN. OR ("8328208").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:18 |
| L10 | 1 | ("D593459").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/28 23:25 |
| S1 | 0 | ("20100140902").PN. | USPAT; USOCR | OR | OFF | 2011/11/10 17:53 |
| S2 | 1 | ("20100140902").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2011/11/10 17:55 |
| S3 | 4 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; | OR | ON | 2012/06/21 11:03 |

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| | | | USOCR; FPRS; EPO; JPO; DERWENT | | | |
| S4 | 8 | ("20030025304" \| "20070001429" \| "20070114738" \| "5338096").PN. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/21 11:10 |
| S5 | 15 | ("3223431" \| "3915493" \| "3917312" \| "4886209" \| "5184835").PN. OR ("5338096").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/21 11:19 |
| S6 | 1 | ("7320471").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/21 11:26 |
| S7 | 3 | ("5653460" \| "6045145" \| "6378892").PN. OR ("7320471").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/21 11:26 |
| S8 | 2837 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/27 15:43 |
| S9 | 37502244 | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:43 |
| S10 | 1861 | S8 and S9 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:44 |
| S11 | 1537 | S10 and seat | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:44 |
| S12 | 827 | S10 and (seat same attach$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:44 |
| S13 | 427 | S10 and (seat near2 attach$4) | US-PGPUB; USPAT; USOCR; FPRS; | OR | ON | 2012/06/27 15:44 |

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|---|---|---|---|---|---|---|
| | | | EPO; JPO; DERWENT | | | |
| S14 | 51 | S10 and (seat near2 (attach$4 and convert$4)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:46 |
| S15 | 2446 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/28 19:10 |
| S16 | 37502315 | @ad< = "20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 19:17 |
| S17 | 1076 | S15 and S16 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 19:17 |
| S18 | 2837 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/28 19:17 |
| S19 | 1861 | S18 and S16 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 19:17 |
| S20 | 35 | S17 and S19 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 19:17 |
| S21 | 2902 | S17 or S19 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 19:20 |
| S22 | 2446 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/28 23:15 |
| S23 | 37502315 | @ad< = "20081204" | US-PGPUB; USPAT; USOCR; | OR | ON | 2012/06/28 23:15 |

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|---|---|---|---|---|---|---|
| | | | FPRS; EPO; JPO; DERWENT | | | |
| S24 | 1076 | S22 and S23 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:15 |
| S25 | 2837 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/28 23:15 |
| S26 | 1861 | S25 and S23 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:15 |
| S27 | 2902 | S24 or S26 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:15 |
| S28 | 657 | S27 and ((wheel and seat) same attach$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:15 |
| S29 | 1 | ("6209892").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/28 23:16 |
| S30 | 44 | ("3829113" \| "4729572" \| "4768795" \| "4861105" \| "5056865" \| "5076599" \| "5146656" \| "5322343" \| "5676386" \| "5727798" \| "5820144" \| "5887889").PN. OR ("6209892").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:16 |
| S31 | 115 | S28 and expand$4 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:20 |
| S32 | 58 | ("5564786" \| "0733889" \| "6443467" \| "0329579" \| "5611560" \| "3235279" \| "0292933" \| "6017051" \| "0781495" \| "2305719" \| "1707186" \| "4989890" \| "6220621" \| "6676140" \| "1168896" \| "2517443" \| "20030075903" \| "0647165").PN. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:22 |
| S33 | 33 | ("2769482" \| "2857953" \| "2993702" \| "3235279" \| "3309101" \| "3330575" \| | US-PGPUB; | OR | ON | 2012/06/28 23:24 |

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|---|---|---|---|---|---|---|
| | | "3738700" \| "4725071" \| "5018754" \| "5263730" \| "5338096" \| "5417449" \| "5653460" \| "5664795" \| "5911432" \| "6045145" \| "6068087" \| "6378892" \| "D321850" \| "D359937").PN. OR ("6676140").URPN. | USPAT; USOCR | | | |
| S34 | 16 | ("1560802" \| "5076579" \| "5123670" \| "5188389" \| "5224720" \| "5301963" \| "5476275" \| "5669624" \| "5695208" \| "6017051" \| "6036220").PN. OR ("6443467").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:25 |
| S35 | 15 | ("1707186").URPN. | USPAT | OR | ON | 2012/06/28 23:28 |
| S36 | 14 | ("20030111825" \| "5333893" \| "6209892" \| "6513827" \| "6863286" \| "7032922" \| "7367581" \| "7377537" \| "D429664" \| "D430076").PN. OR ("7475900").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:31 |
| S37 | 44 | S31 and (wheel near2 remov$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:35 |
| S38 | 22 | ("3738600" \| "3876046" \| "4570956" \| "4750783" \| "5188389" \| "5234224" \| "5499831" \| "5536027" \| "5562300" \| "5876046" \| "6189914" \| "6193263" \| "6209892" \| "6290290" \| "6302412" \| "6398233" \| "6550802" \| "D397316" \| "D481975" \| "D486427" \| "D497844").PN. OR ("D508443").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:36 |
| S39 | 20 | ("4725071" \| "5221106" \| "5338096" \| "5522121" \| "5918892" \| "6209892" \| "6267406" \| "6527294" \| "D296540").PN. OR ("6752405").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:46 |
| S40 | 15 | ("0522608" \| "1707186" \| "3223431" \| "3524655" \| "3997180" \| "4620686" \| "4632409" \| "4836573" \| "6267406" \| "6752405" \| "7364183").PN. OR ("8157273").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:48 |
| S41 | 30 | ("0556168" \| "1707186" \| "1934396" \| "20020033588" \| "20050167951" \| "20070252352" \| "20080143082" \| "20090026733" \| "3383738" \| "4083579" \| "4805938" \| "5221106" \| "5333893" \| "5522121" \| "5769448" \| "5918892" \| "6431579" \| "6527294" \| "6601866" \| "6752405" \| "7481439" \| "7516966" \| "7597332" \| "D484075" \| "D595621" \| "D598333").PN. OR ("7896384").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:49 |
| S42 | 13 | ("3000645" \| "4969656" \| "5125712" \| "5522121" \| "5918892" \| "6527294" \| "6561526" \| "6715783" \| "6752405" \| "6851693" \| "6938906").PN. OR ("7677585").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:50 |
| S43 | 28 | ("0122730" \| "0937625" \| "1212221" \| "20070114738" \| "2836224" \| "3000645" \| "4288124" \| "4779883" \| "4805938" \| "4863217" \| "5312122" \| "5622375" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:51 |

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|---|---|---|---|---|---|---|
| | | "5653460" \| "5704627" \| "5848797" \| "6378892" \| "6530591" \| "6746079" \| "6851693" \| "7226059" \| "7481439" \| "7597332" \| "7677585").PN. OR ("8128103").URPN. | | | | |
| S44 | 9 | ("3000645").URPN. | USPAT | OR | ON | 2012/06/28 23:55 |
| S45 | 1 | ("6702316").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/29 00:04 |
| S46 | 29 | ("20010040357" \| "20020060444" \| "20020093177" \| "4852894" \| "4921261" \| "4989888" \| "5490685" \| "5641200" \| "5676386" \| "5794951" \| "5947555" \| "6189914" \| "6209892" \| "6241274" \| "6286844" \| "6302412" \| "6331032" \| "6398233" \| "6409205").PN. OR ("6702316").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/29 00:04 |
| S47 | 2446 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 04:43 |
| S48 | 37502608 | @ad< ="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 04:43 |
| S49 | 1076 | S47 and S48 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 04:43 |
| S50 | 2837 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 04:43 |
| S51 | 1861 | S50 and S48 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 04:43 |
| S52 | 2902 | S49 or S51 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 04:43 |
| S53 | 476 | S52 and cylindrical | US-PGPUB; USPAT; USOCR; FPRS; | OR | ON | 2012/07/01 04:43 |

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|---|---|---|---|---|---|---|
| | | | EPO; JPO; DERWENT | | | |
| S54 | 21 | S52 and cylindrical near2 connect$3 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 05:05 |
| S55 | 29 | ("1506565" \| "1885627" \| "1954179" \| "20040026895" \| "20040164515" \| "2220528" \| "2334387" \| "2482585" \| "5395130" \| "5454578" \| "5501480" \| "5536027" \| "5904363" \| "6022042" \| "6331013" \| "6443467" \| "6443469" \| "6685206" \| "6685207" \| "D327240" \| "D405031" \| "D486425").PN. OR ("7261308").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:10 |
| S56 | 28 | ("0122730" \| "0937625" \| "1212221" \| "20070114738" \| "2836224" \| "3000645" \| "4288124" \| "4779883" \| "4805938" \| "4863217" \| "5312122" \| "5622375" \| "5653460" \| "5704627" \| "5848797" \| "6378892" \| "6530591" \| "6746079" \| "6851693" \| "7226059" \| "7481439" \| "7597332" \| "7677585").PN. OR ("8128103").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:17 |
| S57 | 36 | ("1486118" \| "2769482" \| "2993702" \| "3253860" \| "3497234" \| "3612603" \| "4155588" \| "4181356" \| "4288124" \| "4381870" \| "4596405" \| "4632409" \| "4711489" \| "4813742" \| "4946180" \| "5161811" \| "5201535" \| "5213360" \| "5374073" \| "5401076" \| "5547205" \| "5848797" \| "5988657" \| "6135479" \| "6276709" \| "D340140").PN. OR ("6561526").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:18 |
| S58 | 18 | ("2926880" \| "3290050" \| "3309101" \| "4183580" \| "4711489" \| "4779883" \| "5074616" \| "5168601" \| "5265931" \| "5401076" \| "5529325").PN. OR ("5704627").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:21 |
| S59 | 23 | ("4542915" \| "4854607" \| "4986564" \| "5033761").PN. OR ("5653460").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:22 |
| S60 | 31 | ("2453631" \| "2558372" \| "4953887" \| "5090724" \| "5380262" \| "5653460" \| "5676386").PN. OR ("6155592").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:25 |
| S61 | 5 | ("2453631").URPN. | USPAT | OR | ON | 2012/07/01 05:27 |
| S62 | 33 | ("0279778" \| "1033324" \| "2453631" \| "3643292" \| "3849834" \| "3879146" \| "4132429" \| "4335900" \| "4606550" \| "4856809" \| "4902027" \| "4953880" \| "5176395" \| "5188389" \| "5263730" \| "5299825" \| "5318318" \| "5344171" \| "5356171" \| "5364119" \| "5536027").PN. OR ("5647601").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:28 |
| S63 | 5 | ("2453631").URPN. | USPAT | OR | ON | 2012/07/01 |

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|---|---|---|---|---|---|---|
| | | | | | | 05:29 |
| S64 | 16 | ("1560802" \| "5076579" \| "5123670" \| "5188389" \| "5224720" \| "5301963" \| "5476275" \| "5669624" \| "5695208" \| "6017051" \| "6036220").PN. OR ("6443467").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:33 |
| S65 | 1 | ("7677585").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 15:09 |
| S66 | 1 | ("6676140").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:02 |
| S67 | 1 | ("6443467").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:05 |
| S68 | 2 | ("1707186").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:05 |
| S69 | 1 | ("7475900").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:05 |
| S70 | 1 | ("6752405").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:14 |
| S71 | 1 | ("8157273").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:14 |
| S72 | 1 | ("7896384").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:15 |
| S73 | 1 | ("6561526").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:16 |
| S74 | 1 | ("5653460").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:17 |
| S75 | 2925 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/02/13 17:32 |
| S76 | 37571828 | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/02/13 17:32 |
| S77 | 1873 | S75 and S76 | US-PGPUB; | OR | ON | 2013/02/13 17:32 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR; FPRS; EPO; JPO; DERWENT | | | |
| S78 | 2516 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/02/13 17:35 |
| S79 | 35 | S78 and S77 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/02/13 17:36 |
| S80 | 1080 | S78 and S76 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/02/13 17:36 |
| S81 | 1 | ("20050082897").PN. OR ("8246020").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/13 17:44 |
| S82 | 9 | ("20070085303" \| "20080303232" \| "20090033066" \| "3784252" \| "5257799" \| "5794951" \| "6086086" \| "7367581" \| "7377537").PN. OR ("8205906").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/13 17:52 |
| S83 | 31 | ("20010002745" \| "20030067138" \| "20050099025" \| "20060237932" \| "20070063474" \| "20080067776" \| "20090026817" \| "2450051" \| "4754987" \| "5076599" \| "5267744" \| "5454577" \| "5474316" \| "5577746" \| "5921571" \| "5947497" \| "5979921" \| "6196572" \| "6663126" \| "6764087" \| "6767028" \| "6929274" \| "6976697" \| "7052026" \| "7168761" \| "7172206" \| "7354058" \| "7431324" \| "7445222" \| "7547029").PN. OR ("8262103").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/13 17:58 |
| S84 | 22 | ("20080211206" \| "20090014985" \| "20090078482" \| "3605929" \| "4362311" \| "4861058" \| "5020624" \| "5421598" \| "5921338" \| "6135222" \| "6220382" \| "6378642" \| "6439331" \| "6659488" \| "6793248" \| "7044249" \| "7080847" \| "7364182" \| "7571926" \| "7591479" \| "7832755").PN. OR ("8336904").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/13 18:03 |
| S85 | 1 | ("8251382").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/02/14 15:15 |
| S86 | 34 | ("20080150247" \| "20080179848" \| "20080224451" \| "20080303232" \| "20090102162" \| "20090121455" \| "20090256323" \| "20100001492" \| "20100109272" \| "20100127480" \| "4645371" \| "5028061" \| "5257799" \| "5364137" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/14 15:19 |

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| S87 | 32 | ("4836573" \| "4892327" \| "5028061" \| "5069474" \| "5257799" \| "5460430" \| "5887935" \| "5921574" \| "6099022" \| "6523853" \| "6594840" \| "6739649" \| "7281732").PN. OR ("7377537").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/14 17:50 |
| S88 | 57 | ("20020093177" \| "20020109320" \| "20030075903" \| "20030080536" \| "20030111825" \| "20040032103" \| "20040094922" \| "20040124610" \| "20040124611" \| "20040245747" \| "20050093259" \| "20050127640" \| "20050242535" \| "20050242549" \| "20060119079" \| "20070001429" \| "20070108710" \| "20070194545" \| "20080157491" \| "20090127827" \| "5333893" \| "5676386" \| "5772279" \| "5794951" \| "5833261" \| "5947555" \| "6086087" \| "6209892" \| "6286844" \| "6331032" \| "6398233" \| "6409205" \| "6513827" \| "6530591" \| "6626452" \| "6641164" \| "6702316" \| "6793280" \| "6802514" \| "6863286" \| "6893031" \| "6923467" \| "6983986" \| "6986518" \| "7017921" \| "7032922" \| "7070197" \| "7370913" \| "7377537" \| "7419181" \| "7445229" \| "7475900" \| "7513512" \| "7600775" \| "7614641" \| "7938435" \| "D430076").PN. OR ("8328208").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/14 17:52 |
| S89 | 3003 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/16 15:09 |
| S90 | 37602504 | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/07/16 15:09 |
| S91 | 1876 | S89 and S90 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/07/16 15:09 |
| S92 | 2544 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/16 15:11 |
| S93 | 1082 | S92 and S90 | US-PGPUB; USPAT; USOCR; | OR | ON | 2013/07/16 15:11 |

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|---|---|---|---|---|---|---|
| | | | FPRS; EPO; JPO; DERWENT | | | |
| S94 | 51 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20100140902-$ or US-20080303232-$ or US-20070085303-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$).did. or (US-3000645-$ or US-2453631-$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/23 15:10 |
| S95 | 26 | ("20060131841" \| "20070069505" \| "20070210560" \| "20080012268" \| "20080224450" \| "20080224451" \| "20090160162" \| "20100171289" \| "20100201103" \| "5947555" \| "6045145" \| "6270111" \| "6331032" \| "6715783" \| "7032922" \| "7367581" \| "7475900" \| "7677585" \| "7753398" \| "7775532" \| "7798500" \| "7938435" \| "8061732" \| "8128119" \| "8157273" \| "8205906").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/23 15:16 |
| S96 | 1 | ("8240700").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/23 15:17 |
| S97 | 231 | ("1598778" \| "1709527" \| "20050012306" \| "20050242549" \| "20060001226" \| "20060131840" \| "20060131841" \| "20060152059" \| "20060157945" \| "20060219374" \| "20060261576" \| "20090127827" \| "20090127828" \| "20090243260" \| "20100038886" \| "2616719" \| "2783053" \| "3112042" \| "3168330" \| "3227484" \| "3390893" \| "3459435" \| "3504926" \| "3556546" \| "3561787" \| "3653681" \| "3799567" \| "3989295" \| "4007947" \| "4023825" \| "4046401" \| "4111454" \| "4126331" \| "4191397" \| "4232897" \| "4248443" \| "4317581" \| "4322093" \| "4335900" \| "4362315" \| "4365819" \| "4378946" \| "4412688" \| "4415180" \| "4513974" \| "4542915" \| "4564212" \| "4591176" \| "4602395" \| "4606550" \| "4610460" \| "4632420" \| "4632421" \| "4660850" \| "4706986" \| "4733882" \| "4741056" \| "4741551" \| "4763911" \| "4763919" \| "4768795" \| "4770437" \| "4805928" \| "4807928" \| "4817982" \| "4819958" \| "4832361" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/23 15:17 |

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| | | "4856809" \| "4886289" \| "4892327" \| "4906017" \| "4907818" \| "4924725" \| "4930697" \| "4953887" \| "4968092" \| "5028061" \| "5056805" \| "5074575" \| "5087066" \| "5110150" \| "5143398" \| "5181735" \| "5184835" \| "5201535" \| "5205577" \| "5205579" \| "5238292" \| "5244228" \| "5246272" \| "5257799" \| "5362089" \| "5388852" \| "5398951" \| "5417449" \| "5417450" \| "5427402" \| "5431478" \| "5437493" \| "5441163" \| "5454584" \| "5460395" \| "5460398" \| "5472224" \| "5478102" \| "5489138" \| "5511259" \| "5511441" \| "5524503" \| "5527090" \| "5605409" \| "5622377" \| "5645293" \| "5649737" \| "5664795" \| "5669623" \| "5669624" \| "5669625" \| "5676386" \| "5718444").PN. OR ("5722682" \| "5727798" \| "5741021" \| "5752738" \| "5765855" \| "5765856" \| "5769447" \| "5772235" \| "5775718" \| "5795091" \| "5810432" \| "5845666" \| "5845924" \| "5876057" \| "5887935" \| "5921571" \| "5934757" \| "5938229" \| "5947555" \| "5979928" \| "5984332" \| "5988669" \| "5988670" \| "6068284" \| "6070890" \| "6099022" \| "6102431" \| "6116624" \| "6129373" \| "6139046" \| "6152476" \| "6155740" \| "6189914" \| "6193263" \| "6209829" \| "6273451" \| "6286844" \| "6296004" \| "6299194" \| "6302613" \| "6339862" \| "6368006" \| "6398233" \| "6409205" \| "6412809" \| "6443261" \| "6443479" \| "6446990" \| "6467739" \| "6478327" \| "6557871" \| "6557885" \| "6572134" \| "6581957" \| "6666473" \| "6851700" \| "7017921" \| "7017937" \| "7032922" \| "7044497" \| "7185909" \| "7188858" \| "7281732" \| "7338122" \| "7445229" \| "7445230" \| "7621431" \| "7686322" \| "7871100" \| "D308656" \| "D310645" \| "D317280" \| "D320370" \| "D337257" \| "D352017" \| "D357439" \| "D357440" \| "D412142" \| "D415075" \| "D419113" \| "D421940" \| "D427822" \| "D431212" \| "D431213" \| "D452192" \| "D470803" \| "D473663" \| "D480195" \| "D494511" \| "D521422" \| "D545074" \| "D558648" \| "D566629" \| "D593272" \| "D604151" \| "D617255" \| "D630934" \| "D636300").PN. OR ("8240700").URPN. | | | | |
| S98 | 1 | ("8186705").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/23 16:51 |
| S99 | 236 | ("1598778" \| "1709527" \| "20050012306" \| "20050242549" \| "20060001226" \| "20060131840" \| "20060131841" \| "20060152059" \| "20060157945" \| "20060219374" \| "20060261576" \| "20090127827" \| "20090127828" \| "20090243260" \| "20100171289" \| "2616719" \| "2783053" \| "3112042" \| "3168330" \| "3227484" \| "3390893" \| "3459435" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/23 16:56 |

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"5845924" | "5876057" | "5887935" |
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"D317280" | "D320370" | "D337257" |
"D352017" | "D357439" | "D357440" |
"D412142" | "D415075" | "D419113" |
"D421940" | "D427822" | "D431212" |
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"D473663" | "D480195" | "D494511" |

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|---|---|---|---|---|---|---|
| | | "D521422" \| "D545074" \| "D558648" \| "D566629" \| "D593272" \| "D604151" \| "D617255" \| "D630934" \| "D636300").PN. OR ("8186705").URPN. | | | | |
| S100 | 17 | ("20060001226" \| "6099022" \| "5121940" \| "6502901" \| "6530591" \| "6641164" \| "20060157945" \| "6193263" \| "6626452" \| "20060152059" \| "4365819" \| "6209829" \| "6398233" \| "6877761" \| "7070197" \| "20060131841" \| "7320471").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/23 17:08 |
| S101 | 2 | ("4953667" \| "4257729").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 13:00 |
| S102 | 1 | ("6168174").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:04 |
| S103 | 1 | ("6209892").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:04 |
| S104 | 1 | ("6296260").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:18 |
| S105 | 1 | ("6203053").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:19 |
| S106 | 1 | ("4681330").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:20 |
| S107 | 1 | ("5685552").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:21 |
| S108 | 1 | ("5984326").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:21 |
| S109 | 1 | ("6168174").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:22 |
| S110 | 1 | ("6209892").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:22 |
| S111 | 6 | ("5653460" \| "6045145" \| "6378892").PN. OR ("7320471").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 13:25 |
| S112 | 23 | ("4657269" \| "4836573" \| "5184835" \| "5338096" \| "5664795" \| "5911432").PN. OR ("6045145").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 13:26 |
| S113 | 53 | ("20030192925" \| "20050072821" \| "2907372" | US- | OR | ON | 2013/07/24 |

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|---|---|---|---|---|---|---|
| | | \| "3079162" \| "3248125" \| "3627342" \| "3961803" \| "3967833" \| "4032173" \| "4113306" \| "4181356" \| "4220351" \| "4231587" \| "4239259" \| "4256325" \| "4412688" \| "4620711" \| "4681340" \| "4762256" \| "4844504" \| "4892327" \| "5230523" \| "5333769" \| "5398951" \| "5411729" \| "5431478" \| "5468009" \| "5478096" \| "5662339" \| "5806924" \| "5829826" \| "5964470" \| "5987665" \| "6045145" \| "6231056" \| "6250654" \| "6375213" \| "6811178" \| "6910696" \| "D254610" \| "D345720" \| "D358058" \| "D365925" \| "D402235" \| "D508443").PN. OR ("7497461").URPN. | PGPUB; USPAT; USOCR | | | 16:08 |
| S114 | 22 | ("3738600" \| "3876046" \| "4570956" \| "4750783" \| "5188389" \| "5234224" \| "5499831" \| "5536027" \| "5562300" \| "5876046" \| "6189914" \| "6193263" \| "6209892" \| "6290290" \| "6302412" \| "6398233" \| "6550802" \| "D397316" \| "D481975" \| "D486427" \| "D497844").PN. OR ("D508443").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 16:13 |
| S115 | 26 | ("4790548" \| "5060967" \| "5366274" \| "5727848" \| "5975225" \| "6203054" \| "6513827" \| "7234722").PN. OR ("7367581").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 18:30 |
| S116 | 23 | ("4657269" \| "4836573" \| "5184835" \| "5338096" \| "5664795" \| "5911432").PN. OR ("6045145").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 18:39 |
| S117 | 55 | ("4736959" \| "4743063" \| "4872692" \| "4878680" \| "5201535" \| "5676386").PN. OR ("5947555").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 10:09 |
| S118 | 25 | ("20010040357" \| "20020093177" \| "20030075903" \| "4921261" \| "4989888" \| "5676386" \| "5794951" \| "5947555" \| "6189914" \| "6209892" \| "6241274" \| "6286844" \| "6302412" \| "6331032" \| "6398233" \| "6409205" \| "6641164" \| "6702316").PN. OR ("6923467").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 11:03 |
| S119 | 25 | ("4570956" \| "4836573" \| "4921261" \| "4946180" \| "5121940" \| "5188380" \| "5676386" \| "5772279" \| "5947555" \| "6070890" \| "6155592" \| "6286844" \| "6398233" \| "6409205" \| "6478327" \| "D345720").PN. OR ("6641164").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 11:28 |
| S120 | 2 | ("3000645").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/25 15:26 |
| S121 | 9 | ("3000645").URPN. | USPAT | OR | ON | 2013/07/25 15:27 |
| S122 | 29 | ("0122730" \| "0937625" \| "1212221" \| "20070114738" \| "2836224" \| "3000645" \| "4288124" \| "4779883" \| "4805938" \| "4863217" \| "5312122" \| "5622375" \| "5653460" \| "5704627" \| "5848797" \| "6378892" \| "6530591" \| "6746079" \| "6851693" \| "7226059" \| "7481439" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:29 |

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| | | "7597332" \| "7677585").PN. OR ("8128103").URPN. | | | | |
| S123 | 1 | ("8029007").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/25 15:30 |
| S124 | 28 | ("20010033069" \| "20020135142" \| "20030025304" \| "20030127835" \| "20040164510" \| "20070090619" \| "5463853" \| "5622375" \| "5625923" \| "5725238" \| "5882022" \| "5909887" \| "5967190" \| "6098492" \| "6422634" \| "6447001" \| "6453921" \| "6530591" \| "6540238" \| "6557878" \| "6698772" \| "6827356" \| "6893028" \| "7159829" \| "7290776").PN. OR ("8029007").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:31 |
| S125 | 1 | ("6851693").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/25 15:34 |
| S126 | 14 | ("3887208" \| "5064209" \| "5067738" \| "5269548" \| "5421597" \| "5470088" \| "5513868" \| "5785335").PN. OR ("6851693").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:35 |
| S127 | 6 | ("2001/0033069").URPN. | USPAT | OR | ON | 2013/07/25 15:36 |
| S128 | 28 | ("1876963" \| "20010033069" \| "20020089136" \| "20040075230" \| "20040173989" \| "20060261575" \| "20100201089" \| "2859975" \| "3069182" \| "4190261" \| "4239248" \| "4323258" \| "4336952" \| "4359231" \| "5624128" \| "5931244" \| "6203053" \| "6485039" \| "6517092" \| "6572130" \| "6626446" \| "7073822" \| "7377527" \| "7549655" \| "7699325").PN. OR ("8146926").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:37 |
| S129 | 1 | ("7249779").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/25 15:38 |
| S130 | 57 | ("1218943" \| "1347384" \| "1408729" \| "1560288" \| "20010035626" \| "20030151225" \| "2305719" \| "2435733" \| "2468933" \| "2798727" \| "3314494" \| "3738700" \| "3954283" \| "4015297" \| "4825484" \| "4958842" \| "5125674" \| "5190306" \| "5558357" \| "5562300" \| "5590896" \| "5692760" \| "5709400" \| "5820146" \| "5884922" \| "5975551" \| "6164666" \| "6231056" \| "6237995" \| "6340168" \| "6409190" \| "6460866" \| "6595536" \| "6601862" \| "6623023" \| "6676140" \| "6688614" \| "7029015").PN. OR ("7249779").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:38 |
| S131 | 60 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US- | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 16:59 |

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|---|---|---|---|---|---|---|
| | | 6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$).did. or (US-3000645-$ or US-2453631-$).did. | | | | |
| S132 | 7295614 | @ad< ="20081204" | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/29 18:38 |
| S133 | 2588 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/29 18:38 |
| S134 | 3082 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/29 18:38 |
| S135 | 1082 | S132 and S133 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:39 |
| S136 | 1877 | S132 and S134 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:39 |
| S137 | 5616 | S133 or S134 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:41 |
| S138 | 2924 | S132 and S137 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:41 |
| S139 | 1012 | S138 and stroller | US-PGPUB; | OR | ON | 2014/01/29 18:41 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR; FPRS; EPO; JPO; DERWENT | | | |
| S140 | 901 | S139 and seat$3 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:41 |
| S141 | 757 | S140 and (insert$4 or attach$4 or detach$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:42 |
| S142 | 107 | S141 and ((double or tandem) same stroller) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:42 |
| S143 | 1 | ("5816367").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/30 09:23 |
| S144 | 3 | ("2006/0290107").URPN. | USPAT | OR | ON | 2014/01/30 14:24 |
| S145 | 78 | ("20030020259" \| "20030227157" \| "20060290107" \| "20070001429" \| "20070085303" \| "20070222167" \| "20070296182" \| "20080073877" \| "20080150247" \| "20090039620" \| "20100038886" \| "20100038887" \| "20100072732" \| "20100078916" \| "20100109292" \| "20100140902" \| "20100282800" \| "20120153583" \| "2769482" \| "2798733" \| "2857953" \| "2993702" \| "3235279" \| "3309101" \| "4542915" \| "4725071" \| "4858947" \| "5018754" \| "5167425" \| "5184835" \| "5263730" \| "5333893" \| "5338096" \| "5417449" \| "5653460" \| "5664795" \| "5722682" \| "5911432" \| "6045145" \| "6086087" \| "6209892" \| "6267406" \| "6378892" \| "6497424" \| "6585284" \| "6676140" \| "6702316" \| "6843498" \| "6877761" \| "6935652" \| "6979017" \| "7320471" \| "7451999" \| "7938433" \| "8070179" \| "8157273" \| "8186705" \| "8205894" \| "D311363" \| "D321850" \| "D328047" \| "D359937" \| "D375706" \| "D429664" \| "D430076" \| "D431212" \| "D455679" \| "D587635" \| "D614540" \| "D616337" \| "D616338" \| "D636300").PN. OR ("8371606").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 14:26 |
| S146 | 8 | ("2010/0078916").URPN. | USPAT | OR | ON | 2014/01/30 14:27 |

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|---|---|---|---|---|---|---|
| S147 | 8 | ("20070096438" \| "20100025968" \| "20100078916" \| "6422586" \| "7401803" \| "7441794" \| "7632035" \| "7766366").PN. OR ("8596669").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 14:27 |
| S148 | 1 | ("8157273").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/30 16:20 |
| S149 | 18 | ("0522608" \| "1707186" \| "3223431" \| "3524655" \| "3997180" \| "4620686" \| "4632409" \| "4836573" \| "6267406" \| "6752405" \| "7364183").PN. OR ("8157273").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 16:21 |
| S150 | 1 | ("5338096").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/30 16:23 |
| S151 | 19 | ("3223431" \| "3915493" \| "3917312" \| "4886209" \| "5184835").PN. OR ("5338096").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 16:24 |
| S152 | 23 | ("4657269" \| "4836573" \| "5184835" \| "5338096" \| "5664795" \| "5911432").PN. OR ("6045145").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 17:17 |
| S153 | 53 | ("20030192925" \| "20050072821" \| "2907372" \| "3079162" \| "3248125" \| "3627342" \| "3961803" \| "3967833" \| "4032173" \| "4113306" \| "4181356" \| "4220351" \| "4231587" \| "4239259" \| "4256325" \| "4412688" \| "4620711" \| "4681340" \| "4762256" \| "4844504" \| "4892327" \| "5230523" \| "5333769" \| "5398951" \| "5411729" \| "5431478" \| "5468009" \| "5478096" \| "5662339" \| "5806924" \| "5829826" \| "5964470" \| "5987665" \| "6045145" \| "6231056" \| "6250654" \| "6375213" \| "6811178" \| "6910696" \| "D254610" \| "D345720" \| "D358058" \| "D365925" \| "D402235" \| "D508443").PN. OR ("7497461").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 17:56 |
| S154 | 6 | ("5653460" \| "6045145" \| "6378892").PN. OR ("7320471").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 18:00 |
| S155 | 23 | ("20010013689" \| "20040032103" \| "20040094923" \| "20070057486" \| "20080012268" \| "20080231022" \| "20090127827" \| "20090243260" \| "20090295128" \| "4398748" \| "4836573" \| "6446990" \| "6478327" \| "6572134" \| "7497461" \| "7513512" \| "7658399" \| "7686322" \| "7712765" \| "7775532" \| "7832755" \| "7878527" \| "7938435").PN. OR ("8231136").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/31 10:54 |
| S156 | 2 | ("2008/0231022").URPN. | USPAT | OR | ON | 2014/01/31 12:58 |
| S157 | 14 | ("20040094923" \| "20070057486" \| "20080012268" \| "20080231022" \| "20090127827" \| "20090243261" \| | US-PGPUB; USPAT; | OR | ON | 2014/01/31 12:59 |

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|---|---|---|---|---|---|---|
| | | "20120098219" \| "4398748" \| "4836573" \| "6446990" \| "6478321" \| "6478327" \| "6572134" \| "7712765").PN. OR ("8458880").URPN. | USOCR | | | |
| S158 | 1 | ("7938435").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/31 13:26 |
| S159 | 34 | ("4157839" \| "5558357" \| "5676386" \| "5772279" \| "5794951" \| "5863061" \| "5865447" \| "5876046" \| "5947555" \| "6241274" \| "6286844" \| "6331032" \| "6409205" \| "6428034" \| "6478327" \| "6533309" \| "6666473" \| "6893040" \| "7032922" \| "7267359" \| "7377537" \| "7431395" \| "7475900" \| "7681894" \| "7766366").PN. OR ("7938435").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/02/03 12:41 |
| S160 | 17 | ("20050098983" \| "2842374" \| "6357784" \| "7118121" \| "7267359" \| "7367581" \| "7441794" \| "7527283").PN. OR ("7766366").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/02/03 12:56 |
| S161 | 105 | ("1727335" \| "2435733" \| "2508905" \| "2509103" \| "2574743" \| "2722966" \| "2805076" \| "2864429" \| "3083997" \| "3116069" \| "3549164" \| "3829113" \| "4108468" \| "4412689" \| "4537414" \| "4570956" \| "4697845" \| "4743063" \| "4750783" \| "4762331" \| "4768795" \| "4786064" \| "4822064" \| "4832354" \| "4834403" \| "4861105" \| "4874182" \| "4915401" \| "4921261" \| "5121940" \| "5133567" \| "5197753" \| "5201535" \| "5203577" \| "5234224" \| "5265931" \| "5364137" \| "5375869" \| "5385386" \| "5499831" \| "5527096" \| "5564778" \| "5567008" \| "5601297" \| "5676386" \| "5707106" \| "5727798" \| "5772279" \| "5865447" \| "5876046" \| "5974555").PN. OR ("6286844").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/02/03 13:14 |
| S162 | 52 | ("3779655" \| "4191397" \| "4216974" \| "4412688" \| "4602889" \| "4634177" \| "4645371" \| "4834403" \| "5028061" \| "5257799" \| "5527096" \| "5772279" \| "5865447" \| "6286844").PN. OR ("6513827").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/02/03 13:21 |
| S168 | 1 | ("20140217706").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 10:03 |
| S169 | 3175 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 10:24 |
| S170 | 7324421 | @ad< = "20081204" | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 10:24 |
| S171 | 1878 | S169 and S170 | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 10:25 |

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|---|---|---|---|---|---|---|
| S172 | 64 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$).did. or (US-3000645-$ or US-2453631-$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 10:25 |
| S173 | 3686032 | @pd>="20140129" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 10:56 |
| S174 | 1 | S171 and S173 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 10:56 |
| S175 | 13 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 10:57 |
| S176 | 1 | ("7,497,461").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:01 |
| S177 | 94 | S169 and S173 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 11:08 |
| S178 | 12 | ("20070296182" \| "20100117315" \| "5820144" \| "6086086" \| "6513827" \| "6715783" \| | US-PGPUB; | OR | ON | 2014/09/24 11:25 |

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|---|---|---|---|---|---|---|
| | | "7032922" \| "7066542" \| "7364183" \| "7377537" \| "7455362" \| "8061732").PN. OR ("8764048").URPN. | USPAT; USOCR | | | |
| S179 | 15 | ("3797848" \| "4832361" \| "5074575" \| "6116624" \| "6446990" \| "6508605" \| "6530591" \| "6824161" \| "6830254" \| "6851700" \| "6951342" \| "7021650" \| "7273225" \| "7401803" \| "7513512").PN. OR ("8696016").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 11:41 |
| S180 | 1 | ("7,938,435").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:47 |
| S181 | 1 | ("20080231022").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:47 |
| S182 | 2 | ("2008/0231022").URPN. | USPAT | OR | ON | 2014/09/24 11:48 |
| S183 | 1 | ("7,766,366").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:51 |
| S184 | 1 | ("6,286,844").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:52 |
| S185 | 1 | ("6,513,827").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:53 |
| S186 | 0 | (2006/0131841).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:53 |
| S187 | 1 | ("20060131841").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:54 |
| S188 | 1 | ("20060001226").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:54 |
| S189 | 1 | ("7,320,471").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:55 |
| S190 | 1 | ("6,045,145").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:55 |
| S191 | 1 | ("20080224451").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:55 |
| S192 | 1 | ("7,481,439").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:57 |

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|---|---|---|---|---|---|---|
| S193 | 1 | ("7,367,581").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:57 |
| S194 | 1 | ("8,029,007").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:58 |
| S195 | 1 | ("6,923,467").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:58 |
| S196 | 1 | ("20070090619").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:58 |
| S197 | 1 | ("6,851,693").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:59 |
| S198 | 1 | ("20010033069").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 12:00 |
| S199 | 1 | ("7,249,779").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 12:00 |
| S200 | 57 | ("1218943" \| "1347384" \| "1408729" \| "1560288" \| "20010035626" \| "20030151225" \| "2305719" \| "2435733" \| "2468933" \| "2798727" \| "3314494" \| "3738700" \| "3954283" \| "4015297" \| "4825484" \| "4958842" \| "5125674" \| "5190306" \| "5558357" \| "5562300" \| "5590896" \| "5692760" \| "5709400" \| "5820146" \| "5884922" \| "5975551" \| "6164666" \| "6231056" \| "6237995" \| "6340168" \| "6409190" \| "6460866" \| "6595536" \| "6601862" \| "6623023" \| "6676140" \| "6688614" \| "7029015").PN. OR ("7249779").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 12:02 |
| S201 | 2665 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 12:02 |
| S202 | 79 | S201 and S173 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 12:03 |
| S203 | 2 | S202 and S170 | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 12:03 |
| S204 | 1 | ("5338096").PN. | US-PGPUB; USPAT; | OR | OFF | 2014/09/24 13:24 |

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|---|---|---|---|---|---|---|
| | | | USOCR | | | |
| S205 | 1 | ("20030025304").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 13:25 |
| S206 | 1 | ("20070001429").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 13:25 |
| S207 | 1 | ("20070085303").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 13:26 |
| S208 | 1 | ("20070114738").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 13:26 |
| S209 | 1 | ("7681894").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 14:33 |
| S210 | 14 | ("20040164593" \| "3145442" \| "5865447" \| "5947555" \| "6446314" \| "7032922").PN. OR ("7681894").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 14:33 |
| S211 | 1 | ("7377537").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 14:34 |
| S212 | 41 | ("7249779" \| "3000645" \| "7677585" \| "7377537" \| "20060001226" \| "8029007" \| "20080231022" \| "7766366" \| "6443467" \| "6561526" \| "20080224451" \| "6513827" \| "7475900" \| "7497461" \| "20070114738" \| "1707186" \| "6752405" \| "6851693" \| "7938435" \| "6676140" \| "6045145" \| "6923467" \| "20030025304" \| "20070001429" \| "5338096" \| "6045145" \| "20070090619" \| "6209892" \| "6378892" \| "7896384" \| "8157273" \| "8251382" \| "8262103" \| "8336904" \| "20010033069" \| "20060131841" \| "7320471" \| "7367581" \| "7481439" \| "6286844").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 14:56 |
| S219 | 19 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2015/04/20 13:53 |
| S220 | 22 | ("7249779" \| "20060001226" \| "20080231022" \| "7766366" \| "8029007" \| "20080224451" \| "6513827" \| "4797461" \| "7497461" \| "6851693" \| "7938435" \| "6045145" \| "6923467" \| "8905427" \| "20070090619" \| "20010033069" \| "20060131841" \| "6286844" \| "7320471" \| "7367581" \| "7481439" \| "8882134").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 13:58 |
| S221 | 1 | ("7475900").PN. | US-PGPUB; | OR | OFF | 2015/04/20 14:02 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR | | | |
| S222 | 68470442 | @ad< = "20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:02 |
| S223 | 1214191 | @pd> = "20140924" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:03 |
| S224 | 3292 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:04 |
| S225 | 2741 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:04 |
| S226 | 5977 | S224 or S225 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:04 |
| S227 | 2929 | S226 and S222 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:04 |
| S228 | 2 | S227 and S223 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:04 |
| S229 | 88 | ("0119331" \| "1138802" \| "1269379" \| "1707186" \| "1890469" \| "20040251063" \| "20070045975" \| "20090115151" \| "20090160162" \| "20100038887" \| "20100140902" \| "20110175330" \| "3223431" \| "3612603" \| "3726536" \| "4222132" \| "4349938" \| "4391453" \| "4403807" \| "4684148" \| "4725071" \| "4805938" \| "4834415" \| "4834452" \| "4858947" \| "4872692" \| "4969656" \| "5018754" \| "5033761" \| "5064209" \| "5167425" \| "5221106" \| "5230523" \| "5338096" \| "5653460" \| "5664795" \| "5772235" \| "5887935" \| "5918892" \| "6086087" \| "6099022" \| "6267406" \| "6357784" \| "6361111" \| "6375213" \| "6431579" \| "6527294" \| "6536842" \| "6585284" \| "6676140" \| "6679506" \| "6752405" \| "6843498" \| "6935652" \| "6938906" \| "6938954" \| "7025364" \| "7364183" \| "7367581" \| "7516966" \| "7597332" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 14:04 |

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|---|---|---|---|---|---|---|
| | | "7896384" \| "8128103" \| "8157273" \| "8398143" \| "D296540" \| "D300310" \| "D305316" \| "D321850" \| "D328047" \| "D348489" \| "D360392" \| "D370437" \| "D382516" \| "D404344" \| "D430512" \| "D431212" \| "D452191" \| "D568794" \| "D593458" \| "D595621" \| "D598333").PN. OR ("8905427").URPN. | | | | |
| S230 | 84 | (B62B7/00).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:08 |
| S231 | 796 | (B62B7/008).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S232 | 666 | (B62B7/14).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S233 | 894 | (B62B7/142).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S234 | 1003 | (B62B9/102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S235 | 450 | (B62B9/12).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S236 | 3236 | S230 S231 S232 S233 S234 S235 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S237 | 2104 | S236 and S222 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:13 |
| S238 | 70 | S237 and (seat$3 same revers$4) | US-PGPUB; USPAT; USOCR; FPRS; | OR | ON | 2015/04/20 14:14 |

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|---|---|---|---|---|---|---|
| | | | EPO; JPO | | | |
| S239 | 77 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$ or US-20030025304-$ or US-20070069505-$ or US-20080231022-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$ or US-8764048-$ or US-8061732-$).did. or (US-8733784-$ or US-8696016-$ or US-8231136-$ or US-8458880-$ or US-7249779-$ or US-7681894-$ or US-8955869-$ or US-8905427-$).did. or (US-3000645-$ or US-2453631-$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 14:14 |
| S240 | 58 | S238 not S239 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:14 |
| S241 | 1 | ("8882134").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:15 |
| S242 | 87 | ("1239498" \| "1322788" \| "1418929" \| "1832770" \| "20020125662" \| "20040011884" \| "20050253348" \| "20050253431" \| "20050264064" \| "20060290107" \| "20070001410" \| "20070075510" \| "20070114738" \| "20070257526" \| "20080042476" \| "20090072520" \| "20090302556" \| "20090302578" \| "20100032925" \| "20100072731" \| "20100109270" \| "20100109293" \| "20100140902" \| "20100148553" \| "20100314925" \| "20110074195" \| "20110101742" \| "20110115264" \| "20120080244" \| "20130154215" \| "3173396" \| "3831960" \| "4310167" \| "4433869" \| "4893826" \| "4936629" \| "5022669" \| "5158319" \| "5301968" \| "5417449" \| "5556118" \| "5581843" \| "5653460" \| "5664795" \| "5722594" \| "6086087" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 14:16 |

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|---|---|---|---|---|---|---|
| | | "6135222" \| "6267406" \| "6312005" \| "6394470" \| "6454286" \| "6540239" \| "6698788" \| "6702306" \| "6935652" \| "6938906" \| "7059625" \| "7261308" \| "7338122" \| "7481439" \| "7497449" \| "7559606" \| "7597332" \| "7740313" \| "7770970" \| "7780184" \| "7789413" \| "7832756" \| "7854435" \| "7887129" \| "7891732" \| "7938433" \| "7971897" \| "7992889" \| "8029007" \| "8070179" \| "8128119" \| "8157273" \| "8262107" \| "8276935" \| "D326748" \| "D431798").PN. OR ("8882134").URPN. | | | | |
| S243 | 1 | ("6361111").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:19 |
| S244 | 1 | ("20040251063").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:19 |
| S245 | 1 | ("6527294").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:20 |
| S246 | 1 | ("20070045975").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:20 |
| S247 | 27 | ("20060001226" \| "20070045975" \| "20080296872" \| "20090033066" \| "5301970" \| "5520433" \| "5601302" \| "5709400" \| "5845924" \| "6099022" \| "6193263" \| "6203054" \| "6209892" \| "6398233" \| "6446990" \| "6540250" \| "6715783" \| "7377537" \| "7475900" \| "7753398").PN. OR ("8029014").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 14:30 |
| S249 | 2790 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 10:16 |
| S250 | 3337 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 10:16 |
| S251 | 102 | (B62B7/00).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S252 | 824 | (B62B7/008).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S253 | 686 | (B62B7/14).CPC. | US-PGPUB; USPAT; | OR | ON | 2015/12/07 10:17 |

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|---|---|---|---|---|---|---|
| | | | USOCR; FPRS; EPO; JPO | | | |
| S254 | 947 | (B62B7/142).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S255 | 1031 | (B62B9/102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S256 | 520 | (B62B9/12).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S257 | 3385 | S251 S252 S253 S254 S255 S256 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S258 | 1888686 | @pd>="20150420" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S259 | 6070 | S249 or S250 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S260 | 49 | S258 and S249 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S261 | 93 | S258 and S259 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S262 | 45 | S258 and S250 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S263 | 44 | S262 not S260 | US-PGPUB; USPAT; | OR | ON | 2015/12/07 10:18 |

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| | | | USOCR; FPRS; EPO; JPO | | | |
| S264 | 105 | S258 and S257 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:19 |
| S265 | 94 | S264 not S263 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:19 |
| S266 | 93 | S265 not S260 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:19 |
| S267 | 1 | ("8936261").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 12:33 |
| S268 | 64 | ("20040164593" \| "20060261565" \| "20070045975" \| "20070069505" \| "20070187914" \| "20080054579" \| "20080150247" \| "20080179848" \| "20080303232" \| "20090033066" \| "20090102162" \| "20090256323" \| "20100013281" \| "20100102535" \| "20100127480" \| "20100230933" \| "20100244408" \| "20100259021" \| "20110204600" \| "20110291389" \| "20110304124" \| "20120025492" \| "20120153583" \| "20120242062" \| "20120261961" \| "20130113188" \| "4872692" \| "5018405" \| "5676386" \| "5722682" \| "5947555" \| "6513827" \| "6530591" \| "6581957" \| "6851700" \| "7032922" \| "7267359" \| "7377537" \| "7401803" \| "7681894" \| "7686323" \| "7753397" \| "7753398" \| "7789402" \| "7798500" \| "7938435" \| "8029014" \| "8033555" \| "8157286" \| "8205906" \| "8240700" \| "8251382" \| "8322744" \| "8366127" \| "8454049" \| "8465045" \| "8469388" \| "8474854" \| "8480116" \| "8485546" \| "8544873" \| "8550489" \| "8596669").PN. OR ("8936261").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 12:33 |
| S269 | 18 | ("1671774" \| "1707186" \| "20050167951" \| "20070194545" \| "20100052277" \| "20110163519" \| "20120118516" \| "7032922" \| "7871100" \| "8157273" \| "8251382" \| "8585075" \| "8651502" \| "8727370" \| "D686541").PN. OR ("9010773").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 13:12 |
| S270 | 1 | ("6,286,844").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 18:14 |

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| S271 | 110 | (B62B7/00).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S272 | 855 | (B62B7/008).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S273 | 694 | (B62B7/14).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S274 | 989 | (B62B7/142).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S275 | 1052 | (B62B9/102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S276 | 540 | (B62B9/12).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S277 | 3473 | S271 S272 S273 S274 S275 S276 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S278 | 3353 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 12:46 |
| S279 | 2802 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 12:46 |
| S280 | 279114 | @pd>="20151207" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:47 |
| S281 | 21 | S277 and S280 | US-PGPUB; USPAT; USOCR; | OR | ON | 2016/02/12 12:53 |

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|---|---|---|---|---|---|---|
| | | | FPRS; EPO; JPO | | | |
| S282 | 16 | S278 and S280 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:53 |
| S283 | 12 | S279 and S280 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:53 |
| S284 | 17 | S281 not (S282 or S283) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:53 |
| S285 | 2 | ("20070069504" \| "7401803").PN. OR ("9242665").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/02/12 13:16 |
| S286 | 70 | ("20030020259" \| "20040094935" \| "20060226635" \| "20060290107" \| "20070075525" \| "20070085303" \| "20070114738" \| "20070267833" \| "20080001370" \| "20080179863" \| "20080224432" \| "20090039620" \| "20090236826" \| "20090302578" \| "20100038886" \| "20100038887" \| "20100072731" \| "20100140902" \| "20100201089" \| "20100282800" \| "20100301585" \| "20110175330" \| "20120098219" \| "20120098237" \| "20120169021" \| "20130049331" \| "20130234419" \| "20130264787" \| "20130270800" \| "20140159346" \| "20140312586" \| "20140346756" \| "4542915" \| "4725071" \| "5338096" \| "5417449" \| "5664795" \| "6086087" \| "6267406" \| "6676140" \| "6702316" \| "6843498" \| "6877761" \| "7451999" \| "7699325" \| "7971884" \| "8070180" \| "8146926" \| "8157273" \| "8205894" \| "8282109" \| "8322745" \| "8398143" \| "8444171" \| "8480115" \| "8684395" \| "8714582" \| "8757646" \| "8807588" \| "8844964" \| "8857829" \| "8905427" \| "8915516" \| "D321850" \| "D359937" \| "D375706" \| "D429664" \| "D430076" \| "D431212" \| "D636300").PN. OR ("9227650").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/02/12 13:18 |
| S287 | 1 | ("7475900").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 13:19 |
| S288 | 1 | ("4343124").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 15:17 |

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|---|---|---|---|---|---|---|
| S289 | 1 | ("4340124").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 15:18 |
| S290 | 1 | ("20140361517").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 15:50 |
| S291 | 111 | (B62B7/00).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S292 | 864 | (B62B7/008).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S293 | 699 | (B62B7/14).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S294 | 993 | (B62B7/142).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S295 | 1054 | (B62B9/102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S296 | 542 | (B62B9/12).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S297 | 3486 | S291 S292 S293 S294 S295 S296 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S298 | 3358 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 16:45 |
| S299 | 2805 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 16:45 |
| S300 | 6106 | S298 or S299 | US-PGPUB; | OR | ON | 2016/03/25 16:45 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR; FPRS; EPO; JPO | | | |
| S301 | 83034 | @pd>="20160212" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:45 |
| S302 | 8 | S300 and S301 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:59 |
| S303 | 6 | S297 and S301 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 17:01 |
| S304 | 13 | ("20080231022" \| "20090243261" \| "20130113188" \| "6513827" \| "7267359" \| "7377537" \| "7798500" \| "7938435" \| "8061732" \| "8733784" \| "8764048" \| "8777253" \| "8955869").PN. OR ("9260128").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:03 |
| S305 | 94 | ("1239498" \| "1322788" \| "1418929" \| "1832770" \| "20020125662" \| "20040011884" \| "20050253348" \| "20050253431" \| "20050264064" \| "20060290107" \| "20070001410" \| "20070075510" \| "20070114738" \| "20070257526" \| "20080042476" \| "20080224451" \| "20090072520" \| "20090302556" \| "20090302578" \| "20100032925" \| "20100072731" \| "20100109270" \| "20100109293" \| "20100140902" \| "20100148553" \| "20100314925" \| "20110074195" \| "20110101742" \| "20110115264" \| "20120080244" \| "20130154215" \| "20140191483" \| "3173396" \| "3831960" \| "4310167" \| "4433869" \| "4893826" \| "4936629" \| "5022669" \| "5158319" \| "5301968" \| "5417449" \| "5556118" \| "5581843" \| "5653460" \| "5664795" \| "5722594" \| "6086087" \| "6135222" \| "6267406" \| "6312005" \| "6394470" \| "6454286" \| "6540239" \| "6698788" \| "6702306" \| "6877762" \| "6935652" \| "6938906" \| "6981709" \| "7059625" \| "7261308" \| "7338122" \| "7481439" \| "7497449" \| "7559606" \| "7597332" \| "7740313" \| "7770970" \| "7780184" \| "7789413" \| "7832756" \| "7854435" \| "7887129" \| "7891732" \| "7938433" \| "7971897" \| "7992889" \| "8029007" \| "8070179" \| "8128118" \| "8128119" \| "8157273" \| "8262107" \| "8276935" \| "8882134" \| "9056622" \| "D326748" \| "D431798").PN. OR | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:04 |

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|---|---|---|---|---|---|---|
| | | ("9260127").URPN. | | | | |
| S306 | 1 | ("20150123440").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 17:20 |
| S307 | 1 | ("8955869").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 17:22 |
| S308 | 32 | ("20010033069" \| "20060001226" \| "20060131841" \| "20070090619" \| "20080224451" \| "20080231022" \| "6045145" \| "6286844" \| "6513827" \| "6851693" \| "6923467" \| "7249779" \| "7311323" \| "7320471" \| "7367581" \| "7377537" \| "7475900" \| "7481439" \| "7497461" \| "7681894" \| "7766366" \| "7938435" \| "8029007" \| "8033554" \| "8061732" \| "8231136" \| "8444171" \| "8458880" \| "8696016" \| "8733784" \| "8764048").PN. OR ("8955869").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:22 |
| S309 | 2 | "39773911".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/25 17:27 |
| S310 | 32 | ("4657269" \| "4836573" \| "5184835" \| "5338096" \| "5664795" \| "5911432").PN. OR ("6045145").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:33 |
| S311 | 28 | ("1203729" \| "1321009" \| "20020036391" \| "20050023783" \| "20070075525" \| "20070216138" \| "20070222167" \| "20090315300" \| "20100072732" \| "2769482" \| "4923208" \| "5338096" \| "5417449" \| "5664795" \| "5722682" \| "5740989" \| "5887935" \| "6045145" \| "6378892" \| "6676140" \| "7011318" \| "7445229" \| "8282119" \| "D587635" \| "D614540").PN. OR ("8857830").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:37 |
| S312 | 15 | "37454081".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/25 17:37 |
| S313 | 1 | "41399621".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/25 17:41 |
| S314 | 6 | ("2009/0302578").URPN. | USPAT | OR | ON | 2016/03/25 17:42 |
| S315 | 70 | ("20030020259" \| "20040094935" \| "20060226635" \| "20060290107" \| "20070075525" \| "20070085303" \| "20070114738" \| "20070267833" \| "20080001370" \| "20080179863" \| "20080224432" \| "20090039620" \| "20090236826" \| "20090302578" \| "20100038886" \| "20100038887" \| "20100072731" \| "20100140902" \| "20100201089" \| "20100282800" \| "20100301585" \| "20110175330" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:43 |

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|---|---|---|---|---|---|---|
| | | "20120098219" \| "20120098237" \| "20120169021" \| "20130049331" \| "20130234419" \| "20130264787" \| "20130270800" \| "20140159346" \| "20140312586" \| "20140346756" \| "4542915" \| "4725071" \| "5338096" \| "5417449" \| "5664795" \| "6086087" \| "6267406" \| "6676140" \| "6702316" \| "6843498" \| "6877761" \| "7451999" \| "7699325" \| "7971884" \| "8070180" \| "8146926" \| "8157273" \| "8205894" \| "8282109" \| "8322745" \| "8398143" \| "8444171" \| "8480115" \| "8684395" \| "8714582" \| "8757646" \| "8807588" \| "8844964" \| "8857829" \| "8905427" \| "8915516" \| "D321850" \| "D359937" \| "D375706" \| "D429664" \| "D430076" \| "D431212" \| "D636300").PN. OR ("9227650").URPN. | | | | |
| S316 | 108 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$ or US-20030025304-$ or US-20070187914-$ or US-20070069505-$ or US-20080231022-$ or US-20100301585-$ or US-20100013281-$ or US-20150360709-$ or US-20070069504-$ or US-20100072732-$ or US-20090302578-$ or US-20130113188-$ or US-20090243261-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$ or US-8764048-$ or US-8061732-$).did. or (US-8733784-$ or US-8696016-$ or US-8231136-$ or US-8458880-$ or US-7249779-$ or US-7311323-$ or US-8444171-$ or US-8033554-$ or US-7681894-$ or US-8955869-$ or US-8905427-$ or US-8882134-$ or US-8029014-$ or US-7789402-$ or US-7658399-$ or US-5167425-$ or US-8936261-$ or US-9010773-$ or US-9119483-$ or US-9200746-$ or US-9199659-$ or US-9108659-$ or US-9073563-$ or US-9242665-$ or US-7401803-$ or US-9227650-$ or US-9260128-$).did. or (US-9260127-$ or US-8857830-$ or US-2769482-$).did. or (US-3000645-$ or US- | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:54 |

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|---|---|---|---|---|---|---|
| | | 2453631-$).did. | | | | |
| S317 | 1 | ("20090290107").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 17:56 |
| S318 | 1 | ("20060290107").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 17:58 |
| S319 | 1 | ("4542915").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 18:07 |
| S320 | 2 | "47750100".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/25 21:54 |
| S321 | 1 | ("6209892").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 23:02 |
| S322 | 60 | ("3829113" \| "4729572" \| "4768795" \| "4861105" \| "5056865" \| "5076599" \| "5146656" \| "5322343" \| "5676386" \| "5727798" \| "5820144" \| "5887889").PN. OR ("6209892").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 23:02 |
| S323 | 60 | ("3829113" \| "4729572" \| "4768795" \| "4861105" \| "5056865" \| "5076599" \| "5146656" \| "5322343" \| "5676386" \| "5727798" \| "5820144" \| "5887889").PN. OR ("6209892").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/28 11:14 |
| S324 | 0 | (A stroller, comprising a stroller frame a plurality of wheels, including front and rear wheels a first seat coupled to the stroller frame at a first vertical position closer to a handle of the stroller frame and configured to hold a first child in the stroller a second seat attachment coupled to the stroller frame at a second vertical position substantially below the first vertical position and closer to the front wheels and comprising a left seat support element, wherein the left seat support element comprises a first connector portion releasably connected to the stroller frame closer to left front wheel and a left seat connector releasably connecting a second seat in either a forward or backward position and a right seat support element, wherein the right seat support element comprises a second connector portion releasably connected to the stroller frame closer to a right front wheel and a right seat connector releasably connecting the second seat in either a forward or backward position between the left and right seat support connectors and the second seat releasably connected to the left seat connector and the right seat connector and configured to hold a second child in the stroller while the first seat holds the first child).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:20 |
| S325 | 0 | (stroller frame wheel seat first vertical position handle child attach$4 coupl$3 left seat support | US-PGPUB; | AND | ON | 2016/03/28 13:42 |

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|---|---|---|---|---|---|---|
| | | element, first connector portion releas$4 connect$4 forward backward position).clm. | USPAT; USOCR; FPRS; EPO; JPO | | | |
| S326 | 0 | (stroller frame wheel seat vertical position handle attach$4 coupl$3 left seat support element, first connector portion releas$4 connect$4 forward backward position).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:42 |
| S327 | 0 | (stroller frame wheel seat vertical position handle attach$4 coupl$3 left support element portion releas$4 connect$4 forward backward position).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:43 |
| S328 | 0 | (stroller frame wheel seat vertical position handle attach$4 coupl$3 left support element portion releas$4 connect$4 forward backward).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:43 |
| S329 | 0 | (stroller frame wheel seat vertical position handle attach$4 coupl$3 left support$4 releas$4 connect$4 forward backward).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:43 |
| S330 | 3 | (stroller frame wheel seat vertical position handle attach$4 left support$4 releas$4 connect$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:44 |
| S331 | 14 | (stroller frame wheel seat vertical position handle attach$4 support$4 releas$4 connect$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:45 |
| S332 | 15 | (stroller frame wheel seat vertical position handle attach$4 releas$4 connect$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:46 |
| S333 | 1 | S332 not S331 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:46 |
| S334 | 18 | (stroller frame wheel seat vertical position handle attach$4 releas$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:47 |
| S335 | 3 | S334 not S332 | US-PGPUB; | AND | ON | 2016/03/28 13:47 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR; FPRS; EPO; JPO | | | |
| S336 | 25 | (stroller frame wheel seat vertical position$4 attach$4 releas$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:48 |
| S337 | 7 | S336 not S334 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:48 |
| S338 | 1 | "41399621".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/28 13:48 |
| S339 | 1 | ("20160339940").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/08 16:58 |
| S340 | 3453 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:22 |
| S341 | 2353 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:23 |
| S342 | 5184262 | @pd>="20160325" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:31 |
| S343 | 5004 | S340 or S341 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:33 |
| S344 | 254 | S342 and S343 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:33 |
| S346 | 4 | (Lee near2 (Jon and Hee)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; | OR | ON | 2017/06/08 17:52 |

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|---|---|---|---|---|---|---|
| | | | DERWENT | | | |
| S347 | 14 | (Roe near2 Megan).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/12 08:15 |
| S348 | 1 | (Simpson near2 (Stacy and Noel)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/12 08:16 |
| S349 | 66 | ("1707186" \| "20010033069" \| "20060001226" \| "20060131841" \| "20060290107" \| "20070090619" \| "20080224451" \| "20080231022" \| "20090302578" \| "3000645" \| "4542915" \| "5338096" \| "6045145" \| "6209892" \| "6286844" \| "6378892" \| "6443467" \| "6513827" \| "6561526" \| "6676140" \| "6752405" \| "6851693" \| "6923467" \| "7249779" \| "7311323" \| "7320471" \| "7367581" \| "7377537" \| "7401803" \| "7475900" \| "7481439" \| "7497461" \| "7677585" \| "7681894" \| "7766366" \| "7896384" \| "7938435" \| "8029007" \| "8029014" \| "8033554" \| "8061732" \| "8157273" \| "8231136" \| "8251382" \| "8262103" \| "8336904" \| "8444171" \| "8458880" \| "8696016" \| "8733784" \| "8764048" \| "8882134" \| "8905427" \| "8936261" \| "9010773" \| "9108654" \| "9108659" \| "9119483" \| "9199659" \| "9200746" \| "9227650" \| "9242665" \| "9260127" \| "9260128").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 09:35 |
| S350 | 111 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$ or US-20030025304-$ or US-20070187914-$ or US-20070069505-$ or US-20080231022-$ or US-20100301585-$ or US-20100013281-$ or US-20150360709-$ or US-20070069504-$ or US-20100072732-$ or US-20090302578-$ or US-20130113188-$ or US-20090243261-$ or US-20130049331-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 09:36 |

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|---|---|---|---|---|---|---|
| | | or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$ or US-8764048-$ or US-8061732-$).did. or (US-8733784-$ or US-8696016-$ or US-8231136-$ or US-8458880-$ or US-7249779-$ or US-7311323-$ or US-8444171-$ or US-8033554-$ or US-7681894-$ or US-8955869-$ or US-8905427-$ or US-8882134-$ or US-8029014-$ or US-7789402-$ or US-7658399-$ or US-5167425-$ or US-8936261-$ or US-9010773-$ or US-9119483-$ or US-9200746-$ or US-9199659-$ or US-9108659-$ or US-9073563-$ or US-9242665-$ or US-7401803-$ or US-9227650-$ or US-9260128-$).did. or (US-9260127-$ or US-8857830-$ or US-2769482-$ or US-4542915-$ or US-6715783-$).did. or (US-3000645-$ or US-2453631-$).did. | | | | |
| S351 | 4 | S349 not S350 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 09:41 |
| S352 | 34 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 09:44 |
| S353 | 96 | ("1269379" \| "1707186" \| "1890469" \| "20020158444" \| "20040251063" \| "20070045975" \| "20080122200" \| "20080224451" \| "20090115151" \| "20090160162" \| "20090289440" \| "20100038887" \| "20100140902" \| "20110175330" \| "20140265258" \| "3053493" \| "3223431" \| "3612603" \| "3726536" \| "4222132" \| "4349938" \| "4391453" \| "4403807" \| "4684148" \| "4725071" \| "4805938" \| "4834415" \| "4834452" \| "4858947" \| "4872692" \| "4969656" \| "5018754" \| "5033761" \| "5064209" \| "5167425" \| "5221106" \| "5230523" \| "5338096" \| "5522121" \| "5653460" \| "5664795" \| "5772235" \| "5887935" \| "5918892" \| "6086087" \| "6099022" \| "6267406" \| "6357784" \| "6361111" \| "6375213" \| "6431579" \| "6527294" \| "6536842" \| "6585284" \| "6676140" \| "6679506" \| "6752405" \| "6843498" \| "6935652" \| "6938906" \| "6938954" \| "7025364" \| "7364183" \| "7367581" \| "7516966" \| "7597332" \| "7896384" \| "8128103" \| "8157273" \| "8220822" \| "8282120" \| "8297642" \| "8398143" \| "8905427" \| "D296540" \| "D300310" \| "D305316" \| "D321850" \| "D328047" \| "D348489" \| "D360392" \| "D370437" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 09:46 |

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|---|---|---|---|---|---|---|
| | | "D382516" \| "D404344" \| "D430512" \| "D431212" \| "D452191" \| "D568794" \| "D593458" \| "D595621" \| "D598333").PN. OR ("9517787").URPN. | | | | |
| S354 | 8 | "48223173".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2017/06/12 09:47 |
| S355 | 10 | ("2013/0113185").URPN. | USPAT | OR | ON | 2017/06/12 09:48 |
| S356 | 36 | ("1486118" \| "2769482" \| "2993702" \| "3253860" \| "3497234" \| "3612603" \| "4155588" \| "4181356" \| "4288124" \| "4381870" \| "4596405" \| "4632409" \| "4711489" \| "4813742" \| "4946180" \| "5161811" \| "5201535" \| "5213360" \| "5374073" \| "5401076" \| "5547205" \| "5848797" \| "5988657" \| "6135479" \| "6276709" \| "D340140").PN. OR ("6561526").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 09:52 |
| S357 | 22 | ("1707186").URPN. | USPAT | OR | ON | 2017/06/12 09:53 |
| S358 | 0 | S350 and (cover$4 same door) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 09:56 |
| S359 | 0 | S350 and (cover$4 same2 door) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:00 |
| S360 | 17 | S350 and (cover$4 same attach$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:00 |
| S361 | 1 | ("7377537").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:08 |
| S362 | 56 | ("4836573" \| "4892327" \| "5028061" \| "5069474" \| "5257799" \| "5460430" \| "5887935" \| "5921574" \| "6099022" \| "6523853" \| "6594840" \| "6739649" \| "7281732").PN. OR ("7377537").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:08 |
| S363 | 3 | S349 and door | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:13 |
| S364 | 1 | ("9517787").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:19 |
| S365 | 1 | ("9517789").PN. | US- | OR | OFF | 2017/06/12 |

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|---|---|---|---|---|---|---|
| | | | PGPUB; USPAT; USOCR | | | 10:20 |
| S366 | 1 | ("9561817").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:20 |
| S367 | 1 | ("9493179").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:21 |
| S368 | 3453 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:22 |
| S369 | 2353 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:22 |
| S370 | 5004 | S368 or S369 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:22 |
| S371 | 23 | S370 and (cover$4 same door) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:22 |
| S372 | 5 | S370 and (cavit$3 same door) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:23 |
| S373 | 35 | ("2917316" \| "2993702" \| "3110504" \| "3248125" \| "3309101" \| "5579556" \| "5622375" \| "5664795" \| "5725238" \| "6086087" \| "6276759" \| "6312005" \| "D319493" \| "D444738" \| "D450265").PN. OR ("6447001").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:23 |
| S374 | 40 | S370 and (cavit$3 same cover$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:24 |
| S375 | 1 | ("5522121").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:28 |
| S376 | 25 | ("0461069" \| "1318850" \| "1352647" \| "1688148" \| "1707186" \| "4805938").PN. OR ("5522121").URPN. | US-PGPUB; USPAT; | OR | ON | 2017/06/12 10:29 |

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|---|---|---|---|---|---|---|
| | | | USOCR | | | |
| S377 | 1 | ("6449801").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:29 |
| S378 | 1 | ("20070114738").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:30 |
| S379 | 2 | "38052732".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2017/06/12 10:30 |
| S380 | 41 | ("20010033069" \| "20020135142" \| "20030025304" \| "20030127835" \| "20040164510" \| "20070090619" \| "5463853" \| "5622375" \| "5625923" \| "5725238" \| "5882022" \| "5909887" \| "5967190" \| "6098492" \| "6422634" \| "6447001" \| "6453921" \| "6530591" \| "6540238" \| "6557878" \| "6698772" \| "6827356" \| "6893028" \| "7159829" \| "7290776").PN. OR ("8029007").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:30 |
| S381 | 13 | ("20040164510" \| "20070090619" \| "20120098237" \| "20130234419" \| "20130264787" \| "20160001805" \| "3061328" \| "5622375" \| "6422634" \| "6530591" \| "7004272" \| "8029007").PN. OR ("9545941").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:31 |
| S382 | 91 | ("1239498" \| "1322788" \| "1418929" \| "1832770" \| "20020125662" \| "20040011884" \| "20050253348" \| "20050253431" \| "20050264064" \| "20060290107" \| "20070001410" \| "20070075510" \| "20070114738" \| "20070257526" \| "20080042476" \| "20090072520" \| "20090302556" \| "20090302578" \| "20100032925" \| "20100072731" \| "20100109270" \| "20100109293" \| "20100140902" \| "20100148553" \| "20100314925" \| "20110074195" \| "20110101742" \| "20110115264" \| "20120080244" \| "20130154215" \| "3173396" \| "3831960" \| "4310167" \| "4433869" \| "4893826" \| "4936629" \| "5022669" \| "5158319" \| "5301968" \| "5417449" \| "5556118" \| "5581843" \| "5653460" \| "5664795" \| "5722594" \| "6086087" \| "6135222" \| "6267406" \| "6312005" \| "6394470" \| "6454286" \| "6540239" \| "6698788" \| "6702306" \| "6935652" \| "6938906" \| "7059625" \| "7261308" \| "7338122" \| "7481439" \| "7497449" \| "7559606" \| "7597332" \| "7740313" \| "7770970" \| "7780184" \| "7789413" \| "7832756" \| "7854435" \| "7887129" \| "7891732" \| "7938433" \| "7971897" \| "7992889" \| "8029007" \| "8070179" \| "8128119" \| "8157273" \| "8262107" \| "8276935" \| "D326748" \| "D431798").PN. OR ("8882134").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:33 |
| S383 | 42 | ("0522608" \| "1707186" \| "3223431" \| | US- | OR | ON | 2017/06/12 |

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|---|---|---|---|---|---|---|
| | | "3524655" \| "3997180" \| "4620686" \| "4632409" \| "4836573" \| "6267406" \| "6752405" \| "7364183").PN. OR ("8157273").URPN. | PGPUB; USPAT; USOCR | | | 10:46 |
| S384 | 15 | ("20050242548" \| "20070052271" \| "4518139" \| "4681340" \| "6022077" \| "6536842").PN. OR ("7364183").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:49 |
| S385 | 1 | ("6286844").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 12:09 |
| S386 | 119 | ("1727335" \| "2435733" \| "2508905" \| "2509103" \| "2574743" \| "2722966" \| "2805076" \| "2864429" \| "3083997" \| "3116069" \| "3549164" \| "3829113" \| "4108468" \| "4412689" \| "4537414" \| "4570956" \| "4697845" \| "4743063" \| "4750783" \| "4762331" \| "4768795" \| "4786064" \| "4822064" \| "4832354" \| "4834403" \| "4861105" \| "4874182" \| "4915401" \| "4921261" \| "5121940" \| "5133567" \| "5197753" \| "5201535" \| "5203577" \| "5234224" \| "5265931" \| "5364137" \| "5375869" \| "5385386" \| "5499831" \| "5527096" \| "5564778" \| "5567008" \| "5601297" \| "5676386" \| "5707106" \| "5727798" \| "5772279" \| "5865447" \| "5876046" \| "5974555").PN. OR ("6286844").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:13 |
| S387 | 91 | ("0706448" \| "1480451" \| "1508500" \| "1952467" \| "20010013689" \| "20040212161" \| "20060085953" \| "20070085302" \| "20070120404" \| "20090029784" \| "20090181780" \| "20110278810" \| "20120023662" \| "20120060326" \| "20120235450" \| "20130334781" \| "20140042729" \| "20150008659" \| "20150042056" \| "20150042076" \| "20150175189" \| "2708585" \| "2961248" \| "3564626" \| "4476649" \| "5099528" \| "5201535" \| "5562548" \| "5676386" \| "5772279" \| "5846136" \| "5947555" \| "5987665" \| "5988670" \| "6250654" \| "6286844" \| "6471597" \| "6671926" \| "6872146" \| "6893040" \| "7037205" \| "7100724" \| "7354352" \| "7377537" \| "7445559" \| "7475942" \| "7497461" \| "7607734" \| "7681894" \| "7686323" \| "7694996" \| "7766366" \| "7905791" \| "7938435" \| "8029014" \| "8251382" \| "8292750" \| "8550556" \| "8672341" \| "8746794" \| "8851505" \| "8944927" \| "8955869" \| "9085312" \| "D156930" \| "D371094" \| "D377466" \| "D408768" \| "D442895" \| "D452195" \| "D475951" \| "D481976" \| "D498713" \| "D498714" \| "D519063" \| "D604055" \| "D622640" \| "D623429" \| "D667229" \| "D682562" \| "D684789" \| "D687352" \| "D743304").PN. OR ("9421992").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:16 |
| S388 | 20 | ("20010040357" \| "20080106070" \| | US- | OR | ON | 2017/06/12 |

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|---|---|---|---|---|---|---|
| | | "20100127480" \| "20110181026" \| "20160144879" \| "5257799" \| "5645293" \| "6102432" \| "6312005" \| "7281732" \| "7641216" \| "8141895" \| "8240698" \| "8585075" \| "8696015" \| "8696016" \| "8998241" \| "9050993" \| "9421991" \| "9540028").PN. OR ("9637155").URPN. | PGPUB; USPAT; USOCR | | | 12:16 |
| S389 | 9 | ("20120326474" \| "4306749" \| "4634177" \| "4915446" \| "5947556" \| "6286844" \| "6595583" \| "8251382" \| "8678498").PN. OR ("9346378").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:21 |
| S390 | 9 | ("20120326474" \| "4306749" \| "4634177" \| "4915446" \| "5947556" \| "6286844" \| "6595583" \| "8251382" \| "8678498").PN. OR ("9346378").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:54 |
| S391 | 28 | ("20030015895" \| "20090066130" \| "20090295207" \| "4306749" \| "4750783" \| "5385387" \| "5478135" \| "5562548" \| "5586351" \| "5997098" \| "6017088" \| "6170911" \| "6299249" \| "6331032" \| "6336682" \| "6347832" \| "6428099" \| "6428100" \| "6443522" \| "6554358" \| "6705676" \| "6793280" \| "6921359" \| "6979057" \| "7090294").PN. OR ("8678498").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:55 |
| S392 | 54 | ("20080150247" \| "20080179848" \| "20080224451" \| "20080303232" \| "20090102162" \| "20090121455" \| "20090256323" \| "20100001492" \| "20100109272" \| "20100127480" \| "4645371" \| "5028061" \| "5257799" \| "5364137" \| "5676386" \| "5772279" \| "5865447" \| "5947555" \| "6286844" \| "6446990" \| "6513827" \| "6991248" \| "7032922" \| "7296820" \| "7314247" \| "7367581" \| "7377537" \| "7584985" \| "7658399" \| "7681894" \| "7686323" \| "7694996" \| "7712765" \| "7753398").PN. OR ("8251382").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:08 |
| S393 | 15 | ("20080231022" \| "5773379" \| "5947555" \| "6286844" \| "6893040" \| "7032922" \| "7267359" \| "7475900" \| "7658399" \| "7681894" \| "7766366" \| "7938435" \| "8033555" \| "D621306").PN. OR ("8851505").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:09 |
| S394 | 58 | ("20010013689" \| "20050264062" \| "20060214397" \| "20070257458" \| "20070296182" \| "20080136127" \| "20080231023" \| "20100219616" \| "20100230933" \| "20120025492" \| "4834403" \| "5028061" \| "5201535" \| "5203577" \| "5257799" \| "5277472" \| "5364137" \| "5564778" \| "5567008" \| "5676386" \| "5772279" \| "5794951" \| "5947555" \| "6086086" \| "6089653" \| "6286844" \| "6318807" \| "6446990" \| "6572134" \| "6595583" \| "6793280" \| "6802514" \| "6863286" \| "6942294" \| "6983986" \| "7032922" \| "7070197" \| "7207628" \| "7370913" \| "7377537" \| "7681894" \| "7686322" \| "7694996" \| "7753398" \| "8029014" \| "8070228" \| "8172253" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:09 |

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|---|---|---|---|---|---|---|
| | | "8282120" \| "8382150").PN. OR ("8651502").URPN. | | | | |
| S395 | 76 | ("3779655" \| "4191397" \| "4216974" \| "4412688" \| "4602889" \| "4634177" \| "4645371" \| "4834403" \| "5028061" \| "5257799" \| "5527096" \| "5772279" \| "5865447" \| "6286844").PN. OR ("6513827").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:12 |
| S396 | 49 | ("4915401" \| "5133567" \| "5277472" \| "5564778" \| "5644816" \| "5676386" \| "5772279").PN. OR ("5865447").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:13 |
| S397 | 88 | ("0763771" \| "0921361" \| "1167525" \| "2509972" \| "2982562" \| "3029087" \| "3083997" \| "3596986" \| "4306749" \| "4345791" \| "4371206" \| "4385769" \| "4501032" \| "4545613" \| "4634177" \| "4664396" \| "4733909" \| "4861105" \| "4915446" \| "4943113" \| "4984813" \| "4998307" \| "5052750" \| "5058283" \| "5203577" \| "5277472" \| "5385387" \| "D294777" \| "D305583" \| "D322001" \| "D325132").PN. OR ("5567008").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:14 |
| S398 | 92 | ("2982562" \| "3100651" \| "3290050" \| "3330575" \| "3784252" \| "4072318" \| "4378946" \| "4412688" \| "4428598" \| "4478427" \| "4606550" \| "4762364" \| "4815764" \| "5004253" \| "5074575").PN. OR ("5201535").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:16 |
| S399 | 119 | ("1727335" \| "2435733" \| "2508905" \| "2509103" \| "2574743" \| "2722966" \| "2805076" \| "2864429" \| "3083997" \| "3116069" \| "3549164" \| "3829113" \| "4108468" \| "4412689" \| "4537414" \| "4570956" \| "4697845" \| "4743063" \| "4750783" \| "4762331" \| "4768795" \| "4786064" \| "4822064" \| "4832354" \| "4834403" \| "4861105" \| "4874182" \| "4915401" \| "4921261" \| "5121940" \| "5133567" \| "5197753" \| "5201535" \| "5203577" \| "5234224" \| "5265931" \| "5364137" \| "5375869" \| "5385386" \| "5499831" \| "5527096" \| "5564778" \| "5567008" \| "5601297" \| "5676386" \| "5707106" \| "5727798" \| "5772279" \| "5865447" \| "5876046" \| "5974555").PN. OR ("6286844").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:23 |
| S400 | 82 | S397 not S399 | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:23 |
| S401 | 20 | ("20040164593" \| "3145442" \| "5865447" \| "5947555" \| "6446314" \| "7032922").PN. OR ("7681894").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:28 |
| S402 | 59 | ("20020175498" \| "20020195797" \| "20030111825" \| "20040046364" \| "20050098982" \| "20060071452" \| "20060237949" \| "5772235" \| "5823564" \| "7032922").PN. OR ("7267359").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:30 |
| S403 | 1 | ("5201535").PN. | US- | OR | OFF | 2017/06/12 |

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|---|---|---|---|---|---|---|
| | | | PGPUB; USPAT; USOCR | | | 13:32 |
| S404 | 1 | ("6286844").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 13:47 |
| S405 | 3477 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/11/13 16:13 |
| S406 | 2369 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/11/13 16:13 |
| S407 | 5040 | S405 or S406 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/11/13 16:13 |
| S408 | 1329175 | @pd>="20170608" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/11/13 16:16 |
| S409 | 44 | S407 and S408 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/11/13 16:16 |
| S410 | 3 | "37808038".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2017/11/13 17:27 |
| S423 | 1 | ("20180201293").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/15 10:50 |
| S424 | 39 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 10:51 |
| S425 | 8 | (Lee near2 (Jon and Hee)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2019/04/15 10:52 |
| S426 | 18 | (Roe near2 Megan).in. | US-PGPUB; | OR | ON | 2019/04/15 10:52 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR; FPRS; EPO; JPO; DERWENT | | | |
| S427 | 3 | (Simpson near2 (Stacy and Noel)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2019/04/15 10:52 |
| S428 | 151 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$ or US-20030025304-$ or US-20070187914-$ or US-20070069505-$ or US-20080231022-$ or US-20100301585-$ or US-20100013281-$ or US-20150360709-$ or US-20070069504-$ or US-20100072732-$ or US-20090302578-$ or US-20130113188-$ or US-20130049331-$ or US-20160001805-$ or US-20040164593-$ or US-20070075525-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$ or US-3000645-$).did. or (US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$ or US-8764048-$ or US-8061732-$ or US-8733784-$).did. or (US-8696016-$ or US-8231136-$ or US-8458880-$ or US-7249779-$ or US-7311323-$ or US-8444171-$ or US-8033554-$ or US-7681894-$ or US-8955869-$ or US-8905427-$ or US-8882134-$ or US-8029014-$ or US-7789402-$ or US-7658399-$ or US-5167425-$ or US-8936261-$ or US-9010773-$ or US-9119483-$ or US-9200746-$ or US-9199659-$ or US-9108659-$ or US-9073563-$ or US-9242665-$ or US-7401803-$ or US-9227650-$ or US-9260128-$ or US-9260127-$).did. or (US-8857830-$ or US-2769482-$ or US-4542915-$ or US-6715783-$ or US-9108654-$ or US-9630642-$ or US-9517787-$ or US-9327752-$ or US-6561526-$ or US-8967171-$ or US-9517789-$ or US-9561817-$ or US-5522121-$ or US-9545941-$ or US-9056622-$ or US-9403550-$ or US- | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 11:03 |

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|---|---|---|---|---|---|---|
| | | 8899615-$ or US-7364183-$ or US-9637155-$ or US-9421992-$ or US-9545940-$ or US-9346378-$ or US-8678498-$ or US-4915446-$ or US-4634177-$ or US-4306749-$ or US-8851505-$).did. or (US-8651502-$ or US-6893040-$ or US-6446990-$ or US-5865447-$ or US-5772279-$ or US-5567008-$ or US-8657326-$ or US-8491000-$ or US-6155740-$ or US-5947555-$ or US-7267359-$ or US-9776652-$ or US-9771095-$ or US-9725106-$ or US-9701333-$).did. or (US-3000645-$ or US-2453631-$ or US-1707186-$).did. | | | | |
| S429 | 55 | S424 S425 S426 S427 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:25 |
| S430 | 3 | S424 S425 S426 S427 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2019/04/15 12:25 |
| S431 | 80 | ("1707186" \| "20010033069" \| "20020109321" \| "20060001226" \| "20060131841" \| "20060290107" \| "20070090619" \| "20080224451" \| "20080231022" \| "20090302578" \| "20140191483" \| "20160046315" \| "3000645" \| "4542915" \| "5201535" \| "5338096" \| "5567008" \| "6045145" \| "6209892" \| "6286844" \| "6378892" \| "6443467" \| "6513827" \| "6561526" \| "6676140" \| "6752405" \| "6851693" \| "6923467" \| "7249779" \| "7311323" \| "7320471" \| "7367581" \| "7377537" \| "7401803" \| "7475900" \| "7481439" \| "7497461" \| "7677585" \| "7681894" \| "7766366" \| "7832755" \| "7896384" \| "7938435" \| "8029007" \| "8029014" \| "8033554" \| "8061732" \| "8157273" \| "8231136" \| "8251382" \| "8262103" \| "8336904" \| "8444171" \| "8458880" \| "8585075" \| "8596670" \| "8696016" \| "8733784" \| "8764048" \| "8882134" \| "8905427" \| "8936261" \| "9010773" \| "9108654" \| "9108659" \| "9119483" \| "9199659" \| "9200746" \| "9227650" \| "9242665" \| "9260127" \| "9260128" \| "9517787" \| "9561817" \| "9701333" \| "9725106" \| "9771095" \| "9776652").PN. OR ("9944305").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 12:26 |
| S432 | 3809 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:29 |
| S433 | 2627 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; | OR | ON | 2019/04/15 12:29 |

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|---|---|---|---|---|---|---|
| | | | FPRS; EPO; JPO | | | |
| S434 | 5496 | S432 or S433 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:29 |
| S435 | 7949590 | @pd>="20171113" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:29 |
| S436 | 308 | S434 and S435 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:30 |
| S437 | 2 | ("20100140902" \| "20140333039").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 12:52 |
| S438 | 84 | ("1707186" \| "20010033069" \| "20020109321" \| "20030025304" \| "20060001226" \| "20060131841" \| "20060290107" \| "20070001429" \| "20070085303" \| "20070090619" \| "20070114738" \| "20080224451" \| "20080231022" \| "20090302578" \| "20140191483" \| "20160046315" \| "3000645" \| "4542915" \| "5201535" \| "5338096" \| "5567008" \| "6045145" \| "6209892" \| "6286844" \| "6378892" \| "6443467" \| "6513827" \| "6561526" \| "6676140" \| "6752405" \| "6851693" \| "6923467" \| "7249779" \| "7311323" \| "7320471" \| "7367581" \| "7377537" \| "7401803" \| "7475900" \| "7481439" \| "7497461" \| "7677585" \| "7681894" \| "7766366" \| "7832755" \| "7896384" \| "7938435" \| "8029007" \| "8029014" \| "8033554" \| "8061732" \| "8157273" \| "8231136" \| "8251382" \| "8262103" \| "8336904" \| "8444171" \| "8458880" \| "8585075" \| "8596670" \| "8696016" \| "8733784" \| "8764048" \| "8882134" \| "8905427" \| "8936261" \| "9010773" \| "9108654" \| "9108659" \| "9119483" \| "9199659" \| "9200746" \| "9227650" \| "9242665" \| "9260127" \| "9260128" \| "9517787" \| "9561817" \| "9701333" \| "9725106" \| "9771095" \| "9776652").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 12:54 |
| S439 | 7 | S438 not S428 | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 12:55 |
| S440 | 11 | ("20060214395" \| "20070085303" \| "20090302578" \| "4763911" \| "5356172" \| "5395154" \| "5593173" \| "6431647").PN. OR ("8596670").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 12:58 |

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| S441 | 12 | ("2007/0085303").URPN. | USPAT | OR | ON | 2019/04/15 13:05 |
| S443 | 1 | ("7475900").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/15 14:37 |
| S444 | 1 | ("7377537").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/15 14:47 |

**EAST Search History (Interference)**

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|---|---|---|---|---|---|---|
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |

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| | | wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | | | | |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |

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|---|---|---|---|---|---|---|
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |

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| | | receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | | | | |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing, to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:51 |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing, to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:51 |

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| | | seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | | | | |
| S163 | 0 | (A seat attachment for a stroller, comprising a separate left attachment portion, wherein the left attachment portion comprises a connector portion capable of removably connecting to a stroller frame adjacent a left front wheel of the stroller and a left seat support element removably connecting a seat in either a forward or backward position and a separate right attachment portion, wherein the right attachment portion comprises a connector portion capable of removably connecting to the stroller frame adjacent a right front wheel of the stroller and a right seat support element removably connecting the seat in either a forward or backward position between the left and right seat support elements).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/03 17:17 |
| S164 | 0 | (seat attachment stroller separate left right attachment portion connector portion removably connecting frame adjacent front wheel seat support element removably connecting seat forward backward position).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/04 09:35 |
| S165 | 0 | (seat attach$4 stroller separate left right portion connect$4 remov$4 frame adjacent front wheel support$4 element forward backward position).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/04 09:46 |
| S166 | 1 | (seat attach$4 stroller separate left right connect$4 remov$4 frame wheel support$4).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/04 09:46 |
| S167 | 19 | (seat attach$4 stroller left right connect$4 remov$4 frame wheel).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/04 09:47 |
| S213 | 0 | (A seat attachment for a stroller, comprising a separate left attachment portion, wherein the left attachment portion comprises a connector portion capable of removably connecting to a stroller frame adjacent a left front wheel of the stroller and a left seat support element removably connecting a seat in either a forward or backward position and a separate right attachment portion, wherein the right attachment portion comprises a connector | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:26 |

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| | | portion capable of removably connecting to the stroller frame adjacent a right front wheel of the stroller and a right seat support element removably connecting the seat in either a forward or backward position between the left and right seat support elements).clm. | | | | |
| S214 | 1 | (seat attach$4 stroller separate left right connect$4 remov$4 frame wheel support$4).clm. | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:26 |
| S215 | 19 | (seat attach$4 stroller left right connect$4 remov$4 frame wheel).clm. | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:26 |
| S216 | 19 | (seat$3 attach$4 stroller left right connect$4 remov$4 fram$3 wheel).clm. | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:29 |
| S217 | 68 | (seat$3 attach$4 stroller connect$4 remov$4 fram$3 wheel).clm. | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:29 |
| S218 | 5 | ("20020036391" \| "20070069505" \| "20070187914" \| "4753453" \| "4779883").PN. OR ("8033554").URPN. | US-PGPUB; USPAT | OR | ON | 2014/09/24 14:32 |
| S248 | 4 | "Term Removed" or "Term Removed" | US-PGPUB; USPAT | OR | ON | 2015/04/20 14:14 |
| S411 | 0 | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |
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| S412 | 0 | (stroller frame wheel seat attachment housing first adapter receiving cavity extending through housing first door rotatably coupled to housing closed configuration preventing access to cavity from top side open configuration allowing access to cavity first removable seat attachment adapter removably coupled to housing and second removable seat attachment adapter removably coupled to housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:55 |
| S413 | 1 | (stroller frame wheel seat attach$4 hous$4 adapter receiv$4 cavity extend$4 door rotat$4 closed configuration prevent$4 access$4 open configuration allow$4 access).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:56 |
| S414 | 1 | (stroller frame wheel seat attach$4 hous$4 adapter receiv$4 cavity door rotat$4 closed configuration prevent$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:21 |
| S415 | 1 | (stroller wheel seat attach$4 hous$4 cavity door closed configuration prevent$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:22 |
| S416 | 1 | (stroller wheel seat attach$4 hous$4 cavity door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:22 |
| S417 | 1 | (stroller seat attach$4 hous$4 cavity door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:23 |
| S418 | 1 | (stroller seat$3 attach$4 cavity door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:24 |
| S419 | 1 | (stroller seat$3 cavity door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:24 |
| S420 | 3 | (stroller seat$3 door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:24 |
| S421 | 2 | (stroller seat$3 cavit$3 clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:26 |
| S422 | 21 | (stroller seat$3 cavit$3 clos$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:26 |
| S442 | 5 | "Term Removed" or "Term Removed" | US-PGPUB; USPAT | OR | ON | 2019/04/15 11:03 |

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Doc description: Information Disclosure Statement (IDS) Filed

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**( Not for submission under 37 CFR 1.99)**

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|---|---|
| Application Number | 15912901 |
| Filing Date | 2018-03-06 |
| First Named Inventor | Jon Hee Lee et al. |
| Art Unit | 3618 |
| Examiner Name | James M. Dolak |
| Attorney Docket Number | 34757-2184 |

**U.S.PATENTS** Remove

| Examiner Initial* | Cite No | Patent Number | Kind Code[1] | Issue Date | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear |
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| Examiner Name | James M. Dolak |
| Attorney Docket Number | 34757-2184 |

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| | Examiner Name | James M. Dolak |
| | Attorney Docket Number | 34757-2184 |

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| Examiner Name | James M. Dolak |
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| Examiner Initial* | Cite No | Publication Number | Kind Code[1] | Publication Date | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear |
|---|---|---|---|---|---|---|
| | 1 | 20010033069 | A1 | 2001-10-25 | Ivers | |
| | 2 | 20020109321 | A1 | 2002-08-15 | Turner et al. | |
| | 3 | 20030025304 | A1 | 2003-02-06 | Haeggberg | |
| | 4 | 20060001226 | A1 | 2006-01-05 | Refsum | |
| | 5 | 20060131841 | A1 | 2006-06-22 | Huang | |

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

| INFORMATION DISCLOSURE STATEMENT BY APPLICANT ( Not for submission under 37 CFR 1.99) | | |
|---|---|---|
| | Application Number | 15912901 |
| | Filing Date | 2018-03-06 |
| | First Named Inventor | Jon Hee Lee et al. |
| | Art Unit | 3618 |
| | Examiner Name | James M. Dolak |
| | Attorney Docket Number | 34757-2184 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 6 | 20060290107 | A1 | 2006-12-28 | Powers | |
| | 7 | 20070001429 | A1 | 2007-01-04 | Maciejczyk | |
| | 8 | 20070085303 | A1 | 2007-04-19 | Cheng | |
| | 9 | 20070090619 | A1 | 2007-04-26 | Lundh | |
| | 10 | 20070114738 | A1 | 2007-05-24 | Jones et al. | |
| | 11 | 20080224451 | A1 | 2008-09-18 | Vegt | |
| | 12 | 20080231022 | A1 | 2008-09-25 | Hu et al. | |
| | 13 | 20090302578 | A1 | 2009-12-10 | White et al. | |
| | 14 | 20140191483 | A1 | 2014-07-10 | Rolicki et al. | |
| | 15 | 20160046315 | A1 | 2016-02-18 | Zehfuss et al. | |

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**( Not for submission under 37 CFR 1.99)**

| | |
|---|---|
| Application Number | 15912901 |
| Filing Date | 2018-03-06 |
| First Named Inventor | Jon Hee Lee et al. |
| Art Unit | 3618 |
| Examiner Name | James M. Dolak |
| Attorney Docket Number | 34757-2184 |

| Examiner Initial* | Cite No | Foreign Document Number[3] | Country Code[2] i | Kind Code[4] | Publication Date | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear | T[5] |
|---|---|---|---|---|---|---|---|---|
| | 1 | 1978264 | CN | A | 2007-06-13 | HAOHAIZI CHILDREN S ARTICLES C | (Abstract) | ☒ |
| | 2 | 2784272 | CN | Y | 2006-05-31 | GOODBABY CHILD PRODUCTS CO LTD | (Abstract) | ☒ |
| | 3 | 2918181 | CN | Y | 2007-07-04 | DONGGUAN LIAOBUQI DAILY PRODUC | (Abstract) | ☒ |
| | 4 | 2253093 | ES | A1 | 2006-05-16 | PLAY SA | (Abstract) | ☒ |
| | 5 | 2309203 | GB | A | 1997-07-23 | JANE SA | | ☐ |
| | 6 | 2005/105545 | WO | A1 | 2005-11-10 | STEPHANIE ROHL | | ☐ |
| | 7 | 2005/105546 | WO | A1 | 2005-11-10 | STEPHANIE ROHL | | ☐ |
| | 8 | 2010/065884 | WO | A1 | 2010-06-10 | DYNAMIC BRANDS LLC | | ☐ |
| | 9 | 2014/042524 | WO | A1 | 2014-03-20 | WF INTERNATIONAL HOLDING BV | | ☐ |

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**( Not for submission under 37 CFR 1.99)**

| | |
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| Application Number | 15912901 |
| Filing Date | 2018-03-06 |
| First Named Inventor | Jon Hee Lee et al. |
| Art Unit | 3618 |
| Examiner Name | James M. Dolak |
| Attorney Docket Number | 34757-2184 |

| Examiner Initials* | Cite No | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published. | T[5] |
|---|---|---|---|
| | 1 | European Search Report and Search Opinion for European Application No. 09831215, dated November 4, 2013 (7pgs). | |
| | 2 | Extended European Search report issued in EP Application No. 17161947.1, mailed August 29, 2017 (9 pages). | |
| | 3 | International Search Report and Written Opinion for International Application No. PCT/US2009/066817, dated January 29, 2010 (6 pages). | |
| | 4 | International Preliminary Report on Patentability for International Application No. PCT/US2009/066817, dated June 7, 2011 (5 pages). | |
| | 5 | Office Action from Australian Patent Application 2009322149, dated April 1, 2014 (5pgs). | |
| | 6 | Office Action from Australian Patent Application No. 2009322149, dated December 2, 2014 (4pgs). | |
| | 7 | Office Action from Canadian Patent Application No. 2,745,914, dated December 17, 2015 (3pgs). | |
| | 8 | Office Action from Chinese Patent Application No. 200980148829.3 dated October 31, 2012 (17pgs., including 8 pgs. English translation). | |
| | 9 | Office Action from Chinese Patent Application No. 200980148829.3, dated June 8, 2013 (11 pgs. including, 5 pgs. English translation). | |
| | 10 | Office Action from Chinese Patent Application No. 200980148829.3, dated November 18, 2013 (5pgs, including 2pg English translation). | |

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT ( Not for submission under 37 CFR 1.99) | | |
|---|---|---|
| | Application Number | 15912901 |
| | Filing Date | 2018-03-06 |
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| | Art Unit | 3618 |
| | Examiner Name | James M. Dolak |
| | Attorney Docket Number | 34757-2184 |

| | | |
|---|---|---|
| | 11 | Office Action from Chinese Patent Application No. 201410187239.4, dated September 6, 2015 (9pgs, including 4 pg. English translation) |
| | 12 | Office Action from European Patent Application No. 09831215, dated January 13, 2016. (5pgs) |

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**EXAMINER SIGNATURE**

| Examiner Signature | /JAMES M DOLAK/ | Date Considered | 04/15/2019 |
|---|---|---|---|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

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| Application Number | 15912901 |
| Filing Date | 2018-03-06 |
| First Named Inventor | Jon Hee Lee et al. |
| Art Unit | 3618 |
| Examiner Name | James M. Dolak |
| Attorney Docket Number | 34757-2184 |

## CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

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**OR**

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

## SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

| | | | |
|---|---|---|---|
| Signature | /James M. Hannon/ | Date (YYYY-MM-DD) | 2018-06-29 |
| Name/Print | James M. Hannon | Registration Number | 48,565 |

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**( Not for submission under 37 CFR 1.99)**

| | |
|---|---|
| Application Number | 15912901 |
| Filing Date | 2018-03-06 |
| First Named Inventor | John Hee Lee |
| Art Unit | 3618 |
| Examiner Name | James M. Dolak |
| Attorney Docket Number | 34757-2184 |

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| Examiner Initial* | Cite No | Patent Number | Kind Code[1] | Issue Date | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear |
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|---|---|---|---|---|---|---|
| | 1 | 20100140902 | A1 | 2010-06-10 | Zehfuss | Corresponds to CN 103921830 A. |
| | 2 | 20140333039 | A1 | 2014-11-13 | Zehfuss | Corresponds to CN 102256856 A. |

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|---|---|---|---|---|---|---|---|---|
| | 1 | 102256856 | CN | A | 2011-11-23 | DYNAMIC BRANDS LLC | Corresponds to US 2014/0333039 A1. | |
| | 2 | 103909960 | CN | A | 2014-07-09 | KOLCRAFT ENTPR INC | Corresponds to US 2014/0191483 A1 (previoulsy submitted). | |

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT ( Not for submission under 37 CFR 1.99) | | |
|---|---|---|
| | Application Number | 15912901 |
| | Filing Date | 2018-03-06 |
| | First Named Inventor | John Hee Lee |
| | Art Unit | 3618 |
| | Examiner Name | James M. Dolak |
| | Attorney Docket Number | 34757-2184 |

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|---|---|---|---|---|---|---|---|---|
| | 3 | 103921830 | CN | A | 2014-07-16 | DYNAMIC BRANDS LLC | Corresponds to US 2010/0140902 A1. | |
| | 4 | 201626448 | CN | U | 2010-11-10 | GE LUO | | |
| | 5 | 201646823 | CN | U | 2010-11-24 | GOODBABY CHILD PRODUCTS CO LTD | | |

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|---|---|---|---|
| | 1 | OFFICE ACTION issued in Chinese Application No. 201710169826.4, dated October 31, 2018, 11 pages. | |

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| Examiner Signature | /JAMES M DOLAK/ | Date Considered | 04/15/2019 |
|---|---|---|---|

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| | | | |
|---|---|---|---|
| Signature | /James M. Hannon/ | Date (YYYY-MM-DD) | 2018-11-20 |
| Name/Print | James M. Hannon | Registration Number | 48565 |

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.M.D/

# Electronic Acknowledgement Receipt

| | |
|---|---|
| **EFS ID:** | 36764382 |
| **Application Number:** | 15912901 |
| **International Application Number:** | |
| **Confirmation Number:** | 8011 |
| **Title of Invention:** | REMOVABLE SEAT ATTACHMENT FOR A STROLLER |
| **First Named Inventor/Applicant Name:** | Jon Hee Lee |
| **Customer Number:** | 134811 |
| **Filer:** | James Michael Hannon |
| **Filer Authorized By:** | |
| **Attorney Docket Number:** | 34757-2184 |
| **Receipt Date:** | 02-AUG-2019 |
| **Filing Date:** | 06-MAR-2018 |
| **Time Stamp:** | 10:21:15 |
| **Application Type:** | Utility under 35 USC 111(a) |

## Payment information:

| | |
|---|---|
| Submitted with Payment | no |

## File Listing:

| Document Number | Document Description | File Name | File Size(Bytes)/ Message Digest | Multi Part /.zip | Pages (if appl.) |
|---|---|---|---|---|---|
| 1 | Drawings-only black and white line drawings | Replacement_sheet_fig8a.pdf | 260034<br>411d6361aebb8664748c57a95cf0e474ad1f 7540 | no | 1 |

**Warnings:**

| Information: | | | | | |
|---|---|---|---|---|---|
| 2 | Amendment/Req. Reconsideration-After Non-Final Reject | Response.pdf | 171882<br>62448aa6f9a2793203d6e9ac83e8872074836402 | no | 16 |
| Warnings: | | | | | |
| Information: | | | | | |
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**New Applications Under 35 U.S.C. 111**

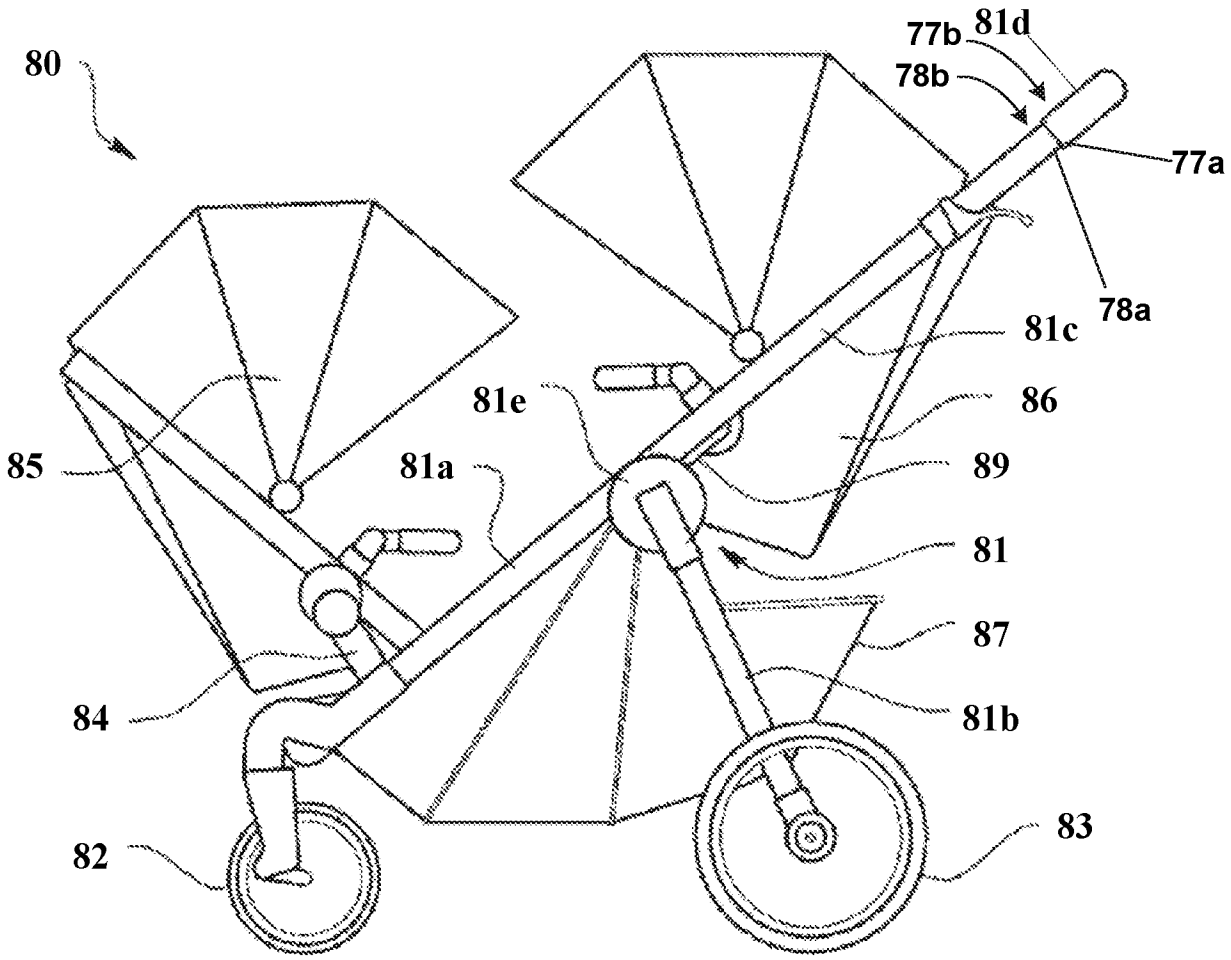
**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

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# FIGURE 8A

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | |
|---|---|---|
| In re Application of: | ) | |
| | ) | |
| **John Hee Lee, et al.** | ) | Confirmation No.: **8011** |
| | ) | |
| Application No.: **15/912,901** | ) | Art Unit: **3618** |
| | ) | |
| Filed: **March 6, 2018** | ) | Examiner: **James M. Dolak** |
| | ) | |
| For: **Removable Seat Attachment for a Stroller** | ) | |
| | ) | |
| | ) | |
| | ) | |

## AMENDMENT AND RESPONSE TO NON-FINAL OFFICE ACTION

**Via EFS-Web**
**Mail Stop Amendment**
Commissioner for Patents
Alexandria, VA 22313-1450

Dear Examiner Dolak:

Responsive to the Non-final Office Action dated May 2, 2019, Applicant submits the following amendments and remarks. In light of these amendments to the claims and in view of the submitted remarks, Applicant respectfully asserts that all of the claims of the patent application are patentable, and that the application be allowed.

**Amendments to the Drawings** begin on page 2 of this paper.

**Amendments to the Specification** begin on page 3 of this paper.

**Amendments to the Claims** are reflected in the listing of claims, which begins on page 4 of this paper.

**Remarks** begin on page 10 of this paper.

I hereby certify that this correspondence is being electronically filed via EFS-WEB to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Attn: Examiner Dolak, GAU 3618, on **August 2, 2019**.

/James M. Hannon/
James M. Hannon
Reg. No. 48,565

## AMENDMENTS TO THE DRAWINGS

Please enter the amended drawings as described below. These amendments to the drawings are supported by the specification and drawings as filed and do not introduce new matter.

Figure 8A has been amended to show the claimed first end and second end of the handle in claim 12 and the end of the first and second upper tube support frames in claims 14 and 18. The amendments to Figure 8A are supported by the specification and drawings, as filed, do not introduce new matter. A replacement sheet for Figure 8A is being filed together with this preliminary amendment.

## AMENDMENTS TO THE SPECIFICATION

Please amend the specification as shown below. The amendments to the specification are supported by the application as-filed and do not introduce new matter.

**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 seat attachment housing 1105 discussed below in Figure 11) and a distal second end coupled to the right front wheel support frame 81a (either directly of via the second seat attachment housing 1110 discussed below in Figure 11). In certain example embodiments, each front wheel support frame 81a can be fixedly coupled or rotatably coupled to its corresponding upper tube support frame 81c. Further, in certain example embodiments, the left upper tube support frame 81c, handle 81d, and right upper tube support frame 81c 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 81c, handle 81d, and right upper tube support frame 81c can be separate pieces of the same or different material that are coupled to one another.

## AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. This listing of claims will replace all prior versions and listing of claims for this application.

1. (Currently Amended) 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 adapter removably 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 adapter removably coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position;

wherein a second seat is ~~configured to be~~ removably coupled to the first seat attachment adapter and the second seat attachment adapter to positioned the second seat at a fourth vertical position that is below the first vertical position.

2-3. (Canceled)

4. (Previously Presented) The stroller of claim 1, wherein each of the first seat attachment adapter and the second seat attachment adapter has a first end and a distal second end.

5. (Canceled)

6. (Previously Presented) The stroller of claim 4, wherein the second end is releasably connected to the second seat.

7. (Currently Amended) The stroller of claim [[3]]1, wherein the first seat is one of a baby seat, a car seat, a stroller seat, a bassinet, a baby carrier, or a pram and the second seat is one of a second baby seat, a second car seat, a second stroller seat, a second bassinet, a second baby carrier, or a second pram.

8. (Original) 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.

9. (Original) The stroller of claim 1, wherein the second vertical position and the third vertical position are at a same vertical height.

10. (Currently Amended) The stroller of claim 1, wherein the stroller frame comprises:

a first upper tube support frame;

a second upper tube support frame;

a first front wheel support frame rotatable~~configured to rotate~~ with respect to the first upper tube support frame;

a second front wheel support frame rotatable~~configured to rotate~~ with respect to the second upper tube support frame;

a first back wheel support frame rotatable~~configured to rotate~~ with respect to the first upper tube support frame; and

a second back wheel support frame rotatable~~configured to rotate~~ with respect to the second upper tube support frame.

11. (Currently Amended) 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 adapter is removably coupled to the first front wheel support frame, and wherein the second seat attachment adapter is removably coupled to the second front wheel support frame.

12. (Original) The stroller of claim 10, further comprising a handle comprising a first end coupled to the first upper tube support frame and a distal second end coupled to the second upper tube support frame.

13. (Canceled)

14. (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 rotatable~~configured to rotate~~ with respect to the first upper tube support frame;

a second front wheel support frame rotatable~~configured to rotate~~ with respect to the second upper tube support frame;

at least one back wheel support frame; and

a stroller handle provided along an end of the first upper tube support frame and the second upper tube support frame;

a first front wheel operably coupled to the first front wheel support frame;

a second front wheel operably coupled to the second front wheel support frame;

a plurality of back wheels operably coupled to the at least one back wheel support frame;

a first seat operably coupled along the first upper tube support frame and the second upper tube support frame ~~and configured to hold a first child in the stroller~~;

a first seat attachment adapter removably coupled [[to]]along the first front wheel support frame;

a second seat attachment adapter removably coupled [[to]]along the second front wheel support frame; and

a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter ~~and configured to hold a second child in the stroller~~.

15. (Original) The stroller of claim 14, 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.

16. (Original) The stroller of claim 14, wherein the first seat is removably coupled along the stroller frame.

17. (Original) The stroller of claim 14, further comprising:

a third seat attachment adapter coupled to the first upper tube support frame; and

a fourth seat attachment adapter coupled to the second upper tube support frame;

wherein the first seat is removably coupled to the third seat attachment adapter and the fourth seat attachment adapter.

18. (Currently Amended) A stroller, comprising:

a stroller frame comprising:

a first upper tube support frame;

a second upper tube support frame;

a front wheel support frame rotatable~~configured to rotate~~ with respect to the first upper tube support frame and the second upper tube support frame;

at least one back wheel support frame; and

a stroller handle provided along an end of the first upper tube support frame and an end of the second upper tube support frame;

at least one front wheel operably coupled to the front wheel support frame;

at least one back wheel operably coupled to the at least one back wheel support frame;

a first seat attachment adapter removably coupled [[to]]along the front wheel support frame;

a second seat attachment adapter removably coupled [[to]]along the front wheel support frame;

a third seat attachment adapter coupled to the first upper tube support frame;

a fourth seat attachment adapter coupled to the second upper tube support frame;

a first seat removably coupled along the third seat attachment adapter and the fourth seat attachment adapter~~ and configured to hold a first child in the stroller~~; and

a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter~~ and configured to hold a second child in the stroller~~.

19. (Original) The stroller of claim 18, wherein the at least one back wheel support frame is rotatable with respect to the first upper tube support frame and the second upper tube support frame.

20. (Canceled)

21. (New) The stroller of claim 10, further comprising:

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

a second seat attachment housing disposed along 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, wherein the first seat attachment adapter is removably coupled to the first seat attachment housing, and wherein the second seat attachment adapter is removably coupled to the second seat attachment housing.

22. (New) The stroller of claim 10, further comprising:

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

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

wherein the first seat attachment adapter is removably coupled to the first seat attachment housing, and wherein the second seat attachment adapter is removably coupled to the second seat attachment housing.

23. (New) The stroller of claim 14, further comprising:

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

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

wherein the first seat attachment adapter is removably coupled to the first seat attachment housing, and the second seat attachment adapter is removably coupled to the second seat attachment housing.

24. (New) The stroller of claim 14, further comprising:

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

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

wherein the first seat attachment adapter is removably coupled to the first seat attachment housing, and wherein the second seat attachment adapter is removably coupled to the second seat attachment housing.

25. (New) The stroller of claim 18, further comprising:

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

a second seat attachment housing disposed along the front wheel support frame; wherein the first seat attachment adapter is removably coupled to the first seat attachment housing, and the second seat attachment adapter is removably coupled to the second seat attachment housing.

## REMARKS

Applicant and the undersigned thank Examiner Dolak for the careful review of this application. In the Office Action, claims 1-4, 6-12 and 14-19 were rejected. Claims 1, 7, 10, 11, 14, and 18 have been amended herein. Claims 2 and 3 have been canceled herein without prejudice to or disclaimer of the subject matter therein. Claims 21-25 have been added herein. The amendments to the claims, drawings, and specification are supported by the specification and drawings as-filed and do not introduce new matter. Upon entry of these amendments, claims 1, 4, 6-12, 14-19, and 21-25 remain pending in the application, with claims 1, 14, and 18 being independent claims. In view of these amendments and remarks, Applicant respectfully asserts that the rejections are now made moot and reconsideration and allowance of the application is respectfully requested.

Unless explicitly stated otherwise, none of the amendments to the claims were made for reasons substantially related to the statutory requirements for patentability. Furthermore, unless otherwise stated, the amendments to the claims were made simply to express that which had been implicit in the claims as originally worded and therefore, are not narrowing amendments that would create any prosecution history estoppel.

### I. Drawing Objections

The drawings were objected to under 37 C.F.R. § 1.83(a) for not showing every feature of the invention specified in the claims. Specifically, the Examiner objected to the drawings not including reference numbers for the first and second ends of the handle, as recited in claim 12, and the ends of the first and second upper tube support frames, as recited in claims 14 and 18. While Applicant disagrees that all elements must be designated with a reference number in the drawings, Applicant has amended the drawings to include reference numbers for these particular elements. Figure 8A has been amended to include reference numerals for the identified elements. The amendments to Figure 8A do not introduce new matter. A replacement sheet for Figure 8A is being submitted with this response. In response to the amendments to Figure 8A, the specification has also been amended to include the new reference numbers. No new matter is introduced by way of the amendments to the specification. Accordingly, Applicant respectfully requests that the objection to the drawings be withdrawn.

## II. Claim Rejections Under 35 U.S.C. §112

Claims 1-4, 6-12, and 14-19 were rejected under 35 U.S.C. §112(b) for failing to particularly point out and distinctly claim the subject matter which the inventor regards as the invention. More specifically, the Examiner appears to object to the user of the phrase "configured to". While Applicant disagrees with the Examiner's assertion that such language is indefinite and not a positive limitation, Applicant notes that this rejection is moot in view of the amendments. The language alleged to be indefinite in the claims has not been removed because the rejection is proper, but solely to move forward the prosecution of this case. Applicant reserves the right to reintroduce such "configured to" language in this or any continuation or divisional application and will address any further objections to that language, including pointing out the number of areas where the MPEP supports the use of this language, at that time. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-4, 6-12, and 14-19 under 35 U.S.C. §112(b).

## III. Claim Rejections Under 35 U.S.C. §102

Claims 1-4 and 7-10 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application Publication No. 7,475,900 to Cheng ("Cheng"). Claims 2 and 3 have been canceled herein without prejudice to or disclaimer of the subject matter therein. Therefore, the rejection of claims 2 and 3 is moot. The rejection of the pending claims is traversed.

The rejection of independent claims 1, 4, and 7-10 is traversed. "A person shall be entitled to a patent unless … (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country before the invention thereof by the applicant for a patent." 35 U.S.C. §102(a). The U.S. Patent and Trademark Office has the burden under 35 U.S.C. §102 to establish a *prima facie* case of anticipation. A *prima facie* case is made out under 35 U.S.C. §102 if, within 1 year of the filing date, the invention, or an obvious variant thereof, is described in a "printed publication" whose authorship differs in any way from the inventive entity. *In re Katz,* 687 F.2d 450 (CCPA 1982). "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." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the … claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added).

Furthermore, the elements must be arranged as required by the claim. *In re Bond,* 910 F.2d 831 (Fed. Cir. 1990). Applicant submits that Cheng fails to teach or suggest each and every element of independent claims 1. Accordingly, Applicant asserts that Cone fails to satisfy the requirements for a *prima facie* case of anticipation with regard to the independent claim.

A. Independent Claim 1

While Applicant believes that claim 1, as originally presented, is patentable over the cited art of record, Applicant has amended claim 1 to move forward prosecution of this case. Specifically, claim 1 has been amended to recite, in pertinent part, "a first seat attachment adapter removably 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 adapter removably coupled to the stroller frame at a third vertical position of the stroller frame that is below the first vertical position; wherein a second seat is ~~configured to be~~ 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". (Amendments shown). Applicant asserts that Cheng fails to teach or suggest, inter alia, the first and second seat attachment adapters being removably coupled to the stroller frame, and the second seat being positioned at a fourth vertical position that is below the first vertical position of first seat, as recited in claim 1.

Cheng appears to be generally directed to a baby stroller frame for connecting two seats to the stroller frame. *See* Cheng, Abstract. With reference to Figure 4 of Cheng, which is relied upon by the Examiner, Cheng teaches "a pair of front extension arms (411) and a pair of rear extension arms (412)." Cheng, col. 3:23-25. Cheng further teaches that "the front extension arms (411) and the pair of rear extension arms (412) [have] support bases (410) and (420), respectively." Cheng, col. 3:25-27. Cheng also teaches that "the support bases (410) and (420) [are] furnished at the ends for detachably securing at least one of a front seat (71) and a rear seat (72)." Cheng, col. 3:27-29.

However, Cheng fails to teach or suggest that the front extension arms 411 and/or the support bases 410 are removably coupled to the stroller frame such that they can be removed from the stroller frame when the second seat is not being used. Further, Cheng fails to teach or suggest that the position of the second seat, when removably coupled to the first and second seat attachment adapters, is positioned at a vertical position that is below the vertical position of the first seat on the stroller frame. In addition, none of the other cited references make up for this lack of teaching in Cheng. Therefore, Cheng fails to teach or suggest each and every element of independent claim 1

and fails to satisfy the requirements for anticipation. Accordingly, reconsideration and withdrawal of this rejection of claim 1 is respectfully requested.

## IV. Claim Rejections Under 35 U.S.C. §103

Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng in view of U.S. Patent No. 6,286,844 to Cone, II et al. ("Cone"). Claims 11, 12, and 14-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng in view of U.S. Design Patent Application No. D593,459 to Liao ("Liao"). The rejection of the claims under 35 U.S.C. §103 is traversed.

A. Independent Claims 14 and 18

The rejection of claims 14 and 18 is traversed. The U.S. Patent and Trademark Office has the burden to establish a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967), *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598-99 (Fed. Cir. 1988). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Claims for an invention are not *prima facie* obvious if the primary references do not suggest all elements of the claimed invention and the prior art does not suggest modifications that would bring the primary reference into conformity with the application claims. *In re Fritch*, 23 U.S.P.Q.2d, 1780 (Fed. Cir. 1992); *In re Laskowski*, 871 F.2d 115 (Fed. Cir. 1989). Thus, it is clear that to establish a rejection under 35 U.S.C. §103, the cited references must recite each element of the claims.

While Applicant believes that claims 14 and 18, as originally presented, are patentable over the cited art of record, Applicant has amended claims 14 and 18 to move forward prosecution of this case. Specifically, claim 14 has been amended to recite, in pertinent part, "a first front wheel support frame rotatable~~configured to rotate~~ with respect to the first upper tube support frame; a second front wheel support frame rotatable~~configured to rotate~~ with respect to the second upper tube support frame; at least one back wheel support frame; ... a first seat operably coupled along the first upper tube support frame and the second upper tube support frame ~~and configured to hold a first child in the stroller~~; a first seat attachment adapter removably coupled [[to]]along the first front wheel support frame; a second seat attachment adapter removably coupled [[to]]along the second

front wheel support frame; and a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter ~~and configured to hold a second child in the stroller~~." (Amendments shown). Claim 18 has been amended to recite, in pertinent part, "a front wheel support frame rotatable~~configured to rotate~~ with respect to the first upper tube support frame and the second upper tube support frame; ... a first seat attachment adapter removably coupled [[to]]along the front wheel support frame; a second seat attachment adapter removably coupled [[to]]along the front wheel support frame; ... a first seat removably coupled along the third seat attachment adapter and the fourth seat attachment adapter ~~and configured to hold a first child in the stroller~~; and a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter ~~and configured to hold a second child in the stroller~~." (Amendments shown). Applicant asserts that neither Cheng nor Liao teaches, suggests, or makes obvious, *inter alia*, the first and second seat attachment adapters being removably coupled to the stroller frame. In addition, the cited references fail to teach, suggest, or make obvious, *inter alia*, the handle being coupled to an end of the first and second upper tube support frames, as recited in claims 14 and 18. Further, the cited art fails to teach, suggest, or make obvious, inter alia, the front wheel support frame being rotatable with respect to the first upper tube support frame, as recited in claims 14 and 18.

In the Office Action, the Examiner asserts that Cheng teaches these elements of claims 14 and 18. *See Office Action*, pp. 13 and 16. However, as discussed above, Cheng teaches "a pair of front extension arms (411) and a pair of rear extension arms (412)." Cheng, col. 3:23-25. Cheng further teaches that "the front extension arms (411) and the pair of rear extension arms (412) [have] support bases (410) and (420), respectively." Cheng, col. 3:25-27. Cheng also teaches that "the support bases (410) and (420) [are] furnished at the ends for detachably securing at least one of a front seat (71) and a rear seat (72)." Cheng, col. 3:27-29. However, Cheng fails to teach or suggest that the front extension arms 411 and/or the support bases 410 are removably coupled to the stroller frame such that they can be removed from the stroller frame when the second seat is not being used, as recited in claims 14 and 18.

In addition, the Examiner asserts that the first and second upper tube support frames are shown and described elements 411 and 421 of Cheng. *See Office Action*, p. 12. However, Cheng teaches that the stroller handle 23 is coupled to the push bar 10. Thus, elements 411 and 421 do not satisfy the requirements of the first upper tube support frame and the second upper tube support frame of claims 14 and 18.

Further, none of the references teaches or suggests that the front wheel support frame is rotatable with respect to the upper tube support frame, as recited in claims 14 and 18. The Examiner asserts that element 31 is the front wheel support frame, that elements 411 and 421 are the upper tube support frames and that element 32 is the rear tube support frame. *See Office Action,* p. 12. As shown above, element 10 should be properly identified as the upper tube support frame given that it's end is coupled to the stroller handle. In view of that, as shown in Figure 6 of Cheng, element 31 is rotatable with respect to element, 32, which the Examiner alleges is the back wheel support frame. Element 31 does not rotate which respect to element 10 of Cheng.

Thus, the combination of Cheng, Liao, and/or Cone fails to teach or suggest each and every element of independent claims 14 and 18. Therefore, the combination of cited art fails to satisfy the *prima facie* requirements of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of independent claims 14 and 18.

## V. New Claims 21-25

New claims 21-25 have been added herein. The new claims are supported by the specification and drawings as filed and do not introduce new matter. Claims 21-25 are patentable over the cited references at least for the fact that the independent claim from which they ultimately depend, claims 1, 14, or 18, are patentable over the cited references. Accordingly, Applicant respectfully requests that claims 21-25 be passed to allowance.

## VI. NO WAIVER

All of Applicant's arguments and amendments presented herein are without prejudice or disclaimer. Additionally, Applicant has merely discussed example reasons that the pending claims are allowable. Other reasons may exist and Applicant reserves the right to discuss these additional reasons in a later response or on appeal, if appropriate, in this or another related application. By not responding to additional statements made by the Examiner, such as what is taught by each cited reference or alleged to have been obvious in view of the cited references, Applicant does not acquiesce to the Examiner's additional statements. The example reasons discussed by Applicant are sufficient to overcome the mentioned rejections.

## CONCLUSION

The foregoing is submitted as a full and complete response to the Non-final Office Action with a Notification Date of May 2, 2019. Applicant and the undersigned thank Examiner Dolak for the consideration of these amendments and remarks. In view of the amendments to the claims and the submitted remarks, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections. Applicant further submits that the application is now in condition for allowance and earnestly solicits timely notice of the same. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the undersigned at the telephone number below.

It is not believed that extensions of time or fees for addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 19-5029.

If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any formalities that can be corrected by an Examiner's amendment, please contact the undersigned in the Atlanta Metropolitan Area at 404-853-8013.

Respectfully submitted,

**/James M. Hannon/**

James M. Hannon
Reg. No. 48,565

DATE: **August 2, 2019**
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| PATENT APPLICATION FEE DETERMINATION RECORD<br>Substitute for Form PTO-875 | Application or Docket Number<br>15/912,901 | Filing Date<br>03/06/2018 | ☐ To be Mailed |
|---|---|---|---|

**ENTITY:** ☑ LARGE ☐ SMALL ☐ MICRO

## APPLICATION AS FILED - PART I

| FOR | (Column 1)<br>NUMBER FILED | (Column 2)<br>NUMBER EXTRA | | RATE ($) | FEE ($) |
|---|---|---|---|---|---|
| ☐ BASIC FEE<br>(37 CFR 1.16(a), (b), or (c)) | N/A | N/A | | N/A | |
| ☐ SEARCH FEE<br>(37 CFR 1.16(k), (i), or (m)) | N/A | N/A | | N/A | |
| ☐ EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q)) | N/A | N/A | | N/A | |
| TOTAL CLAIMS<br>(37 CFR 1.16(i)) | minus 20 = | * | | x $100 = | |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h)) | minus 3 = | * | | x $460 = | |
| ☐ APPLICATION SIZE FEE (37 CFR 1.16(s)) | If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). | | | | |
| ☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) | | | | | |
| * If the difference in column 1 is less than zero, enter "0" in column 2. | | | | TOTAL | |

## APPLICATION AS AMENDED - PART II

| | | (Column 1) | | (Column 2) | (Column 3) | | | |
|---|---|---|---|---|---|---|---|---|
| AMENDMENT | 08/02/2019 | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | | RATE ($) | ADDITIONAL FEE ($) |
| | Total<br>(37 CFR 1.16(i)) | * 20 | Minus | ** 20 | = 0 | | x $100 = | 0 |
| | Independent<br>(37 CFR 1.16(h)) | * 3 | Minus | *** 3 | = 0 | | x $460 = | 0 |
| | ☐ Application Size Fee (37 CFR 1.16(s)) | | | | | | | |
| | ☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) | | | | | | | |
| | | | | | | | TOTAL ADD'L FEE | 0 |

| | | (Column 1) | | (Column 2) | (Column 3) | | | |
|---|---|---|---|---|---|---|---|---|
| AMENDMENT | | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | | RATE ($) | ADDITIONAL FEE ($) |
| | Total<br>(37 CFR 1.16(i)) | * | Minus | ** | = | | x $0 = | |
| | Independent<br>(37 CFR 1.16(h)) | * | Minus | *** | = | | x $0 = | |
| | ☐ Application Size Fee (37 CFR 1.16(s)) | | | | | | | |
| | ☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) | | | | | | | |
| | | | | | | | TOTAL ADD'L FEE | |

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|---|---|
| * If the entry in column 1 is less than the entry in column 2, write "0" in column 3. | LIE |
| ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". | /TRACEY M YOUNG/ |
| *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". | |
| The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1. | |

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

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# NOTICE OF ALLOWANCE AND FEE(S) DUE

134811 7590 03/16/2020
Eversheds Sutherland (US) LLP/NWL
999 Peachtree Street
Suite 2300
Atlanta, GA 30309

| EXAMINER | |
|---|---|
| DOLAK, JAMES M | |
| ART UNIT | PAPER NUMBER |
| 3618 | |

DATE MAILED: 03/16/2020

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 15/912,901 | 03/06/2018 | Jon Hee Lee | 34757-2184 | 8011 |

TITLE OF INVENTION: REMOVABLE SEAT ATTACHMENT FOR A STROLLER

| APPLN. TYPE | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|---|---|---|---|---|---|---|
| nonprovisional | UNDISCOUNTED | $1000 | $0.00 | $0.00 | $1000 | 06/16/2020 |

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

**HOW TO REPLY TO THIS NOTICE:**

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.**

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

134811 7590 03/16/2020
Eversheds Sutherland (US) LLP/NWL
999 Peachtree Street
Suite 2300
Atlanta, GA 30309

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

| (Typed or printed name) |
|---|
| (Signature) |
| (Date) |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 15/912,901 | 03/06/2018 | Jon Hee Lee | 34757-2184 | 8011 |

TITLE OF INVENTION: REMOVABLE SEAT ATTACHMENT FOR A STROLLER

| APPLN. TYPE | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|---|---|---|---|---|---|---|
| nonprovisional | UNDISCOUNTED | $1000 | $0.00 | $0.00 | $1000 | 06/16/2020 |

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|---|---|---|
| DOLAK, JAMES M | 3618 | 280-650000 |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

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134811 7590 03/16/2020

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999 Peachtree Street
Suite 2300
Atlanta, GA 30309

| EXAMINER | |
|---|---|
| DOLAK, JAMES M | |
| ART UNIT | PAPER NUMBER |
| 3618 | |

DATE MAILED: 03/16/2020

**Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## Privacy Act Statement

**The Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

| Notice of Allowability | Application No. 15/912,901 | Applicant(s) Lee et al. | |
|---|---|---|---|
| | Examiner JAMES M DOLAK | Art Unit 3618 | AIA (FITF) Status No |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to 8/02/2019.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 1,4,6-9,12 and 14-19 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information , please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   **Certified copies:**

   a) ☐ All  b) ☐ Some  *c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   **Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☑ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☑ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/JAMES M DOLAK/
Primary Examiner, Art Unit 3618

## DETAILED ACTION

### *Notice of Pre-AIA or AIA Status*

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

### *Response to Amendment*

2. The reply filed on 8/02/2019 cancelled claims 2, 3, 5, 13, and 20, amended claims 1, 7, 10, 11, 14, and 18, and added new claims 21-25. Claims 1, 4, 6-12, 14-19, and 21-25 are currently pending herein.

## EXAMINER'S AMENDMENT

3. Authorization for this examiner's amendment was given in an interview with James H. Hannon (Applicant's representative) on 3/11/2020.

4. The application has been amended as follows:

***In the Claims:***

Cancel Claims 10, 11, and 21-25

Replace Claim 1, with the following:

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 rotatable with respect to the first upper tube support frame;

a second front wheel support frame rotatable with respect to the second upper tube support frame;

a first back wheel support frame 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 to the stroller frame at a first vertical position of the stroller frame;

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

a first seat attachment adapter removably 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 housing disposed along the second front wheel support frame;

a second seat attachment adapter removably 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 to position the second seat at a fourth vertical position that is below the first vertical position.

Replace Claim 12, line 1 with the following:

The stroller of claim 1, further comprising a handle comprising a first

Replace Claim 14, with the following:

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 rotatable with respect to the first upper tube support frame;

a second front wheel support frame rotatable with respect to the second upper tube support frame;

at least one back wheel support frame; and

a stroller handle provided along an end of the first upper tube support frame and the second upper tube support frame;

a first front wheel operably coupled to the first front wheel support frame;

a second front wheel operably coupled to the second front wheel support frame;

a plurality of back wheels operably coupled to the at least one back wheel support frame;

a first seat operably coupled along the first upper tube support frame and the second upper tube support frame;

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

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

a first seat attachment adapter removably coupled to the first seat attachment housing along the first front wheel support frame;

a second seat attachment adapter removably coupled to the second seat attachment housing along the second front wheel support frame; and

a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter.

Replace Claim 18, with the following:

A stroller, comprising:

a stroller frame comprising:

a first upper tube support frame;

a second upper tube support frame;

a front wheel support frame rotatable with respect to the first upper tube support frame and the second upper tube support frame;

at least one back wheel support frame; and

a stroller handle provided along an end of the first upper tube support frame and an end of the second upper tube support frame;

at least one front wheel operably coupled to the front wheel support frame;

at least one back wheel operably coupled to the at least one back wheel support frame;

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

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

a first seat attachment adapter removably coupled to the first seat attachment housing along the front wheel support frame;

a second seat attachment adapter removably coupled to the second seat attachment housing along the front wheel support frame;

a third seat attachment adapter coupled to the first upper tube support frame;

a fourth seat attachment adapter coupled to the second upper tube support frame;

a first seat removably coupled along the third seat attachment adapter and the fourth seat attachment adapter; and

a second seat removably coupled to the first seat attachment adapter and the second seat attachment adapter.

***Allowable Subject Matter***

5. Claims 1, 4, 6-9, 12, and 14-19, are allowed.

6. 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 rotatable with respect to the first upper tube support frame; a second front wheel support frame rotatable with respect to the second upper tube support frame; a first back wheel support frame 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 to the stroller frame at a first vertical position of the stroller frame; ***a first seat attachment housing disposed along the first front wheel support frame: a first seat attachment adapter removably 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 housing disposed along the second front wheel support frame; a second seat attachment adapter removably 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 to position the second seat at a fourth vertical position that is below the first vertical position***, as claimed in Claim 1 and similarly claimed in Claims 14 and 18 (emphasis added to allowable limitations not suggested or taught by the prior art).

7. The prior art discloses similar examples of strollers (see attached Notice of References cited). However, the prior art does not appear to teach or fairly suggest the combination of limitations of amended independent claim 1 as noted above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, and can be found on the attached Notice of References Cited.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M DOLAK whose telephone number is (571)270-7757. The examiner can normally be reached on 9-530 EST Monday-Friday.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J ALLEN SHRIVER can be reached on 303-297-4337. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES M DOLAK/
Primary Examiner, Art Unit 3618

| Notice of References Cited | Application/Control No. 15/912,901 | Applicant(s)/Patent Under Reexamination Lee et al. | |
|---|---|---|---|
| | Examiner JAMES M DOLAK | Art Unit 3618 | Page 1 of 1 |

**U.S. PATENT DOCUMENTS**

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | CPC Classification | US Classification |
|---|---|---|---|---|---|---|
| * | A | US-10293843-B2 | 05-2019 | Naslain; Yann | B62B5/082 | 1/1 |
| * | B | US-10556610-B2 | 02-2020 | Rolicki; Peter | B62B7/008 | 1/1 |
| * | C | US-10449987-B2 | 10-2019 | Gibson; Bryce | B62B7/06 | 1/1 |
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**FOREIGN PATENT DOCUMENTS**

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**NON-PATENT DOCUMENTS**

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

| Issue Classification | Application/Control No. | Applicant(s)/Patent Under Reexamination |
|---|---|---|
| | 15/912,901 | Lee et al. |
| | **Examiner** | **Art Unit** |
| | JAMES M DOLAK | 3618 |

| CPC | | | | | | |
|---|---|---|---|---|---|---|
| **Symbol** | | | | | **Type** | **Version** |
| B62B | / | 9 | / | 102 | F | 2013-01-01 |
| B62B | / | 7 | / | 006 | I | 2013-01-01 |
| B62B | / | 7 | / | 008 | I | 2013-01-01 |
| B62B | / | 7 | / | 14 | I | 2013-01-01 |
| B62B | / | 9 | / | 28 | I | 2013-01-01 |
| B62M | / | 1 | / | 38 | I | 2013-01-01 |
| B62K | / | 5 | / | 02 | I | 2013-01-01 |
| B62K | / | 27 | / | 003 | I | 2013-01-01 |
| B62B | / | 9 | / | 12 | I | 2013-01-01 |
| B62B | / | 7 | / | 145 | A | 2013-01-01 |
| B62B | / | 3 | / | 008 | A | 2013-01-01 |
| B62K | / | 13 | / | 00 | A | 2013-01-01 |

| CPC Combination Sets | | | | | | | |
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| **Symbol** | | | | | **Type** | **Set** | **Ranking** | **Version** |
| | / | | / | | | | | |

| NONE | | Total Claims Allowed: | |
|---|---|---|---|
| (Assistant Examiner) | (Date) | 13 | |
| /JAMES M DOLAK/<br>Primary Examiner, Art Unit 3618 | 11 March 2020 | O.G. Print Claim(s) | O.G. Print Figure |
| (Primary Examiner) | (Date) | 1 | 8A &11 |

U.S. Patent and Trademark Office — Part of Paper No.: 20200228

| Issue Classification | Application/Control No. | Applicant(s)/Patent Under Reexamination |
|---|---|---|
| | 15/912,901 | Lee et al. |
| | **Examiner** | **Art Unit** |
| | JAMES M DOLAK | 3618 |

| INTERNATIONAL CLASSIFICATION | | | | | |
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| **CLAIMED** | | | | | |
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| **NON-CLAIMED** | | | | | |
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| US ORIGINAL CLASSIFICATION | |
|---|---|
| **CLASS** | **SUBCLASS** |
| | |

| CROSS REFERENCES(S) | | | | | | |
|---|---|---|---|---|---|---|
| **CLASS** | **SUBCLASS (ONE SUBCLASS PER BLOCK)** | | | | | |
| | | | | | | |

| NONE | | **Total Claims Allowed:** | |
|---|---|---|---|
| (Assistant Examiner) | (Date) | 13 | |
| /JAMES M DOLAK/<br>Primary Examiner, Art Unit 3618 | 11 March 2020 | O.G. Print Claim(s) | O.G. Print Figure |
| (Primary Examiner) | (Date) | 1 | 8A &11 |

U.S. Patent and Trademark Office

Part of Paper No.: 20200228

| Issue Classification | Application/Control No. | Applicant(s)/Patent Under Reexamination |
|---|---|---|
| | 15/912,901 | Lee et al. |
| | **Examiner** | **Art Unit** |
| | JAMES M DOLAK | 3618 |

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

**CLAIMS**

| Final | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final | Original |
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| 2 | 4 | - | 13 | - | 22 | | | | | | | | | | |
| - | 5 | 8 | 14 | - | 23 | | | | | | | | | | |
| 3 | 6 | 9 | 15 | - | 24 | | | | | | | | | | |
| 4 | 7 | 10 | 16 | - | 25 | | | | | | | | | | |
| 5 | 8 | 11 | 17 | | | | | | | | | | | | |
| 6 | 9 | 12 | 18 | | | | | | | | | | | | |

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|---|---|---|---|
| NONE<br>(Assistant Examiner) | (Date) | **Total Claims Allowed:**<br>13 | |
| /JAMES M DOLAK/<br>Primary Examiner, Art Unit 3618<br>(Primary Examiner) | 11 March 2020<br>(Date) | O.G. Print Claim(s)<br>1 | O.G. Print Figure<br>8A &11 |

U.S. Patent and Trademark Office

Part of Paper No.: 20200228

| Search Notes | Application/Control No. | Applicant(s)/Patent Under Reexamination |
|---|---|---|
| | 15/912,901 | Lee et al. |
| | Examiner | Art Unit |
| | JAMES M DOLAK | 3618 |

| CPC - Searched* | | |
|---|---|---|
| Symbol | Date | Examiner |
| B62B7/008,00,006,14,142,145 | 04/15/2019 | JMD |
| B62B9/12,28,102 | 04/15/2019 | JMD |

| CPC Combination Sets - Searched* | | |
|---|---|---|
| Symbol | Date | Examiner |
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| US Classification - Searched* | | | |
|---|---|---|---|
| Class | Subclass | Date | Examiner |
| | | | |

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

| Search Notes | | |
|---|---|---|
| Search Notes | Date | Examiner |
| Inventor Search | 04/15/2019 | JMD |
| EAST text search | 04/15/2019 | JMD |
| Updated Search | 02/28/2020 | JMD |

| Interference Search | | | |
|---|---|---|---|
| US Class/CPC Symbol | US Subclass/CPC Group | Date | Examiner |
| ALL | See attached Search History | 03/11/2020 | JMD |

| | |
|---|---|
| /JAMES M DOLAK/ Primary Examiner.Art Unit 3618 | /JAMES M DOLAK/<br>Primary Examiner, Art Unit 3618 |

**EAST Search History**

**EAST Search History (Prior Art)**

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
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| | | (Simpson near2 (Stacy and Noel).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/12 08:16 |
| | | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:36 |
| | | (Lee near2 (Jon and Hee)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/08 17:36 |
| | | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/08 17:35 |
| | | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 10:24 |
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| | | S27 and ((wheel and seat) same add$7) | US-PGPUB; | OR | ON | 2012/06/28 23:15 |

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| | | | USPAT; USOCR; FPRS; EPO; JPO; DERWENT | | | |
| | | S10 and (seat near2 (attach$4 and convert$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:46 |
| L1 | 4053 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2020/02/28 20:49 |
| L2 | 2834 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2020/02/28 20:49 |
| L3 | 5847 | L1 or L2 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2020/02/28 20:49 |
| L4 | 1751101 | @pd>="20190823" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2020/02/28 21:02 |
| L5 | 97 | 3 and 4 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2020/02/28 21:02 |
| L6 | 97 | ("1239498" \| "1322788" \| "1418929" \| "1832770" \| "20020125662" \| "20040011884" \| "20050253348" \| "20050253431" \| "20050264064" \| "20060290107" \| "20070001410" \| "20070075510" \| "20070114738" \| "20070257526" \| "20080042476" \| "20080224451" \| "20090072520" \| "20090302556" \| "20090302578" \| "20100032925" \| "20100072731" \| "20100109270" \| "20100109293" \| "20100140902" \| "20100148553" \| "20100314925" \| "20110074195" \| "20110101742" \| "20110115264" \| "20120080244" \| "20120181779" \| "20130154215" \| "20140191483" \| "20150021872" \| "3173396" \| "3831960" \| "4310167" \| "4433869" \| "4893826" \| "4936629" \| "5022669" \| "5158319" \| "5301968" \| "5417449" \| "5556118" \| "5581843" \| "5653460" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2020/02/28 21:03 |

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| | | "5664795" \| "5722594" \| "6086087" \| "6135222" \| "6267406" \| "6312005" \| "6394470" \| "6454286" \| "6540239" \| "6698788" \| "6702306" \| "6877762" \| "6935652" \| "6938906" \| "6981709" \| "7059625" \| "7261308" \| "7338122" \| "7481439" \| "7497449" \| "7559606" \| "7597332" \| "7740313" \| "7770970" \| "7780184" \| "7789413" \| "7832756" \| "7854435" \| "7887129" \| "7891732" \| "7938433" \| "7971897" \| "7992889" \| "8029007" \| "8070179" \| "8128118" \| "8128119" \| "8157273" \| "8262107" \| "8276935" \| "8882134" \| "9056622" \| "9260127" \| "D326748" \| "D431798").PN. OR ("10556610").URPN. | | | | |
| L7 | 21 | ("20100140902" \| "20130087993" \| "20130154241" \| "20150159414" \| "20160046315" \| "7789402" \| "7832755" \| "8033554" \| "8231136" \| "8602441" \| "8905427" \| "8955869" \| "8967647" \| "9050987" \| "9399477" \| "9403550" \| "9493179" \| "9517787" \| "9616912" \| "9637154" \| "D747669").PN. OR ("10449987").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2020/02/28 22:17 |
| L8 | 1 | ("20180201293").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2020/02/28 22:19 |
| S1 | 0 | ("20100140902").PN. | USPAT; USOCR | OR | OFF | 2011/11/10 17:53 |
| S2 | 1 | ("20100140902").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2011/11/10 17:55 |
| S3 | 4 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/21 11:03 |
| S4 | 8 | ("20030025304" \| "20070001429" \| "20070114738" \| "5338096").PN. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/21 11:10 |
| S5 | 15 | ("3223431" \| "3915493" \| "3917312" \| "4886209" \| "5184835").PN. OR ("5338096").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/21 11:19 |
| S6 | 1 | ("7320471").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/21 11:26 |
| S7 | 3 | ("5653460" \| "6045145" \| "6378892").PN. OR ("7320471").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/21 11:26 |


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| S8 | 2837 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/27 15:43 |
| S9 | 37502244 | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:43 |
| S10 | 1861 | S8 and S9 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:44 |
| S11 | 1537 | S10 and seat | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:44 |
| S12 | 827 | S10 and (seat same attach$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:44 |
| S13 | 427 | S10 and (seat near2 attach$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:44 |
| S14 | 51 | S10 and (seat near2 (attach$4 and convert$4)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/27 15:46 |
| S15 | 2446 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/28 19:10 |
| S16 | 37502315 | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 19:17 |
| S17 | 1076 | S15 and S16 | US-PGPUB; USPAT; USOCR; | OR | ON | 2012/06/28 19:17 |


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| | | | FPRS; EPO; JPO; DERWENT | | | |
| S18 | 2837 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/28 19:17 |
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| S20 | 35 | S17 and S19 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 19:17 |
| S21 | 2902 | S17 or S19 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 19:20 |
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| S24 | 1076 | S22 and S23 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:15 |
| S25 | 2837 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/28 23:15 |
| S26 | 1861 | S25 and S23 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:15 |
| S27 | 2902 | S24 or S26 | US-PGPUB; USPAT; | OR | ON | 2012/06/28 23:15 |

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| | | | USOCR; FPRS; EPO; JPO; DERWENT | | | |
| S28 | 657 | S27 and ((wheel and seat) same attach$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:15 |
| S29 | 1 | ("6209892").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/28 23:16 |
| S30 | 44 | ("3829113" \| "4729572" \| "4768795" \| "4861105" \| "5056865" \| "5076599" \| "5146656" \| "5322343" \| "5676386" \| "5727798" \| "5820144" \| "5887889").PN. OR ("6209892").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:16 |
| S31 | 115 | S28 and expand$4 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:20 |
| S32 | 58 | ("5564786" \| "0733889" \| "6443467" \| "0329579" \| "5611560" \| "3235279" \| "0292933" \| "6017051" \| "0781495" \| "2305719" \| "1707186" \| "4989890" \| "6220621" \| "6676140" \| "1168896" \| "2517443" \| "20030075903" \| "0647165").PN. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:22 |
| S33 | 33 | ("2769482" \| "2857953" \| "2993702" \| "3235279" \| "3309101" \| "3330575" \| "3738700" \| "4725071" \| "5018754" \| "5263730" \| "5338096" \| "5417449" \| "5653460" \| "5664795" \| "5911432" \| "6045145" \| "6068087" \| "6378892" \| "D321850" \| "D359937").PN. OR ("6676140").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:24 |
| S34 | 16 | ("1560802" \| "5076579" \| "5123670" \| "5188389" \| "5224720" \| "5301963" \| "5476275" \| "5669624" \| "5695208" \| "6017051" \| "6036220").PN. OR ("6443467").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:25 |
| S35 | 15 | ("1707186").URPN. | USPAT | OR | ON | 2012/06/28 23:28 |
| S36 | 14 | ("20030111825" \| "5333893" \| "6209892" \| "6513827" \| "6863286" \| "7032922" \| "7367581" \| "7377537" \| "D429664" \| "D430076").PN. OR ("7475900").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:31 |
| S37 | 44 | S31 and (wheel near2 remov$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/06/28 23:35 |

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| S38 | 22 | ("3738600" \| "3876046" \| "4570956" \| "4750783" \| "5188389" \| "5234224" \| "5499831" \| "5536027" \| "5562300" \| "5876046" \| "6189914" \| "6193263" \| "6209892" \| "6290290" \| "6302412" \| "6398233" \| "6550802" \| "D397316" \| "D481975" \| "D486427" \| "D497844").PN. OR ("D508443").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:36 |
| S39 | 20 | ("4725071" \| "5221106" \| "5338096" \| "5522121" \| "5918892" \| "6209892" \| "6267406" \| "6527294" \| "D296540").PN. OR ("6752405").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:46 |
| S40 | 15 | ("0522608" \| "1707186" \| "3223431" \| "3524655" \| "3997180" \| "4620686" \| "4632409" \| "4836573" \| "6267406" \| "6752405" \| "7364183").PN. OR ("8157273").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:48 |
| S41 | 30 | ("0556168" \| "1707186" \| "1934396" \| "20020033588" \| "20050167951" \| "20070252352" \| "20080143082" \| "20090026733" \| "3383738" \| "4083579" \| "4805938" \| "5221106" \| "5333893" \| "5522121" \| "5769448" \| "5918892" \| "6431579" \| "6527294" \| "6601866" \| "6752405" \| "7481439" \| "7516966" \| "7597332" \| "D484075" \| "D595621" \| "D598333").PN. OR ("7896384").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/28 23:49 |
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| S45 | 1 | ("6702316").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/06/29 00:04 |
| S46 | 29 | ("20010040357" \| "20020060444" \| "20020093177" \| "4852894" \| "4921261" \| "4989888" \| "5490685" \| "5641200" \| "5676386" \| "5794951" \| "5947555" \| "6189914" \| "6209892" \| "6241274" \| "6286844" \| "6302412" \| "6331032" \| "6398233" \| "6409205").PN. OR ("6702316").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/06/29 00:04 |
| S47 | 2446 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 04:43 |
| S48 | 37502608 | @ad<="20081204" | US- | OR | ON | 2012/07/01 |


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| | | | PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | | | 04:43 |
| S49 | 1076 | S47 and S48 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 04:43 |
| S50 | 2837 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 04:43 |
| S51 | 1861 | S50 and S48 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 04:43 |
| S52 | 2902 | S49 or S51 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 04:43 |
| S53 | 476 | S52 and cylindrical | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 04:43 |
| S54 | 21 | S52 and cylindrical near2 connect$3 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2012/07/01 05:05 |
| S55 | 29 | ("1506565" \| "1885627" \| "1954179" \| "20040026895" \| "20040164515" \| "2220528" \| "2334387" \| "2482585" \| "5395130" \| "5454578" \| "5501480" \| "5536027" \| "5904363" \| "6022042" \| "6331013" \| "6443467" \| "6443469" \| "6685206" \| "6685207" \| "D327240" \| "D405031" \| "D486425").PN. OR ("7261308").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:10 |
| S56 | 28 | ("0122730" \| "0937625" \| "1212221" \| "20070114738" \| "2836224" \| "3000645" \| "4288124" \| "4779883" \| "4805938" \| "4863217" \| "5312122" \| "5622375" \| "5653460" \| "5704627" \| "5848797" \| "6378892" \| "6530591" \| "6746079" \| "6851693" \| "7226059" \| "7481439" \| "7597332" \| "7677585").PN. OR | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:17 |

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|---|---|---|---|---|---|---|
| | | ("8128103").URPN. | | | | |
| S57 | 36 | ("1486118" \| "2769482" \| "2993702" \| "3253860" \| "3497234" \| "3612603" \| "4155588" \| "4181356" \| "4288124" \| "4381870" \| "4596405" \| "4632409" \| "4711489" \| "4813742" \| "4946180" \| "5161811" \| "5201535" \| "5213360" \| "5374073" \| "5401076" \| "5547205" \| "5848797" \| "5988657" \| "6135479" \| "6276709" \| "D340140").PN. OR ("6561526").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:18 |
| S58 | 18 | ("2926880" \| "3290050" \| "3309101" \| "4183580" \| "4711489" \| "4779883" \| "5074616" \| "5168601" \| "5265931" \| "5401076" \| "5529325").PN. OR ("5704627").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:21 |
| S59 | 23 | ("4542915" \| "4854607" \| "4986564" \| "5033761").PN. OR ("5653460").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:22 |
| S60 | 31 | ("2453631" \| "2558372" \| "4953887" \| "5090724" \| "5380262" \| "5653460" \| "5676386").PN. OR ("6155592").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:25 |
| S61 | 5 | ("2453631").URPN. | USPAT | OR | ON | 2012/07/01 05:27 |
| S62 | 33 | ("0279778" \| "1033324" \| "2453631" \| "3643292" \| "3849834" \| "3879146" \| "4132429" \| "4335900" \| "4606550" \| "4856809" \| "4902027" \| "4953880" \| "5176395" \| "5188389" \| "5263730" \| "5299825" \| "5318318" \| "5344171" \| "5356171" \| "5364119" \| "5536027").PN. OR ("5647601").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:28 |
| S63 | 5 | ("2453631").URPN. | USPAT | OR | ON | 2012/07/01 05:29 |
| S64 | 16 | ("1560802" \| "5076579" \| "5123670" \| "5188389" \| "5224720" \| "5301963" \| "5476275" \| "5669624" \| "5695208" \| "6017051" \| "6036220").PN. OR ("6443467").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2012/07/01 05:33 |
| S65 | 1 | ("7677585").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 15:09 |
| S66 | 1 | ("6676140").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:02 |
| S67 | 1 | ("6443467").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:05 |
| S68 | 2 | ("1707186").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:05 |
| S69 | 1 | ("7475900").PN. | US-PGPUB; | OR | OFF | 2012/07/01 16:05 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR | | | |
| S70 | 1 | ("6752405").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:14 |
| S71 | 1 | ("8157273").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:14 |
| S72 | 1 | ("7896384").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:15 |
| S73 | 1 | ("6561526").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:16 |
| S74 | 1 | ("5653460").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2012/07/01 16:17 |
| S75 | 2925 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/02/13 17:32 |
| S76 | 37571828 | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/02/13 17:32 |
| S77 | 1873 | S75 and S76 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/02/13 17:32 |
| S78 | 2516 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/02/13 17:35 |
| S79 | 35 | S78 and S77 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/02/13 17:36 |
| S80 | 1080 | S78 and S76 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/02/13 17:36 |
| S81 | 1 | ("20050082897").PN. OR ("8246020").URPN. | US-PGPUB; | OR | ON | 2013/02/13 17:44 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR | | | |
| S82 | 9 | ("20070085303" \| "20080303232" \| "20090033066" \| "3784252" \| "5257799" \| "5794951" \| "6086086" \| "7367581" \| "7377537").PN. OR ("8205906").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/13 17:52 |
| S83 | 31 | ("20010002745" \| "20030067138" \| "20050099025" \| "20060237932" \| "20070063474" \| "20080067776" \| "20090026817" \| "2450051" \| "4754987" \| "5076599" \| "5267744" \| "5454577" \| "5474316" \| "5577746" \| "5921571" \| "5947497" \| "5979921" \| "6196572" \| "6663126" \| "6764087" \| "6767028" \| "6929274" \| "6976697" \| "7052026" \| "7168761" \| "7172206" \| "7354058" \| "7431324" \| "7445222" \| "7547029").PN. OR ("8262103").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/13 17:58 |
| S84 | 22 | ("20080211206" \| "20090014985" \| "20090078482" \| "3605929" \| "4362311" \| "4861058" \| "5020624" \| "5421598" \| "5921338" \| "6135222" \| "6220382" \| "6378642" \| "6439331" \| "6659488" \| "6793248" \| "7044249" \| "7080847" \| "7364182" \| "7571926" \| "7591479" \| "7832755").PN. OR ("8336904").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/13 18:03 |
| S85 | 1 | ("8251382").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/02/14 15:15 |
| S86 | 34 | ("20080150247" \| "20080179848" \| "20080224451" \| "20080303232" \| "20090102162" \| "20090121455" \| "20090256323" \| "20100001492" \| "20100109272" \| "20100127480" \| "4645371" \| "5028061" \| "5257799" \| "5364137" \| "5676386" \| "5772279" \| "5865447" \| "5947555" \| "6286844" \| "6446990" \| "6513827" \| "6991248" \| "7032922" \| "7296820" \| "7314247" \| "7367581" \| "7377537" \| "7584985" \| "7658399" \| "7681894" \| "7686323" \| "7694996" \| "7712765" \| "7753398").PN. OR ("8251382").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/14 15:19 |
| S87 | 32 | ("4836573" \| "4892327" \| "5028061" \| "5069474" \| "5257799" \| "5460430" \| "5887935" \| "5921574" \| "6099022" \| "6523853" \| "6594840" \| "6739649" \| "7281732").PN. OR ("7377537").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/14 17:50 |
| S88 | 57 | ("20020093177" \| "20020109320" \| "20030075903" \| "20030080536" \| "20030111825" \| "20040032103" \| "20040094922" \| "20040124610" \| "20040124611" \| "20040245747" \| "20050093259" \| "20050127640" \| "20050242535" \| "20050242549" \| "20060119079" \| "20070001429" \| "20070108710" \| "20070194545" \| "20080157491" \| "20090127827" \| "5333893" \| "5676386" \| "5772279" \| "5794951" \| "5833261" \| "5947555" \| "6086087" \| "6209892" \| "6286844" \| "6331032" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2013/02/14 17:52 |

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|---|---|---|---|---|---|---|
| | | "6398233" \| "6409205" \| "6513827" \| "6530591" \| "6626452" \| "6641164" \| "6702316" \| "6793280" \| "6802514" \| "6863286" \| "6893031" \| "6923467" \| "6983986" \| "6986518" \| "7017921" \| "7032922" \| "7070197" \| "7370913" \| "7377537" \| "7419181" \| "7445229" \| "7475900" \| "7513512" \| "7600775" \| "7614641" \| "7938435" \| "D430076").PN. OR ("8328208").URPN. | | | | |
| S89 | 3003 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/16 15:09 |
| S90 | 37602504 | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/07/16 15:09 |
| S91 | 1876 | S89 and S90 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/07/16 15:09 |
| S92 | 2544 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/16 15:11 |
| S93 | 1082 | S92 and S90 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2013/07/16 15:11 |
| S94 | 51 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20100140902-$ or US-20080303232-$ or US-20070085303-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$).did. or (US-3000645-$ or US-2453631-$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/23 15:10 |
| S95 | 26 | ("20060131841" \| "20070069505" \| | US- | OR | ON | 2013/07/23 |

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|---|---|---|---|---|---|---|
| | | "20070210560" \| "20080012268" \| "20080224450" \| "20080224451" \| "20090160162" \| "20100171289" \| "20100201103" \| "5947555" \| "6045145" \| "6270111" \| "6331032" \| "6715783" \| "7032922" \| "7367581" \| "7475900" \| "7677585" \| "7753398" \| "7775532" \| "7798500" \| "7938435" \| "8061732" \| "8128119" \| "8157273" \| "8205906").PN. | PGPUB; USPAT; USOCR | | | 15:16 |
| S96 | 1 | ("8240700").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/23 15:17 |
| S97 | 231 | ("1598778" \| "1709527" \| "20050012306" \| "20050242549" \| "20060001226" \| "20060131840" \| "20060131841" \| "20060152059" \| "20060157945" \| "20060219374" \| "20060261576" \| "20090127827" \| "20090127828" \| "20090243260" \| "20100038886" \| "2616719" \| "2783053" \| "3112042" \| "3168330" \| "3227484" \| "3390893" \| "3459435" \| "3504926" \| "3556546" \| "3561787" \| "3653681" \| "3799567" \| "3989295" \| "4007947" \| "4023825" \| "4046401" \| "4111454" \| "4126331" \| "4191397" \| "4232897" \| "4248443" \| "4317581" \| "4322093" \| "4335900" \| "4362315" \| "4365819" \| "4378946" \| "4412688" \| "4415180" \| "4513974" \| "4542915" \| "4564212" \| "4591176" \| "4602395" \| "4606550" \| "4610460" \| "4632420" \| "4632421" \| "4660850" \| "4706986" \| "4733882" \| "4741056" \| "4741551" \| "4763911" \| "4763919" \| "4768795" \| "4770437" \| "4805928" \| "4807928" \| "4817982" \| "4819958" \| "4832361" \| "4856809" \| "4886289" \| "4892327" \| "4906017" \| "4907818" \| "4924725" \| "4930697" \| "4953887" \| "4968092" \| "5028061" \| "5056805" \| "5074575" \| "5087066" \| "5110150" \| "5143398" \| "5181735" \| "5184835" \| "5201535" \| "5205577" \| "5205579" \| "5238292" \| "5244228" \| "5246272" \| "5257799" \| "5362089" \| "5388852" \| "5398951" \| "5417449" \| "5417450" \| "5427402" \| "5431478" \| "5437493" \| "5441163" \| "5454584" \| "5460395" \| "5460398" \| "5472224" \| "5478102" \| "5489138" \| "5511259" \| "5511441" \| "5524503" \| "5527090" \| "5605409" \| "5622377" \| "5645293" \| "5649737" \| "5664795" \| "5669623" \| "5669624" \| "5669625" \| "5676386" \| "5718444").PN. OR ("5722682" \| "5727798" \| "5741021" \| "5752738" \| "5765855" \| "5765856" \| "5769447" \| "5772235" \| "5775718" \| "5795091" \| "5810432" \| "5845666" \| "5845924" \| "5876057" \| "5887935" \| "5921571" \| "5934757" \| "5938229" \| "5947555" \| "5979928" \| "5984332" \| "5988669" \| "5988670" \| "6068284" \| "6070890" \| "6099022" \| "6102431" \| "6116624" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/23 15:17 |


MOCKINGBIRD ET AL. EX1018

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|---|---|---|---|---|---|---|
| | | "6129373" \| "6139046" \| "6152476" \| "6155740" \| "6189914" \| "6193263" \| "6209829" \| "6273451" \| "6286844" \| "6296004" \| "6299194" \| "6302613" \| "6339862" \| "6368006" \| "6398233" \| "6409205" \| "6412809" \| "6443261" \| "6443479" \| "6446990" \| "6467739" \| "6478327" \| "6557871" \| "6557885" \| "6572134" \| "6581957" \| "6666473" \| "6851700" \| "7017921" \| "7017937" \| "7032922" \| "7044497" \| "7185909" \| "7188858" \| "7281732" \| "7338122" \| "7445229" \| "7445230" \| "7621431" \| "7686322" \| "7871100" \| "D308656" \| "D310645" \| "D317280" \| "D320370" \| "D337257" \| "D352017" \| "D357439" \| "D357440" \| "D412142" \| "D415075" \| "D419113" \| "D421940" \| "D427822" \| "D431212" \| "D431213" \| "D452192" \| "D470803" \| "D473663" \| "D480195" \| "D494511" \| "D521422" \| "D545074" \| "D558648" \| "D566629" \| "D593272" \| "D604151" \| "D617255" \| "D630934" \| "D636300").PN. OR ("8240700").URPN. | | | | |
| S98 | 1 | ("8186705").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/23 16:51 |
| S99 | 236 | ("1598778" \| "1709527" \| "20050012306" \| "20050242549" \| "20060001226" \| "20060131840" \| "20060131841" \| "20060152059" \| "20060157945" \| "20060219374" \| "20060261576" \| "20090127827" \| "20090127828" \| "20090243260" \| "20100171289" \| "2616719" \| "2783053" \| "3112042" \| "3168330" \| "3227484" \| "3390893" \| "3459435" \| "3504926" \| "3556546" \| "3561787" \| "3653681" \| "3784252" \| "3799567" \| "3989295" \| "4007947" \| "4023825" \| "4046401" \| "4111454" \| "4126331" \| "4191397" \| "4232897" \| "4248443" \| "4317581" \| "4322093" \| "4335900" \| "4362315" \| "4365819" \| "4378946" \| "4412688" \| "4415180" \| "4513974" \| "4542915" \| "4564212" \| "4591176" \| "4602395" \| "4606550" \| "4610460" \| "4632420" \| "4632421" \| "4660850" \| "4706986" \| "4733882" \| "4741056" \| "4741551" \| "4763911" \| "4763919" \| "4768795" \| "4770437" \| "4805928" \| "4807928" \| "4817982" \| "4819958" \| "4832361" \| "4856809" \| "4886289" \| "4892327" \| "4906017" \| "4907818" \| "4924725" \| "4930697" \| "4953887" \| "4968092" \| "5028061" \| "5056805" \| "5074575" \| "5087066" \| "5110150" \| "5143398" \| "5181735" \| "5184835" \| "5201535" \| "5205577" \| "5205579" \| "5238292" \| "5244228" \| "5246272" \| "5257799" \| "5362089" \| "5388852" \| "5398951" \| "5417449" \| "5417450" \| "5427402" \| "5431478" \| "5437493" \| "5441163" \| "5454584" \| "5460395" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/23 16:56 |



MOCKINGBIRD ET AL. EX1018

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|---|---|---|---|---|---|---|
| | | "5460398" \| "5472224" \| "5478102" \| "5489138" \| "5511259" \| "5511441" \| "5524503" \| "5527090" \| "5605409" \| "5622377" \| "5645293" \| "5649737" \| "5664795" \| "5669623" \| "5669624" \| "5669625" \| "5676386").PN. OR ("5718444" \| "5722682" \| "5727798" \| "5741021" \| "5752738" \| "5765855" \| "5765856" \| "5769447" \| "5772235" \| "5775718" \| "5795091" \| "5810432" \| "5845666" \| "5845924" \| "5876057" \| "5887935" \| "5921571" \| "5934757" \| "5938229" \| "5947555" \| "5979928" \| "5984332" \| "5988669" \| "5988670" \| "6068284" \| "6070890" \| "6099022" \| "6102431" \| "6116624" \| "6129373" \| "6139046" \| "6152476" \| "6155740" \| "6189914" \| "6193263" \| "6209829" \| "6273451" \| "6286844" \| "6296004" \| "6299194" \| "6302613" \| "6339862" \| "6368006" \| "6398233" \| "6409205" \| "6412809" \| "6443261" \| "6443479" \| "6446990" \| "6467739" \| "6478327" \| "6557871" \| "6557885" \| "6572134" \| "6581957" \| "6666473" \| "6851700" \| "7017921" \| "7017937" \| "7032922" \| "7044497" \| "7185909" \| "7188858" \| "7281732" \| "7338122" \| "7445229" \| "7445230" \| "7475900" \| "7621431" \| "7658399" \| "7686322" \| "7871100" \| "7938435" \| "8033555" \| "D308656" \| "D310645" \| "D317280" \| "D320370" \| "D337257" \| "D352017" \| "D357439" \| "D357440" \| "D412142" \| "D415075" \| "D419113" \| "D421940" \| "D427822" \| "D431212" \| "D431213" \| "D452192" \| "D470803" \| "D473663" \| "D480195" \| "D494511" \| "D521422" \| "D545074" \| "D558648" \| "D566629" \| "D593272" \| "D604151" \| "D617255" \| "D630934" \| "D636300").PN. OR ("8186705").URPN. | | | | |
| S100 | 17 | ("20060001226" \| "6099022" \| "5121940" \| "6502901" \| "6530591" \| "6641164" \| "20060157945" \| "6193263" \| "6626452" \| "20060152059" \| "4365819" \| "6209829" \| "6398233" \| "6877761" \| "7070197" \| "20060131841" \| "7320471").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/23 17:08 |
| S101 | 2 | ("4953667" \| "4257729").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 13:00 |
| S102 | 1 | ("6168174").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:04 |
| S103 | 1 | ("6209892").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:04 |
| S104 | 1 | ("6296260").PN. | US-PGPUB; USPAT; | OR | OFF | 2013/07/24 13:18 |

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|---|---|---|---|---|---|---|
| | | | USOCR | | | |
| S105 | 1 | ("6203053").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:19 |
| S106 | 1 | ("4681330").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:20 |
| S107 | 1 | ("5685552").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:21 |
| S108 | 1 | ("5984326").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:21 |
| S109 | 1 | ("6168174").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:22 |
| S110 | 1 | ("6209892").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/24 13:22 |
| S111 | 6 | ("5653460" \| "6045145" \| "6378892").PN. OR ("7320471").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 13:25 |
| S112 | 23 | ("4657269" \| "4836573" \| "5184835" \| "5338096" \| "5664795" \| "5911432").PN. OR ("6045145").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 13:26 |
| S113 | 53 | ("20030192925" \| "20050072821" \| "2907372" \| "3079162" \| "3248125" \| "3627342" \| "3961803" \| "3967833" \| "4032173" \| "4113306" \| "4181356" \| "4220351" \| "4231587" \| "4239259" \| "4256325" \| "4412688" \| "4620711" \| "4681340" \| "4762256" \| "4844504" \| "4892327" \| "5230523" \| "5333769" \| "5398951" \| "5411729" \| "5431478" \| "5468009" \| "5478096" \| "5662339" \| "5806924" \| "5829826" \| "5964470" \| "5987665" \| "6045145" \| "6231056" \| "6250654" \| "6375213" \| "6811178" \| "6910696" \| "D254610" \| "D345720" \| "D358058" \| "D365925" \| "D402235" \| "D508443").PN. OR ("7497461").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 16:08 |
| S114 | 22 | ("3738600" \| "3876046" \| "4570956" \| "4750783" \| "5188389" \| "5234224" \| "5499831" \| "5536027" \| "5562300" \| "5876046" \| "6189914" \| "6193263" \| "6209892" \| "6290290" \| "6302412" \| "6398233" \| "6550802" \| "D397316" \| "D481975" \| "D486427" \| "D497844").PN. OR ("D508443").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 16:13 |
| S115 | 26 | ("4790548" \| "5060967" \| "5366274" \| "5727848" \| "5975225" \| "6203054" \| "6513827" \| "7234722").PN. OR | US-PGPUB; USPAT; | OR | ON | 2013/07/24 18:30 |

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|---|---|---|---|---|---|---|
| | | ("7367581").URPN. | USOCR | | | |
| S116 | 23 | ("4657269" \| "4836573" \| "5184835" \| "5338096" \| "5664795" \| "5911432").PN. OR ("6045145").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/24 18:39 |
| S117 | 55 | ("4736959" \| "4743063" \| "4872692" \| "4878680" \| "5201535" \| "5676386").PN. OR ("5947555").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 10:09 |
| S118 | 25 | ("20010040357" \| "20020093177" \| "20030075903" \| "4921261" \| "4989888" \| "5676386" \| "5794951" \| "5947555" \| "6189914" \| "6209892" \| "6241274" \| "6286844" \| "6302412" \| "6331032" \| "6398233" \| "6409205" \| "6641164" \| "6702316").PN. OR ("6923467").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 11:03 |
| S119 | 25 | ("4570956" \| "4836573" \| "4921261" \| "4946180" \| "5121940" \| "5188380" \| "5676386" \| "5772279" \| "5947555" \| "6070890" \| "6155592" \| "6286844" \| "6398233" \| "6409205" \| "6478327" \| "D345720").PN. OR ("6641164").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 11:28 |
| S120 | 2 | ("3000645").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/25 15:26 |
| S121 | 9 | ("3000645").URPN. | USPAT | OR | ON | 2013/07/25 15:27 |
| S122 | 29 | ("0122730" \| "0937625" \| "1212221" \| "20070114738" \| "2836224" \| "3000645" \| "4288124" \| "4779883" \| "4805938" \| "4863217" \| "5312122" \| "5622375" \| "5653460" \| "5704627" \| "5848797" \| "6378892" \| "6530591" \| "6746079" \| "6851693" \| "7226059" \| "7481439" \| "7597332" \| "7677585").PN. OR ("8128103").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:29 |
| S123 | 1 | ("8029007").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/25 15:30 |
| S124 | 28 | ("20010033069" \| "20020135142" \| "20030025304" \| "20030127835" \| "20040164510" \| "20070090619" \| "5463853" \| "5622375" \| "5625923" \| "5725238" \| "5882022" \| "5909887" \| "5967190" \| "6098492" \| "6422634" \| "6447001" \| "6453921" \| "6530591" \| "6540238" \| "6557878" \| "6698772" \| "6827356" \| "6893028" \| "7159829" \| "7290776").PN. OR ("8029007").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:31 |
| S125 | 1 | ("6851693").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/25 15:34 |
| S126 | 14 | ("3887208" \| "5064209" \| "5067738" \| "5269548" \| "5421597" \| "5470088" \| "5513868" \| "5785335").PN. OR ("6851693").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:35 |
| S127 | 6 | ("2001/0033069").URPN. | USPAT | OR | ON | 2013/07/25 |

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|---|---|---|---|---|---|---|
| | | | | | | 15:36 |
| S128 | 28 | ("1876963" \| "20010033069" \| "20020089136" \| "20040075230" \| "20040173989" \| "20060261575" \| "20100201089" \| "2859975" \| "3069182" \| "4190261" \| "4239248" \| "4323258" \| "4336952" \| "4359231" \| "5624128" \| "5931244" \| "6203053" \| "6485039" \| "6517092" \| "6572130" \| "6626446" \| "7073822" \| "7377527" \| "7549655" \| "7699325").PN. OR ("8146926").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:37 |
| S129 | 1 | ("7249779").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2013/07/25 15:38 |
| S130 | 57 | ("1218943" \| "1347384" \| "1408729" \| "1560288" \| "20010035626" \| "20030151225" \| "2305719" \| "2435733" \| "2468933" \| "2798727" \| "3314494" \| "3738700" \| "3954283" \| "4015297" \| "4825484" \| "4958842" \| "5125674" \| "5190306" \| "5558357" \| "5562300" \| "5590896" \| "5692760" \| "5709400" \| "5820146" \| "5884922" \| "5975551" \| "6164666" \| "6231056" \| "6237995" \| "6340168" \| "6409190" \| "6460866" \| "6595536" \| "6601862" \| "6623023" \| "6676140" \| "6688614" \| "7029015").PN. OR ("7249779").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 15:38 |
| S131 | 60 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$).did. or (US-3000645-$ or US-2453631-$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2013/07/25 16:59 |
| S132 | 7295614 | @ad<="20081204" | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/29 18:38 |
| S133 | 2588 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; | OR | OFF | 2014/01/29 18:38 |


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|---|---|---|---|---|---|---|
| | | | USOCR | | | |
| S134 | 3082 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/29 18:38 |
| S135 | 1082 | S132 and S133 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:39 |
| S136 | 1877 | S132 and S134 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:39 |
| S137 | 5616 | S133 or S134 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:41 |
| S138 | 2924 | S132 and S137 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:41 |
| S139 | 1012 | S138 and stroller | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:41 |
| S140 | 901 | S139 and seat$3 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:41 |
| S141 | 757 | S140 and (insert$4 or attach$4 or detach$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:42 |
| S142 | 107 | S141 and ((double or tandem) same stroller) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/01/29 18:42 |


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|---|---|---|---|---|---|---|
| S143 | 1 | ("5816367").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/30 09:23 |
| S144 | 3 | ("2006/0290107").URPN. | USPAT | OR | ON | 2014/01/30 14:24 |
| S145 | 78 | ("20030020259" \| "20030227157" \| "20060290107" \| "20070001429" \| "20070085303" \| "20070222167" \| "20070296182" \| "20080073877" \| "20080150247" \| "20090039620" \| "20100038886" \| "20100038887" \| "20100072732" \| "20100078916" \| "20100109292" \| "20100140902" \| "20100282800" \| "20120153583" \| "2769482" \| "2798733" \| "2857953" \| "2993702" \| "3235279" \| "3309101" \| "4542915" \| "4725071" \| "4858947" \| "5018754" \| "5167425" \| "5184835" \| "5263730" \| "5333893" \| "5338096" \| "5417449" \| "5653460" \| "5664795" \| "5722682" \| "5911432" \| "6045145" \| "6086087" \| "6209892" \| "6267406" \| "6378892" \| "6497424" \| "6585284" \| "6676140" \| "6702316" \| "6843498" \| "6877761" \| "6935652" \| "6979017" \| "7320471" \| "7451999" \| "7938433" \| "8070179" \| "8157273" \| "8186705" \| "8205894" \| "D311363" \| "D321850" \| "D328047" \| "D359937" \| "D375706" \| "D429664" \| "D430076" \| "D431212" \| "D455679" \| "D587635" \| "D614540" \| "D616337" \| "D616338" \| "D636300").PN. OR ("8371606").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 14:26 |
| S146 | 8 | ("2010/0078916").URPN. | USPAT | OR | ON | 2014/01/30 14:27 |
| S147 | 8 | ("20070096438" \| "20100025968" \| "20100078916" \| "6422586" \| "7401803" \| "7441794" \| "7632035" \| "7766366").PN. OR ("8596669").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 14:27 |
| S148 | 1 | ("8157273").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/30 16:20 |
| S149 | 18 | ("0522608" \| "1707186" \| "3223431" \| "3524655" \| "3997180" \| "4620686" \| "4632409" \| "4836573" \| "6267406" \| "6752405" \| "7364183").PN. OR ("8157273").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 16:21 |
| S150 | 1 | ("5338096").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/30 16:23 |
| S151 | 19 | ("3223431" \| "3915493" \| "3917312" \| "4886209" \| "5184835").PN. OR ("5338096").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 16:24 |
| S152 | 23 | ("4657269" \| "4836573" \| "5184835" \| "5338096" \| "5664795" \| "5911432").PN. OR ("6045145").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 17:17 |

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|---|---|---|---|---|---|---|
| S153 | 53 | ("20030192925" \| "20050072821" \| "2907372" \| "3079162" \| "3248125" \| "3627342" \| "3961803" \| "3967833" \| "4032173" \| "4113306" \| "4181356" \| "4220351" \| "4231587" \| "4239259" \| "4256325" \| "4412688" \| "4620711" \| "4681340" \| "4762256" \| "4844504" \| "4892327" \| "5230523" \| "5333769" \| "5398951" \| "5411729" \| "5431478" \| "5468009" \| "5478096" \| "5662339" \| "5806924" \| "5829826" \| "5964470" \| "5987665" \| "6045145" \| "6231056" \| "6250654" \| "6375213" \| "6811178" \| "6910696" \| "D254610" \| "D345720" \| "D358058" \| "D365925" \| "D402235" \| "D508443").PN. OR ("7497461").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 17:56 |
| S154 | 6 | ("5653460" \| "6045145" \| "6378892").PN. OR ("7320471").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/30 18:00 |
| S155 | 23 | ("20010013689" \| "20040032103" \| "20040094923" \| "20070057486" \| "20080012268" \| "20080231022" \| "20090127827" \| "20090243260" \| "20090295128" \| "4398748" \| "4836573" \| "6446990" \| "6478327" \| "6572134" \| "7497461" \| "7513512" \| "7658399" \| "7686322" \| "7712765" \| "7775532" \| "7832755" \| "7878527" \| "7938435").PN. OR ("8231136").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/31 10:54 |
| S156 | 2 | ("2008/0231022").URPN. | USPAT | OR | ON | 2014/01/31 12:58 |
| S157 | 14 | ("20040094923" \| "20070057486" \| "20080012268" \| "20080231022" \| "20090127827" \| "20090243261" \| "20120098219" \| "4398748" \| "4836573" \| "6446990" \| "6478321" \| "6478327" \| "6572134" \| "7712765").PN. OR ("8458880").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/01/31 12:59 |
| S158 | 1 | ("7938435").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/01/31 13:26 |
| S159 | 34 | ("4157839" \| "5558357" \| "5676386" \| "5772279" \| "5794951" \| "5863061" \| "5865447" \| "5876046" \| "5947555" \| "6241274" \| "6286844" \| "6331032" \| "6409205" \| "6428034" \| "6478327" \| "6533309" \| "6666473" \| "6893040" \| "7032922" \| "7267359" \| "7377537" \| "7431395" \| "7475900" \| "7681894" \| "7766366").PN. OR ("7938435").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/02/03 12:41 |
| S160 | 17 | ("20050098983" \| "2842374" \| "6357784" \| "7118121" \| "7267359" \| "7367581" \| "7441794" \| "7527283").PN. OR ("7766366").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/02/03 12:56 |
| S161 | 105 | ("1727335" \| "2435733" \| "2508905" \| "2509103" \| "2574743" \| "2722966" \| "2805076" \| "2864429" \| "3083997" \| "3116069" \| "3549164" \| "3829113" \| "4108468" \| "4412689" \| "4537414" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2014/02/03 13:14 |


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|---|---|---|---|---|---|---|
| | | "4570956" \| "4697845" \| "4743063" \| "4750783" \| "4762331" \| "4768795" \| "4786064" \| "4822064" \| "4832354" \| "4834403" \| "4861105" \| "4874182" \| "4915401" \| "4921261" \| "5121940" \| "5133567" \| "5197753" \| "5201535" \| "5203577" \| "5234224" \| "5265931" \| "5364137" \| "5375869" \| "5385386" \| "5499831" \| "5527096" \| "5564778" \| "5567008" \| "5601297" \| "5676386" \| "5707106" \| "5727798" \| "5772279" \| "5865447" \| "5876046" \| "5974555").PN. OR ("6286844").URPN. | | | | |
| S162 | 52 | ("3779655" \| "4191397" \| "4216974" \| "4412688" \| "4602889" \| "4634177" \| "4645371" \| "4834403" \| "5028061" \| "5257799" \| "5527096" \| "5772279" \| "5865447" \| "6286844").PN. OR ("6513827").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/02/03 13:21 |
| S168 | 1 | ("20140217706").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 10:03 |
| S169 | 3175 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 10:24 |
| S170 | 7324421 | @ad<="20081204" | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 10:24 |
| S171 | 1878 | S169 and S170 | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 10:25 |
| S172 | 64 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$).did. or (US-3000645-$ or US- | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 10:25 |

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|---|---|---|---|---|---|---|
| | | 2453631-$).did. | | | | |
| S173 | 3686032 | @pd>="20140129" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 10:56 |
| S174 | 1 | S171 and S173 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 10:56 |
| S175 | 13 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 10:57 |
| S176 | 1 | ("7,497,461").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:01 |
| S177 | 94 | S169 and S173 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 11:08 |
| S178 | 12 | ("20070296182" \| "20100117315" \| "5820144" \| "6086086" \| "6513827" \| "6715783" \| "7032922" \| "7066542" \| "7364183" \| "7377537" \| "7455362" \| "8061732").PN. OR ("8764048").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 11:25 |
| S179 | 15 | ("3797848" \| "4832361" \| "5074575" \| "6116624" \| "6446990" \| "6508605" \| "6530591" \| "6824161" \| "6830254" \| "6851700" \| "6951342" \| "7021650" \| "7273225" \| "7401803" \| "7513512").PN. OR ("8696016").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 11:41 |
| S180 | 1 | ("7,938,435").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:47 |
| S181 | 1 | ("20080231022").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:47 |
| S182 | 2 | ("2008/0231022").URPN. | USPAT | OR | ON | 2014/09/24 11:48 |
| S183 | 1 | ("7,766,366").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:51 |
| S184 | 1 | ("6,286,844").PN. | US-PGPUB; | OR | OFF | 2014/09/24 11:52 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR | | | |
| S185 | 1 | ("6,513,827").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:53 |
| S186 | 0 | (2006/0131841).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:53 |
| S187 | 1 | ("20060131841").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:54 |
| S188 | 1 | ("20060001226").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:54 |
| S189 | 1 | ("7,320,471").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:55 |
| S190 | 1 | ("6,045,145").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:55 |
| S191 | 1 | ("20080224451").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:55 |
| S192 | 1 | ("7,481,439").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:57 |
| S193 | 1 | ("7,367,581").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:57 |
| S194 | 1 | ("8,029,007").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:58 |
| S195 | 1 | ("6,923,467").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:58 |
| S196 | 1 | ("20070090619").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:58 |
| S197 | 1 | ("6,851,693").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 11:59 |
| S198 | 1 | ("20010033069").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 12:00 |
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| S199 | 1 | ("7,249,779").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 12:00 |
| S200 | 57 | ("1218943" \| "1347384" \| "1408729" \| "1560288" \| "20010035626" \| "20030151225" \| "2305719" \| "2435733" \| "2468933" \| "2798727" \| "3314494" \| "3738700" \| "3954283" \| "4015297" \| "4825484" \| "4958842" \| "5125674" \| "5190306" \| "5558357" \| "5562300" \| "5590896" \| "5692760" \| "5709400" \| "5820146" \| "5884922" \| "5975551" \| "6164666" \| "6231056" \| "6237995" \| "6340168" \| "6409190" \| "6460866" \| "6595536" \| "6601862" \| "6623023" \| "6676140" \| "6688614" \| "7029015").PN. OR ("7249779").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 12:02 |
| S201 | 2665 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 12:02 |
| S202 | 79 | S201 and S173 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2014/09/24 12:03 |
| S203 | 2 | S202 and S170 | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 12:03 |
| S204 | 1 | ("5338096").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 13:24 |
| S205 | 1 | ("20030025304").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 13:25 |
| S206 | 1 | ("20070001429").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 13:25 |
| S207 | 1 | ("20070085303").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 13:26 |
| S208 | 1 | ("20070114738").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 13:26 |
| S209 | 1 | ("7681894").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 14:33 |
| S210 | 14 | ("20040164593" \| "3145442" \| "5865447" \| "5947555" \| "6446314" \| "7032922").PN. OR ("7681894").URPN. | US-PGPUB; USPAT; | OR | ON | 2014/09/24 14:33 |

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| | | | USOCR | | | |
| S211 | 1 | ("7377537").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2014/09/24 14:34 |
| S212 | 41 | ("7249779" \| "3000645" \| "7677585" \| "7377537" \| "20060001226" \| "8029007" \| "20080231022" \| "7766366" \| "6443467" \| "6561526" \| "20080224451" \| "6513827" \| "7475900" \| "7497461" \| "20070114738" \| "1707186" \| "6752405" \| "6851693" \| "7938435" \| "6676140" \| "6045145" \| "6923467" \| "20030025304" \| "20070001429" \| "5338096" \| "6045145" \| "20070090619" \| "6209892" \| "6378892" \| "7896384" \| "8157273" \| "8251382" \| "8262103" \| "8336904" \| "20010033069" \| "20060131841" \| "7320471" \| "7367581" \| "7481439" \| "6286844").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2014/09/24 14:56 |
| S219 | 19 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2015/04/20 13:53 |
| S220 | 22 | ("7249779" \| "20060001226" \| "20080231022" \| "7766366" \| "8029007" \| "20080224451" \| "6513827" \| "4797461" \| "7497461" \| "6851693" \| "7938435" \| "6045145" \| "6923467" \| "8905427" \| "20070090619" \| "20010033069" \| "20060131841" \| "6286844" \| "7320471" \| "7367581" \| "7481439" \| "8882134").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 13:58 |
| S221 | 1 | ("7475900").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:02 |
| S222 | 68470442 | @ad<="20081204" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:02 |
| S223 | 1214191 | @pd>="20140924" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:03 |
| S224 | 3292 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:04 |
| S225 | 2741 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:04 |
| S226 | 5977 | S224 or S225 | US-PGPUB; | OR | ON | 2015/04/20 14:04 |

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| | | | USPAT; USOCR; FPRS; EPO; JPO | | | |
| S227 | 2929 | S226 and S222 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:04 |
| S228 | 2 | S227 and S223 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:04 |
| S229 | 88 | ("0119331" \| "1138802" \| "1269379" \| "1707186" \| "1890469" \| "20040251063" \| "20070045975" \| "20090115151" \| "20090160162" \| "20100038887" \| "20100140902" \| "20110175330" \| "3223431" \| "3612603" \| "3726536" \| "4222132" \| "4349938" \| "4391453" \| "4403807" \| "4684148" \| "4725071" \| "4805938" \| "4834415" \| "4834452" \| "4858947" \| "4872692" \| "4969656" \| "5018754" \| "5033761" \| "5064209" \| "5167425" \| "5221106" \| "5230523" \| "5338096" \| "5653460" \| "5664795" \| "5772235" \| "5887935" \| "5918892" \| "6086087" \| "6099022" \| "6267406" \| "6357784" \| "6361111" \| "6375213" \| "6431579" \| "6527294" \| "6536842" \| "6585284" \| "6676140" \| "6679506" \| "6752405" \| "6843498" \| "6935652" \| "6938906" \| "6938954" \| "7025364" \| "7364183" \| "7367581" \| "7516966" \| "7597332" \| "7896384" \| "8128103" \| "8157273" \| "8398143" \| "D296540" \| "D300310" \| "D305316" \| "D321850" \| "D328047" \| "D348489" \| "D360392" \| "D370437" \| "D382516" \| "D404344" \| "D430512" \| "D431212" \| "D452191" \| "D568794" \| "D593458" \| "D595621" \| "D598333").PN. OR ("8905427").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 14:04 |
| S230 | 84 | (B62B7/00).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:08 |
| S231 | 796 | (B62B7/008).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S232 | 666 | (B62B7/14).CPC. | US-PGPUB; USPAT; USOCR; FPRS; | OR | ON | 2015/04/20 14:12 |

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| | | | EPO; JPO | | | |
| S233 | 894 | (B62B7/142).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S234 | 1003 | (B62B9/102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S235 | 450 | (B62B9/12).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S236 | 3236 | S230 S231 S232 S233 S234 S235 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:12 |
| S237 | 2104 | S236 and S222 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:13 |
| S238 | 70 | S237 and (seat$3 same revers$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:14 |
| S239 | 77 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$ or US-20030025304-$ or US-20070069505-$ or US-20080231022-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 14:14 |

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|---|---|---|---|---|---|---|
| | | or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$ or US-8764048-$ or US-8061732-$).did. or (US-8733784-$ or US-8696016-$ or US-8231136-$ or US-8458880-$ or US-7249779-$ or US-7681894-$ or US-8955869-$ or US-8905427-$).did. or (US-3000645-$ or US-2453631-$).did. | | | | |
| S240 | 58 | S238 not S239 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/04/20 14:14 |
| S241 | 1 | ("8882134").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:15 |
| S242 | 87 | ("1239498" \| "1322788" \| "1418929" \| "1832770" \| "20020125662" \| "20040011884" \| "20050253348" \| "20050253431" \| "20050264064" \| "20060290107" \| "20070001410" \| "20070075510" \| "20070114738" \| "20070257526" \| "20080042476" \| "20090072520" \| "20090302556" \| "20090302578" \| "20100032925" \| "20100072731" \| "20100109270" \| "20100109293" \| "20100140902" \| "20100148553" \| "20100314925" \| "20110074195" \| "20110101742" \| "20110115264" \| "20120080244" \| "20130154215" \| "3173396" \| "3831960" \| "4310167" \| "4433869" \| "4893826" \| "4936629" \| "5022669" \| "5158319" \| "5301968" \| "5417449" \| "5556118" \| "5581843" \| "5653460" \| "5664795" \| "5722594" \| "6086087" \| "6135222" \| "6267406" \| "6312005" \| "6394470" \| "6454286" \| "6540239" \| "6698788" \| "6702306" \| "6935652" \| "6938906" \| "7059625" \| "7261308" \| "7338122" \| "7481439" \| "7497449" \| "7559606" \| "7597332" \| "7740313" \| "7770970" \| "7780184" \| "7789413" \| "7832756" \| "7854435" \| "7887129" \| "7891732" \| "7938433" \| "7971897" \| "7992889" \| "8029007" \| "8070179" \| "8128119" \| "8157273" \| "8262107" \| "8276935" \| "D326748" \| "D431798").PN. OR ("8882134").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 14:16 |
| S243 | 1 | ("6361111").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:19 |
| S244 | 1 | ("20040251063").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:19 |
| S245 | 1 | ("6527294").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:20 |

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| S246 | 1 | ("20070045975").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/04/20 14:20 |
| S247 | 27 | ("20060001226" \| "20070045975" \| "20080296872" \| "20090033066" \| "5301970" \| "5520433" \| "5601302" \| "5709400" \| "5845924" \| "6099022" \| "6193263" \| "6203054" \| "6209892" \| "6398233" \| "6446990" \| "6540250" \| "6715783" \| "7377537" \| "7475900" \| "7753398").PN. OR ("8029014").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2015/04/20 14:30 |
| S249 | 2790 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 10:16 |
| S250 | 3337 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 10:16 |
| S251 | 102 | (B62B7/00).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S252 | 824 | (B62B7/008).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S253 | 686 | (B62B7/14).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S254 | 947 | (B62B7/142).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S255 | 1031 | (B62B9/102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S256 | 520 | (B62B9/12).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S257 | 3385 | S251 S252 S253 S254 S255 S256 | US-PGPUB; USPAT; USOCR; | OR | ON | 2015/12/07 10:17 |

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| | | | FPRS; EPO; JPO | | | |
| S258 | 1888686 | @pd>="20150420" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S259 | 6070 | S249 or S250 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S260 | 49 | S258 and S249 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S261 | 93 | S258 and S259 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S262 | 45 | S258 and S250 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:17 |
| S263 | 44 | S262 not S260 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:18 |
| S264 | 105 | S258 and S257 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:19 |
| S265 | 94 | S264 not S263 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:19 |
| S266 | 93 | S265 not S260 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2015/12/07 10:19 |
| S267 | 1 | ("8936261").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 12:33 |

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|---|---|---|---|---|---|---|
| S268 | 64 | ("20040164593" \| "20060261565" \| "20070045975" \| "20070069505" \| "20070187914" \| "20080054579" \| "20080150247" \| "20080179848" \| "20080303232" \| "20090033066" \| "20090102162" \| "20090256323" \| "20100013281" \| "20100102535" \| "20100127480" \| "20100230933" \| "20100244408" \| "20100259021" \| "20110204600" \| "20110291389" \| "20110304124" \| "20120025492" \| "20120153583" \| "20120242062" \| "20120261961" \| "20130113188" \| "4872692" \| "5018405" \| "5676386" \| "5722682" \| "5947555" \| "6513827" \| "6530591" \| "6581957" \| "6851700" \| "7032922" \| "7267359" \| "7377537" \| "7401803" \| "7681894" \| "7686323" \| "7753397" \| "7753398" \| "7789402" \| "7798500" \| "7938435" \| "8029014" \| "8033555" \| "8157286" \| "8205906" \| "8240700" \| "8251382" \| "8322744" \| "8366127" \| "8454049" \| "8465045" \| "8469388" \| "8474854" \| "8480116" \| "8485546" \| "8544873" \| "8550489" \| "8596669").PN. OR ("8936261").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 12:33 |
| S269 | 18 | ("1671774" \| "1707186" \| "20050167951" \| "20070194545" \| "20100052277" \| "20110163519" \| "20120118516" \| "7032922" \| "7871100" \| "8157273" \| "8251382" \| "8585075" \| "8651502" \| "8727370" \| "D686541").PN. OR ("9010773").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 13:12 |
| S270 | 1 | ("6,286,844").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2015/12/07 18:14 |
| S271 | 110 | (B62B7/00).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S272 | 855 | (B62B7/008).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S273 | 694 | (B62B7/14).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S274 | 989 | (B62B7/142).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S275 | 1052 | (B62B9/102).CPC. | US-PGPUB; | OR | ON | 2016/02/12 12:45 |

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|---|---|---|---|---|---|---|
| | | | USPAT; USOCR; FPRS; EPO; JPO | | | |
| S276 | 540 | (B62B9/12).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S277 | 3473 | S271 S272 S273 S274 S275 S276 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:45 |
| S278 | 3353 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 12:46 |
| S279 | 2802 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 12:46 |
| S280 | 279114 | @pd>="20151207" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:47 |
| S281 | 21 | S277 and S280 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:53 |
| S282 | 16 | S278 and S280 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:53 |
| S283 | 12 | S279 and S280 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:53 |
| S284 | 17 | S281 not (S282 or S283) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/02/12 12:53 |
| S285 | 2 | ("20070069504" \| "7401803").PN. OR ("9242665").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/02/12 13:16 |
| S286 | 70 | ("20030020259" \| "20040094935" \| "20060226635" \| "20060290107" \| | US-PGPUB; | OR | ON | 2016/02/12 13:18 |

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|---|---|---|---|---|---|---|
| | | "20070075525" \| "20070085303" \| "20070114738" \| "20070267833" \| "20080001370" \| "20080179863" \| "20080224432" \| "20090039620" \| "20090236826" \| "20090302578" \| "20100038886" \| "20100038887" \| "20100072731" \| "20100140902" \| "20100201089" \| "20100282800" \| "20100301585" \| "20110175330" \| "20120098219" \| "20120098237" \| "20120169021" \| "20130049331" \| "20130234419" \| "20130264787" \| "20130270800" \| "20140159346" \| "20140312586" \| "20140346756" \| "4542915" \| "4725071" \| "5338096" \| "5417449" \| "5664795" \| "6086087" \| "6267406" \| "6676140" \| "6702316" \| "6843498" \| "6877761" \| "7451999" \| "7699325" \| "7971884" \| "8070180" \| "8146926" \| "8157273" \| "8205894" \| "8282109" \| "8322745" \| "8398143" \| "8444171" \| "8480115" \| "8684395" \| "8714582" \| "8757646" \| "8807588" \| "8844964" \| "8857829" \| "8905427" \| "8915516" \| "D321850" \| "D359937" \| "D375706" \| "D429664" \| "D430076" \| "D431212" \| "D636300").PN. OR ("9227650").URPN. | USPAT; USOCR | | | |
| S287 | 1 | ("7475900").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 13:19 |
| S288 | 1 | ("4343124").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 15:17 |
| S289 | 1 | ("4340124").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 15:18 |
| S290 | 1 | ("20140361517").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/02/12 15:50 |
| S291 | 111 | (B62B7/00).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S292 | 864 | (B62B7/008).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S293 | 699 | (B62B7/14).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |

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|---|---|---|---|---|---|---|
| S294 | 993 | (B62B7/142).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S295 | 1054 | (B62B9/102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S296 | 542 | (B62B9/12).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S297 | 3486 | S291 S292 S293 S294 S295 S296 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:44 |
| S298 | 3358 | (280/650,657,647,648,658,639,642,643).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 16:45 |
| S299 | 2805 | (297/130,232,243,463.1).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 16:45 |
| S300 | 6106 | S298 or S299 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:45 |
| S301 | 83034 | @pd>="20160212" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:45 |
| S302 | 8 | S300 and S301 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 16:59 |
| S303 | 6 | S297 and S301 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2016/03/25 17:01 |
| S304 | 13 | ("20080231022" \| "20090243261" \| "20130113188" \| "6513827" \| "7267359" \| "7377537" \| "7798500" \| "7938435" \| "8061732" \| "8733784" \| "8764048" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:03 |

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|---|---|---|---|---|---|---|
| | | "8777253" \| "8955869").PN. OR ("9260128").URPN. | | | | |
| S305 | 94 | ("1239498" \| "1322788" \| "1418929" \| "1832770" \| "20020125662" \| "20040011884" \| "20050253348" \| "20050253431" \| "20050264064" \| "20060290107" \| "20070001410" \| "20070075510" \| "20070114738" \| "20070257526" \| "20080042476" \| "20080224451" \| "20090072520" \| "20090302556" \| "20090302578" \| "20100032925" \| "20100072731" \| "20100109270" \| "20100109293" \| "20100140902" \| "20100148553" \| "20100314925" \| "20110074195" \| "20110101742" \| "20110115264" \| "20120080244" \| "20130154215" \| "20140191483" \| "3173396" \| "3831960" \| "4310167" \| "4433869" \| "4893826" \| "4936629" \| "5022669" \| "5158319" \| "5301968" \| "5417449" \| "5556118" \| "5581843" \| "5653460" \| "5664795" \| "5722594" \| "6086087" \| "6135222" \| "6267406" \| "6312005" \| "6394470" \| "6454286" \| "6540239" \| "6698788" \| "6702306" \| "6877762" \| "6935652" \| "6938906" \| "6981709" \| "7059625" \| "7261308" \| "7338122" \| "7481439" \| "7497449" \| "7559606" \| "7597332" \| "7740313" \| "7770970" \| "7780184" \| "7789413" \| "7832756" \| "7854435" \| "7887129" \| "7891732" \| "7938433" \| "7971897" \| "7992889" \| "8029007" \| "8070179" \| "8128118" \| "8128119" \| "8157273" \| "8262107" \| "8276935" \| "8882134" \| "9056622" \| "D326748" \| "D431798").PN. OR ("9260127").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:04 |
| S306 | 1 | ("20150123440").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 17:20 |
| S307 | 1 | ("8955869").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 17:22 |
| S308 | 32 | ("20010033069" \| "20060001226" \| "20060131841" \| "20070090619" \| "20080224451" \| "20080231022" \| "6045145" \| "6286844" \| "6513827" \| "6851693" \| "6923467" \| "7249779" \| "7311323" \| "7320471" \| "7367581" \| "7377537" \| "7475900" \| "7481439" \| "7497461" \| "7681894" \| "7766366" \| "7938435" \| "8029007" \| "8033554" \| "8061732" \| "8231136" \| "8444171" \| "8458880" \| "8696016" \| "8733784" \| "8764048").PN. OR ("8955869").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:22 |
| S309 | 2 | "39773911".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/25 17:27 |
| S310 | 32 | ("4657269" \| "4836573" \| "5184835" \| | US- | OR | ON | 2016/03/25 |

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|---|---|---|---|---|---|---|
| | | "5338096" \| "5664795" \| "5911432").PN. OR ("6045145").URPN. | PGPUB; USPAT; USOCR | | | 17:33 |
| S311 | 28 | ("1203729" \| "1321009" \| "20020036391" \| "20050023783" \| "20070075525" \| "20070216138" \| "20070222167" \| "20090315300" \| "20100072732" \| "2769482" \| "4923208" \| "5338096" \| "5417449" \| "5664795" \| "5722682" \| "5740989" \| "5887935" \| "6045145" \| "6378892" \| "6676140" \| "7011318" \| "7445229" \| "8282119" \| "D587635" \| "D614540").PN. OR ("8857830").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:37 |
| S312 | 15 | "37454081".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/25 17:37 |
| S313 | 1 | "41399621".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/25 17:41 |
| S314 | 6 | ("2009/0302578").URPN. | USPAT | OR | ON | 2016/03/25 17:42 |
| S315 | 70 | ("20030020259" \| "20040094935" \| "20060226635" \| "20060290107" \| "20070075525" \| "20070085303" \| "20070114738" \| "20070267833" \| "20080001370" \| "20080179863" \| "20080224432" \| "20090039620" \| "20090236826" \| "20090302578" \| "20100038886" \| "20100038887" \| "20100072731" \| "20100140902" \| "20100201089" \| "20100282800" \| "20100301585" \| "20110175330" \| "20120098219" \| "20120098237" \| "20120169021" \| "20130049331" \| "20130234419" \| "20130264787" \| "20130270800" \| "20140159346" \| "20140312586" \| "20140346756" \| "4542915" \| "4725071" \| "5338096" \| "5417449" \| "5664795" \| "6086087" \| "6267406" \| "6676140" \| "6702316" \| "6843498" \| "6877761" \| "7451999" \| "7699325" \| "7971884" \| "8070180" \| "8146926" \| "8157273" \| "8205894" \| "8282109" \| "8322745" \| "8398143" \| "8444171" \| "8480115" \| "8684395" \| "8714582" \| "8757646" \| "8807588" \| "8844964" \| "8857829" \| "8905427" \| "8915516" \| "D321850" \| "D359937" \| "D375706" \| "D429664" \| "D430076" \| "D431212" \| "D636300").PN. OR ("9227650").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:43 |
| S316 | 108 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$ or US-20030025304-$ or US-20070187914-$ or US-20070069505-$ or US-20080231022-$ or US-20100301585-$ or US-20100013281-$ or US-20150360709-$ or US-20070069504-$ or US-20100072732-$ or | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 17:54 |

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|---|---|---|---|---|---|---|
| | | US-20090302578-$ or US-20130113188-$ or US-20090243261-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$ or US-8764048-$ or US-8061732-$).did. or (US-8733784-$ or US-8696016-$ or US-8231136-$ or US-8458880-$ or US-7249779-$ or US-7311323-$ or US-8444171-$ or US-8033554-$ or US-7681894-$ or US-8955869-$ or US-8905427-$ or US-8882134-$ or US-8029014-$ or US-7789402-$ or US-7658399-$ or US-5167425-$ or US-8936261-$ or US-9010773-$ or US-9119483-$ or US-9200746-$ or US-9199659-$ or US-9108659-$ or US-9073563-$ or US-9242665-$ or US-7401803-$ or US-9227650-$ or US-9260128-$).did. or (US-9260127-$ or US-8857830-$ or US-2769482-$).did. or (US-3000645-$ or US-2453631-$).did. | | | | |
| S317 | 1 | ("20090290107").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 17:56 |
| S318 | 1 | ("20060290107").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 17:58 |
| S319 | 1 | ("4542915").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 18:07 |
| S320 | 2 | "47750100".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/25 21:54 |
| S321 | 1 | ("6209892").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2016/03/25 23:02 |
| S322 | 60 | ("3829113" \| "4729572" \| "4768795" \| "4861105" \| "5056865" \| "5076599" \| "5146656" \| "5322343" \| "5676386" \| "5727798" \| "5820144" \| "5887889").PN. OR ("6209892").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/25 23:02 |

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|---|---|---|---|---|---|---|
| S323 | 60 | ("3829113" \| "4729572" \| "4768795" \| "4861105" \| "5056865" \| "5076599" \| "5146656" \| "5322343" \| "5676386" \| "5727798" \| "5820144" \| "5887889").PN. OR ("6209892").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2016/03/28 11:14 |
| S324 | 0 | (A stroller, comprising a stroller frame a plurality of wheels, including front and rear wheels a first seat coupled to the stroller frame at a first vertical position closer to a handle of the stroller frame and configured to hold a first child in the stroller a second seat attachment coupled to the stroller frame at a second vertical position substantially below the first vertical position and closer to the front wheels and comprising a left seat support element, wherein the left seat support element comprises a first connector portion releasably connected to the stroller frame closer to left front wheel and a left seat connector releasably connecting a second seat in either a forward or backward position and a right seat support element, wherein the right seat support element comprises a second connector portion releasably connected to the stroller frame closer to a right front wheel and a right seat connector releasably connecting the second seat in either a forward or backward position between the left and right seat support connectors and the second seat releasably connected to the left seat connector and the right seat connector and configured to hold a second child in the stroller while the first seat holds the first child).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:20 |
| S325 | 0 | (stroller frame wheel seat first vertical position handle child attach$4 coupl$3 left seat support element, first connector portion releas$4 connect$4 forward backward position).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:42 |
| S326 | 0 | (stroller frame wheel seat vertical position handle attach$4 coupl$3 left seat support element, first connector portion releas$4 connect$4 forward backward position).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:42 |
| S327 | 0 | (stroller frame wheel seat vertical position handle attach$4 coupl$3 left support element portion releas$4 connect$4 forward backward position).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:43 |
| S328 | 0 | (stroller frame wheel seat vertical position handle attach$4 coupl$3 left support element portion releas$4 connect$4 forward backward).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:43 |
| S329 | 0 | (stroller frame wheel seat vertical position handle attach$4 coupl$3 left support$4 releas$4 connect$4 forward backward).clm. | US-PGPUB; USPAT; USOCR; FPRS; | AND | ON | 2016/03/28 13:43 |


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|---|---|---|---|---|---|---|
| | | | EPO; JPO | | | |
| S330 | 3 | (stroller frame wheel seat vertical position handle attach$4 left support$4 releas$4 connect$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:44 |
| S331 | 14 | (stroller frame wheel seat vertical position handle attach$4 support$4 releas$4 connect$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:45 |
| S332 | 15 | (stroller frame wheel seat vertical position handle attach$4 releas$4 connect$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:46 |
| S333 | 1 | S332 not S331 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:46 |
| S334 | 18 | (stroller frame wheel seat vertical position handle attach$4 releas$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:47 |
| S335 | 3 | S334 not S332 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:47 |
| S336 | 25 | (stroller frame wheel seat vertical position$4 attach$4 releas$4).clm. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:48 |
| S337 | 7 | S336 not S334 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2016/03/28 13:48 |
| S338 | 1 | "41399621".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2016/03/28 13:48 |
| S339 | 1 | ("20160339940").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/08 16:58 |
| S340 | 3453 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; | OR | ON | 2017/06/08 17:22 |


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|---|---|---|---|---|---|---|
| | | | USOCR; FPRS; EPO; JPO | | | |
| S341 | 2353 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:23 |
| S342 | 5184262 | @pd>="20160325" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:31 |
| S343 | 5004 | S340 or S341 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:33 |
| S344 | 254 | S342 and S343 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/08 17:33 |
| S346 | 4 | (Lee near2 (Jon and Hee)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/08 17:52 |
| S347 | 14 | (Roe near2 Megan).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/12 08:15 |
| S348 | 1 | (Simpson near2 (Stacy and Noel)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2017/06/12 08:16 |
| S349 | 66 | ("1707186" \| "20010033069" \| "20060001226" \| "20060131841" \| "20060290107" \| "20070090619" \| "20080224451" \| "20080231022" \| "20090302578" \| "3000645" \| "4542915" \| "5338096" \| "6045145" \| "6209892" \| "6286844" \| "6378892" \| "6443467" \| "6513827" \| "6561526" \| "6676140" \| "6752405" \| "6851693" \| "6923467" \| "7249779" \| "7311323" \| "7320471" \| "7367581" \| "7377537" \| "7401803" \| "7475900" \| "7481439" \| "7497461" \| "7677585" \| "7681894" \| "7766366" \| "7896384" \| "7938435" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 09:35 |

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|---|---|---|---|---|---|---|
| | | "8029007" \| "8029014" \| "8033554" \| "8061732" \| "8157273" \| "8231136" \| "8251382" \| "8262103" \| "8336904" \| "8444171" \| "8458880" \| "8696016" \| "8733784" \| "8764048" \| "8882134" \| "8905427" \| "8936261" \| "9010773" \| "9108654" \| "9108659" \| "9119483" \| "9199659" \| "9200746" \| "9227650" \| "9242665" \| "9260127" \| "9260128").PN. | | | | |
| S350 | 111 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$ or US-20030025304-$ or US-20070187914-$ or US-20070069505-$ or US-20080231022-$ or US-20100301585-$ or US-20100013281-$ or US-20150360709-$ or US-20070069504-$ or US-20100072732-$ or US-20090302578-$ or US-20130113188-$ or US-20090243261-$ or US-20130049331-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$ or US-8764048-$ or US-8061732-$).did. or (US-8733784-$ or US-8696016-$ or US-8231136-$ or US-8458880-$ or US-7249779-$ or US-7311323-$ or US-8444171-$ or US-8033554-$ or US-7681894-$ or US-8955869-$ or US-8905427-$ or US-8882134-$ or US-8029014-$ or US-7789402-$ or US-7658399-$ or US-5167425-$ or US-8936261-$ or US-9010773-$ or US-9119483-$ or US-9200746-$ or US-9199659-$ or US-9108659-$ or US-9073563-$ or US-9242665-$ or US-7401803-$ or US-9227650-$ or US-9260128-$).did. or (US-9260127-$ or US-8857830-$ or US-2769482-$ or US-4542915-$ or US-6715783-$).did. or (US-3000645-$ or US-2453631-$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 09:36 |
| S351 | 4 | S349 not S350 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 09:41 |

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|---|---|---|---|---|---|---|
| S352 | 34 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 09:44 |
| S353 | 96 | ("1269379" \| "1707186" \| "1890469" \| "20020158444" \| "20040251063" \| "20070045975" \| "20080122200" \| "20080224451" \| "20090115151" \| "20090160162" \| "20090289440" \| "20100038887" \| "20100140902" \| "20110175330" \| "20140265258" \| "3053493" \| "3223431" \| "3612603" \| "3726536" \| "4222132" \| "4349938" \| "4391453" \| "4403807" \| "4684148" \| "4725071" \| "4805938" \| "4834415" \| "4834452" \| "4858947" \| "4872692" \| "4969656" \| "5018754" \| "5033761" \| "5064209" \| "5167425" \| "5221106" \| "5230523" \| "5338096" \| "5522121" \| "5653460" \| "5664795" \| "5772235" \| "5887935" \| "5918892" \| "6086087" \| "6099022" \| "6267406" \| "6357784" \| "6361111" \| "6375213" \| "6431579" \| "6527294" \| "6536842" \| "6585284" \| "6676140" \| "6679506" \| "6752405" \| "6843498" \| "6935652" \| "6938906" \| "6938954" \| "7025364" \| "7364183" \| "7367581" \| "7516966" \| "7597332" \| "7896384" \| "8128103" \| "8157273" \| "8220822" \| "8282120" \| "8297642" \| "8398143" \| "8905427" \| "D296540" \| "D300310" \| "D305316" \| "D321850" \| "D328047" \| "D348489" \| "D360392" \| "D370437" \| "D382516" \| "D404344" \| "D430512" \| "D431212" \| "D452191" \| "D568794" \| "D593458" \| "D595621" \| "D598333").PN. OR ("9517787").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 09:46 |
| S354 | 8 | "48223173".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2017/06/12 09:47 |
| S355 | 10 | ("2013/0113185").URPN. | USPAT | OR | ON | 2017/06/12 09:48 |
| S356 | 36 | ("1486118" \| "2769482" \| "2993702" \| "3253860" \| "3497234" \| "3612603" \| "4155588" \| "4181356" \| "4288124" \| "4381870" \| "4596405" \| "4632409" \| "4711489" \| "4813742" \| "4946180" \| "5161811" \| "5201535" \| "5213360" \| "5374073" \| "5401076" \| "5547205" \| "5848797" \| "5988657" \| "6135479" \| "6276709" \| "D340140").PN. OR ("6561526").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 09:52 |
| S357 | 22 | ("1707186").URPN. | USPAT | OR | ON | 2017/06/12 09:53 |
| S358 | 0 | S350 and (cover$4 same door) | US-PGPUB; USPAT; USOCR; FPRS; | OR | ON | 2017/06/12 09:56 |

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|---|---|---|---|---|---|---|
| | | | EPO; JPO | | | |
| S359 | 0 | S350 and (cover$4 same2 door) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:00 |
| S360 | 17 | S350 and (cover$4 same attach$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:00 |
| S361 | 1 | ("7377537").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:08 |
| S362 | 56 | ("4836573" \| "4892327" \| "5028061" \| "5069474" \| "5257799" \| "5460430" \| "5887935" \| "5921574" \| "6099022" \| "6523853" \| "6594840" \| "6739649" \| "7281732").PN. OR ("7377537").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:08 |
| S363 | 3 | S349 and door | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:13 |
| S364 | 1 | ("9517787").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:19 |
| S365 | 1 | ("9517789").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:20 |
| S366 | 1 | ("9561817").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:20 |
| S367 | 1 | ("9493179").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:21 |
| S368 | 3453 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:22 |
| S369 | 2353 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:22 |
| S370 | 5004 | S368 or S369 | US-PGPUB; USPAT; USOCR; | OR | ON | 2017/06/12 10:22 |

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|---|---|---|---|---|---|---|
| | | | FPRS; EPO; JPO | | | |
| S371 | 23 | S370 and (cover$4 same door) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:22 |
| S372 | 5 | S370 and (cavit$3 same door) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:23 |
| S373 | 35 | ("2917316" \| "2993702" \| "3110504" \| "3248125" \| "3309101" \| "5579556" \| "5622375" \| "5664795" \| "5725238" \| "6086087" \| "6276759" \| "6312005" \| "D319493" \| "D444738" \| "D450265").PN. OR ("6447001").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:23 |
| S374 | 40 | S370 and (cavit$3 same cover$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/06/12 10:24 |
| S375 | 1 | ("5522121").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:28 |
| S376 | 25 | ("0461069" \| "1318850" \| "1352647" \| "1688148" \| "1707186" \| "4805938").PN. OR ("5522121").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:29 |
| S377 | 1 | ("6449801").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:29 |
| S378 | 1 | ("20070114738").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 10:30 |
| S379 | 2 | "38052732".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2017/06/12 10:30 |
| S380 | 41 | ("20010033069" \| "20020135142" \| "20030025304" \| "20030127835" \| "20040164510" \| "20070090619" \| "5463853" \| "5622375" \| "5625923" \| "5725238" \| "5882022" \| "5909887" \| "5967190" \| "6098492" \| "6422634" \| "6447001" \| "6453921" \| "6530591" \| "6540238" \| "6557878" \| "6698772" \| "6827356" \| "6893028" \| "7159829" \| "7290776").PN. OR ("8029007").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:30 |
| S381 | 13 | ("20040164510" \| "20070090619" \| "20120098237" \| "20130234419" \| "20130264787" \| "20160001805" \| "3061328" \| "5622375" \| "6422634" \| "6530591" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:31 |

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|---|---|---|---|---|---|---|
| | | "7004272" \| "8029007").PN. OR ("9545941").URPN. | | | | |
| S382 | 91 | ("1239498" \| "1322788" \| "1418929" \| "1832770" \| "20020125662" \| "20040011884" \| "20050253348" \| "20050253431" \| "20050264064" \| "20060290107" \| "20070001410" \| "20070075510" \| "20070114738" \| "20070257526" \| "20080042476" \| "20090072520" \| "20090302556" \| "20090302578" \| "20100032925" \| "20100072731" \| "20100109270" \| "20100109293" \| "20100140902" \| "20100148553" \| "20100314925" \| "20110074195" \| "20110101742" \| "20110115264" \| "20120080244" \| "20130154215" \| "3173396" \| "3831960" \| "4310167" \| "4433869" \| "4893826" \| "4936629" \| "5022669" \| "5158319" \| "5301968" \| "5417449" \| "5556118" \| "5581843" \| "5653460" \| "5664795" \| "5722594" \| "6086087" \| "6135222" \| "6267406" \| "6312005" \| "6394470" \| "6454286" \| "6540239" \| "6698788" \| "6702306" \| "6935652" \| "6938906" \| "7059625" \| "7261308" \| "7338122" \| "7481439" \| "7497449" \| "7559606" \| "7597332" \| "7740313" \| "7770970" \| "7780184" \| "7789413" \| "7832756" \| "7854435" \| "7887129" \| "7891732" \| "7938433" \| "7971897" \| "7992889" \| "8029007" \| "8070179" \| "8128119" \| "8157273" \| "8262107" \| "8276935" \| "D326748" \| "D431798").PN. OR ("8882134").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:33 |
| S383 | 42 | ("0522608" \| "1707186" \| "3223431" \| "3524655" \| "3997180" \| "4620686" \| "4632409" \| "4836573" \| "6267406" \| "6752405" \| "7364183").PN. OR ("8157273").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:46 |
| S384 | 15 | ("20050242548" \| "20070052271" \| "4518139" \| "4681340" \| "6022077" \| "6536842").PN. OR ("7364183").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 10:49 |
| S385 | 1 | ("6286844").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 12:09 |
| S386 | 119 | ("1727335" \| "2435733" \| "2508905" \| "2509103" \| "2574743" \| "2722966" \| "2805076" \| "2864429" \| "3083997" \| "3116069" \| "3549164" \| "3829113" \| "4108468" \| "4412689" \| "4537414" \| "4570956" \| "4697845" \| "4743063" \| "4750783" \| "4762331" \| "4768795" \| "4786064" \| "4822064" \| "4832354" \| "4834403" \| "4861105" \| "4874182" \| "4915401" \| "4921261" \| "5121940" \| "5133567" \| "5197753" \| "5201535" \| "5203577" \| "5234224" \| "5265931" \| "5364137" \| "5375869" \| "5385386" \| "5499831" \| "5527096" \| "5564778" \| "5567008" \| "5601297" \| "5676386" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:13 |


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|---|---|---|---|---|---|---|
| | | "5707106" \| "5727798" \| "5772279" \| "5865447" \| "5876046" \| "5974555").PN. OR ("6286844").URPN. | | | | |
| S387 | 91 | ("0706448" \| "1480451" \| "1508500" \| "1952467" \| "20010013689" \| "20040212161" \| "20060085953" \| "20070085302" \| "20070120404" \| "20090029784" \| "20090181780" \| "20110278810" \| "20120023662" \| "20120060326" \| "20120235450" \| "20130334781" \| "20140042729" \| "20150008659" \| "20150042056" \| "20150042076" \| "20150175189" \| "2708585" \| "2961248" \| "3564626" \| "4476649" \| "5099528" \| "5201535" \| "5562548" \| "5676386" \| "5772279" \| "5846136" \| "5947555" \| "5987665" \| "5988670" \| "6250654" \| "6286844" \| "6471597" \| "6671926" \| "6872146" \| "6893040" \| "7037205" \| "7100724" \| "7354352" \| "7377537" \| "7445559" \| "7475942" \| "7497461" \| "7607734" \| "7681894" \| "7686323" \| "7694996" \| "7766366" \| "7905791" \| "7938435" \| "8029014" \| "8251382" \| "8292750" \| "8550556" \| "8672341" \| "8746794" \| "8851505" \| "8944927" \| "8955869" \| "9085312" \| "D156930" \| "D371094" \| "D377466" \| "D408768" \| "D442895" \| "D452195" \| "D475951" \| "D481976" \| "D498713" \| "D498714" \| "D519063" \| "D604055" \| "D622640" \| "D623429" \| "D667229" \| "D682562" \| "D684789" \| "D687352" \| "D743304").PN. OR ("9421992").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:16 |
| S388 | 20 | ("20010040357" \| "20080106070" \| "20100127480" \| "20110181026" \| "20160144879" \| "5257799" \| "5645293" \| "6102432" \| "6312005" \| "7281732" \| "7641216" \| "8141895" \| "8240698" \| "8585075" \| "8696015" \| "8696016" \| "8998241" \| "9050993" \| "9421991" \| "9540028").PN. OR ("9637155").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:16 |
| S389 | 9 | ("20120326474" \| "4306749" \| "4634177" \| "4915446" \| "5947556" \| "6286844" \| "6595583" \| "8251382" \| "8678498").PN. OR ("9346378").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:21 |
| S390 | 9 | ("20120326474" \| "4306749" \| "4634177" \| "4915446" \| "5947556" \| "6286844" \| "6595583" \| "8251382" \| "8678498").PN. OR ("9346378").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:54 |
| S391 | 28 | ("20030015895" \| "20090066130" \| "20090295207" \| "4306749" \| "4750783" \| "5385387" \| "5478135" \| "5562548" \| "5586351" \| "5997098" \| "6017088" \| "6170911" \| "6299249" \| "6331032" \| "6336682" \| "6347832" \| "6428099" \| "6428100" \| "6443522" \| "6554358" \| "6705676" \| "6793280" \| "6921359" \| "6979057" \| "7090294").PN. OR ("8678498").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 12:55 |
| S392 | 54 | ("20080150247" \| "20080179848" \| "20080224451" \| "20080303232" \| | US-PGPUB; | OR | ON | 2017/06/12 13:08 |

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|---|---|---|---|---|---|---|
| | | "20090102162" \| "20090121455" \| "20090256323" \| "20100001492" \| "20100109272" \| "20100127480" \| "4645371" \| "5028061" \| "5257799" \| "5364137" \| "5676386" \| "5772279" \| "5865447" \| "5947555" \| "6286844" \| "6446990" \| "6513827" \| "6991248" \| "7032922" \| "7296820" \| "7314247" \| "7367581" \| "7377537" \| "7584985" \| "7658399" \| "7681894" \| "7686323" \| "7694996" \| "7712765" \| "7753398").PN. OR ("8251382").URPN. | US-PGPUB; USPAT; USOCR | | | |
| S393 | 15 | ("20080231022" \| "5773379" \| "5947555" \| "6286844" \| "6893040" \| "7032922" \| "7267359" \| "7475900" \| "7658399" \| "7681894" \| "7766366" \| "7938435" \| "8033555" \| "D621306").PN. OR ("8851505").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:09 |
| S394 | 58 | ("20010013689" \| "20050264062" \| "20060214397" \| "20070257458" \| "20070296182" \| "20080136127" \| "20080231023" \| "20100219616" \| "20100230933" \| "20120025492" \| "4834403" \| "5028061" \| "5201535" \| "5203577" \| "5257799" \| "5277472" \| "5364137" \| "5564778" \| "5567008" \| "5676386" \| "5772279" \| "5794951" \| "5947555" \| "6086086" \| "6089653" \| "6286844" \| "6318807" \| "6446990" \| "6572134" \| "6595583" \| "6793280" \| "6802514" \| "6863286" \| "6942294" \| "6983986" \| "7032922" \| "7070197" \| "7207628" \| "7370913" \| "7377537" \| "7681894" \| "7686322" \| "7694996" \| "7753398" \| "8029014" \| "8070228" \| "8172253" \| "8282120" \| "8382150").PN. OR ("8651502").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:09 |
| S395 | 76 | ("3779655" \| "4191397" \| "4216974" \| "4412688" \| "4602889" \| "4634177" \| "4645371" \| "4834403" \| "5028061" \| "5257799" \| "5527096" \| "5772279" \| "5865447" \| "6286844").PN. OR ("6513827").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:12 |
| S396 | 49 | ("4915401" \| "5133567" \| "5277472" \| "5564778" \| "5644816" \| "5676386" \| "5772279").PN. OR ("5865447").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:13 |
| S397 | 88 | ("0763771" \| "0921361" \| "1167525" \| "2509972" \| "2982562" \| "3029087" \| "3083997" \| "3596986" \| "4306749" \| "4345791" \| "4371206" \| "4385769" \| "4501032" \| "4545613" \| "4634177" \| "4664396" \| "4733909" \| "4861105" \| "4915446" \| "4943113" \| "4984813" \| "4998307" \| "5052750" \| "5058283" \| "5203577" \| "5277472" \| "5385387" \| "D294777" \| "D305583" \| "D322001" \| "D325132").PN. OR ("5567008").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:14 |
| S398 | 92 | ("2982562" \| "3100651" \| "3290050" \| "3330575" \| "3784252" \| "4072318" \| "4378946" \| "4412688" \| "4428598" \| "4478427" \| "4606550" \| "4762364" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:16 |

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|---|---|---|---|---|---|---|
| | | "4815764" \| "5004253" \| "5074575").PN. OR ("5201535").URPN. | | | | |
| S399 | 119 | ("1727335" \| "2435733" \| "2508905" \| "2509103" \| "2574743" \| "2722966" \| "2805076" \| "2864429" \| "3083997" \| "3116069" \| "3549164" \| "3829113" \| "4108468" \| "4412689" \| "4537414" \| "4570956" \| "4697845" \| "4743063" \| "4750783" \| "4762331" \| "4768795" \| "4786064" \| "4822064" \| "4832354" \| "4834403" \| "4861105" \| "4874182" \| "4915401" \| "4921261" \| "5121940" \| "5133567" \| "5197753" \| "5201535" \| "5203577" \| "5234224" \| "5265931" \| "5364137" \| "5375869" \| "5385386" \| "5499831" \| "5527096" \| "5564778" \| "5567008" \| "5601297" \| "5676386" \| "5707106" \| "5727798" \| "5772279" \| "5865447" \| "5876046" \| "5974555").PN. OR ("6286844").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:23 |
| S400 | 82 | S397 not S399 | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:23 |
| S401 | 20 | ("20040164593" \| "3145442" \| "5865447" \| "5947555" \| "6446314" \| "7032922").PN. OR ("7681894").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:28 |
| S402 | 59 | ("20020175498" \| "20020195797" \| "20030111825" \| "20040046364" \| "20050098982" \| "20060071452" \| "20060237949" \| "5772235" \| "5823564" \| "7032922").PN. OR ("7267359").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2017/06/12 13:30 |
| S403 | 1 | ("5201535").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 13:32 |
| S404 | 1 | ("6286844").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2017/06/12 13:47 |
| S405 | 3477 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/11/13 16:13 |
| S406 | 2369 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/11/13 16:13 |
| S407 | 5040 | S405 or S406 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/11/13 16:13 |
| S408 | 1329175 | @pd>="20170608" | US- | OR | ON | 2017/11/13 |

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|---|---|---|---|---|---|---|
| | | | PGPUB; USPAT; USOCR; FPRS; EPO; JPO | | | 16:16 |
| S409 | 44 | S407 and S408 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2017/11/13 16:16 |
| S410 | 3 | "37808038".FMID. | US-PGPUB; USPAT; FPRS | OR | ON | 2017/11/13 17:27 |
| S423 | 1 | ("20180201293").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/15 10:50 |
| S424 | 39 | (Zehfuss near2 Mark).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 10:51 |
| S425 | 8 | (Lee near2 (Jon and Hee)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2019/04/15 10:52 |
| S426 | 18 | (Roe near2 Megan).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2019/04/15 10:52 |
| S427 | 3 | (Simpson near2 (Stacy and Noel)).in. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT | OR | ON | 2019/04/15 10:52 |
| S428 | 151 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$ or US-20030025304-$ or US-20070187914-$ or US-20070069505-$ or US-20080231022-$ or US-20100301585-$ or US-20100013281-$ or US-20150360709-$ or US-20070069504-$ or US-20100072732-$ or US-20090302578-$ or US-20130113188-$ or US-20130049331-$ or US-20160001805-$ or US-20040164593-$ or US-20070075525-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 11:03 |

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|---|---|---|---|---|---|---|
| | | or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$ or US-3000645-$).did. or (US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$ or US-8764048-$ or US-8061732-$ or US-8733784-$).did. or (US-8696016-$ or US-8231136-$ or US-8458880-$ or US-7249779-$ or US-7311323-$ or US-8444171-$ or US-8033554-$ or US-7681894-$ or US-8955869-$ or US-8905427-$ or US-8882134-$ or US-8029014-$ or US-7789402-$ or US-7658399-$ or US-5167425-$ or US-8936261-$ or US-9010773-$ or US-9119483-$ or US-9200746-$ or US-9199659-$ or US-9108659-$ or US-9073563-$ or US-9242665-$ or US-7401803-$ or US-9227650-$ or US-9260128-$ or US-9260127-$).did. or (US-8857830-$ or US-2769482-$ or US-4542915-$ or US-6715783-$ or US-9108654-$ or US-9630642-$ or US-9517787-$ or US-9327752-$ or US-6561526-$ or US-8967171-$ or US-9517789-$ or US-9561817-$ or US-5522121-$ or US-9545941-$ or US-9056622-$ or US-9403550-$ or US-8899615-$ or US-7364183-$ or US-9637155-$ or US-9421992-$ or US-9545940-$ or US-9346378-$ or US-8678498-$ or US-4915446-$ or US-4634177-$ or US-4306749-$ or US-8851505-$).did. or (US-8651502-$ or US-6893040-$ or US-6446990-$ or US-5865447-$ or US-5772279-$ or US-5567008-$ or US-8657326-$ or US-8491000-$ or US-6155740-$ or US-5947555-$ or US-7267359-$ or US-9776652-$ or US-9771095-$ or US-9725106-$ or US-9701333-$).did. or (US-3000645-$ or US-2453631-$ or US-1707186-$).did. | | | | |
| S429 | 55 | S424 S425 S426 S427 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:25 |
| S430 | 3 | S424 S425 S426 S427 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | AND | ON | 2019/04/15 12:25 |
| S431 | 80 | ("1707186" \| "20010033069" \| "20020109321" \| "20060001226" \| "20060131841" \| | US-PGPUB; | OR | ON | 2019/04/15 12:26 |

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|---|---|---|---|---|---|---|
| | | "20060290107" \| "20070090619" \| "20080224451" \| "20080231022" \| "20090302578" \| "20140191483" \| "20160046315" \| "3000645" \| "4542915" \| "5201535" \| "5338096" \| "5567008" \| "6045145" \| "6209892" \| "6286844" \| "6378892" \| "6443467" \| "6513827" \| "6561526" \| "6676140" \| "6752405" \| "6851693" \| "6923467" \| "7249779" \| "7311323" \| "7320471" \| "7367581" \| "7377537" \| "7401803" \| "7475900" \| "7481439" \| "7497461" \| "7677585" \| "7681894" \| "7766366" \| "7832755" \| "7896384" \| "7938435" \| "8029007" \| "8029014" \| "8033554" \| "8061732" \| "8157273" \| "8231136" \| "8251382" \| "8262103" \| "8336904" \| "8444171" \| "8458880" \| "8585075" \| "8596670" \| "8696016" \| "8733784" \| "8764048" \| "8882134" \| "8905427" \| "8936261" \| "9010773" \| "9108654" \| "9108659" \| "9119483" \| "9199659" \| "9200746" \| "9227650" \| "9242665" \| "9260127" \| "9260128" \| "9517787" \| "9561817" \| "9701333" \| "9725106" \| "9771095" \| "9776652").PN. OR ("9944305").URPN. | USPAT; USOCR | | | |
| S432 | 3809 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:29 |
| S433 | 2627 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:29 |
| S434 | 5496 | S432 or S433 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:29 |
| S435 | 7949590 | @pd>="20171113" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:29 |
| S436 | 308 | S434 and S435 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/04/15 12:30 |
| S437 | 2 | ("20100140902" \| "20140333039").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 12:52 |
| S438 | 84 | ("1707186" \| "20010033069" \| "20020109321" \| "20030025304" \| "20060001226" \| | US-PGPUB; | OR | ON | 2019/04/15 12:54 |

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| | | "20060131841" \| "20060290107" \| "20070001429" \| "20070085303" \| "20070090619" \| "20070114738" \| "20080224451" \| "20080231022" \| "20090302578" \| "20140191483" \| "20160046315" \| "3000645" \| "4542915" \| "5201535" \| "5338096" \| "5567008" \| "6045145" \| "6209892" \| "6286844" \| "6378892" \| "6443467" \| "6513827" \| "6561526" \| "6676140" \| "6752405" \| "6851693" \| "6923467" \| "7249779" \| "7311323" \| "7320471" \| "7367581" \| "7377537" \| "7401803" \| "7475900" \| "7481439" \| "7497461" \| "7677585" \| "7681894" \| "7766366" \| "7832755" \| "7896384" \| "7938435" \| "8029007" \| "8029014" \| "8033554" \| "8061732" \| "8157273" \| "8231136" \| "8251382" \| "8262103" \| "8336904" \| "8444171" \| "8458880" \| "8585075" \| "8596670" \| "8696016" \| "8733784" \| "8764048" \| "8882134" \| "8905427" \| "8936261" \| "9010773" \| "9108654" \| "9108659" \| "9119483" \| "9199659" \| "9200746" \| "9227650" \| "9242665" \| "9260127" \| "9260128" \| "9517787" \| "9561817" \| "9701333" \| "9725106" \| "9771095" \| "9776652").PN. | USPAT; USOCR | | | |
| S439 | 7 | S438 not S428 | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 12:55 |
| S440 | 11 | ("20060214395" \| "20070085303" \| "20090302578" \| "4763911" \| "5356172" \| "5395154" \| "5593173" \| "6431647").PN. OR ("8596670").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/15 12:58 |
| S441 | 12 | ("2007/0085303").URPN. | USPAT | OR | ON | 2019/04/15 13:05 |
| S443 | 1 | ("7475900").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/15 14:37 |
| S444 | 1 | ("7377537").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/15 14:47 |
| S445 | 1 | ("7677585").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/28 23:08 |
| S446 | 1 | ("7481439").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/28 23:09 |
| S447 | 21 | ("4222132" \| "4805938" \| "4969656" \| "5064209" \| "5653460" \| "5887935" \| "5918892" \| "6155592" \| "6523840" \| "6527294" \| "6752405" \| "D360392").PN. OR ("7481439").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:10 |
| S448 | 94 | ("1239498" \| "1322788" \| "1418929" \| "1832770" \| "20020125662" \| "20040011884" \| | US-PGPUB; | OR | ON | 2019/04/28 23:10 |

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|---|---|---|---|---|---|---|
| | | "20050253348" \| "20050253431" \| "20050264064" \| "20060290107" \| "20070001410" \| "20070075510" \| "20070114738" \| "20070257526" \| "20080042476" \| "20090072520" \| "20090302556" \| "20090302578" \| "20100032925" \| "20100072731" \| "20100109270" \| "20100109293" \| "20100140902" \| "20100148553" \| "20100314925" \| "20110074195" \| "20110101742" \| "20110115264" \| "20120080244" \| "20130154215" \| "3173396" \| "3831960" \| "4310167" \| "4433869" \| "4893826" \| "4936629" \| "5022669" \| "5158319" \| "5301968" \| "5417449" \| "5556118" \| "5581843" \| "5653460" \| "5664795" \| "5722594" \| "6086087" \| "6135222" \| "6267406" \| "6312005" \| "6394470" \| "6454286" \| "6540239" \| "6698788" \| "6702306" \| "6935652" \| "6938906" \| "7059625" \| "7261308" \| "7338122" \| "7481439" \| "7497449" \| "7559606" \| "7597332" \| "7740313" \| "7770970" \| "7780184" \| "7789413" \| "7832756" \| "7854435" \| "7887129" \| "7891732" \| "7938433" \| "7971897" \| "7992889" \| "8029007" \| "8070179" \| "8128119" \| "8157273" \| "8262107" \| "8276935" \| "D326748" \| "D431798").PN. OR ("8882134").URPN. | USPAT; USOCR | | | |
| S449 | 28 | ("1707186" \| "4222132" \| "4288089" \| "4354689" \| "4805938" \| "4969656" \| "5064209" \| "5076599" \| "5522121" \| "5653460" \| "5918892" \| "6086087" \| "6527294" \| "6752405").PN. OR ("6938906").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:13 |
| S450 | 56 | ("20030080536" \| "20040075229" \| "20040124611" \| "20040173997" \| "20050127640" \| "20050242549" \| "20090295128" \| "20100038886" \| "20100230933" \| "4697823" \| "4846494" \| "4921261" \| "4946180" \| "5121940" \| "5338096" \| "5454575" \| "5624152" \| "5669623" \| "5687984" \| "5752738" \| "6189914" \| "6193263" \| "6209892" \| "6267406" \| "6409205" \| "6478327" \| "6702316" \| "6938906" \| "6964429" \| "6981709" \| "7017937" \| "7040694" \| "7284797" \| "7445230" \| "7513512" \| "7614640" \| "7770911" \| "8087680" \| "8100429" \| "8186705" \| "8186706" \| "8205894" \| "8282119" \| "8328208" \| "8388016" \| "8398098" \| "8414012" \| "D344474" \| "D345128" \| "D352923" \| "D430076" \| "D452192" \| "D455679" \| "D510549" \| "D593459").PN. OR ("8641077").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:14 |
| S451 | 32 | ("6896286" \| "D369992" \| "D519422" \| "D558099" \| "D566013" \| "D578045" \| "D579827").PN. OR ("D593459").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2019/04/28 23:15 |
| S452 | 66 | ("20020093177" \| "20020109320" \| "20030075903" \| "20030080536" \| | US-PGPUB; | OR | ON | 2019/04/28 23:18 |

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| | | "20030111825" \| "20040032103" \| "20040094922" \| "20040124610" \| "20040124611" \| "20040245747" \| "20050093259" \| "20050127640" \| "20050242535" \| "20050242549" \| "20060119079" \| "20070001429" \| "20070108710" \| "20070194545" \| "20080157491" \| "20090127827" \| "5333893" \| "5676386" \| "5772279" \| "5794951" \| "5833261" \| "5947555" \| "6086087" \| "6209892" \| "6286844" \| "6331032" \| "6398233" \| "6409205" \| "6513827" \| "6530591" \| "6626452" \| "6641164" \| "6702316" \| "6793280" \| "6802514" \| "6863286" \| "6893031" \| "6923467" \| "6983986" \| "6986518" \| "7017921" \| "7032922" \| "7070197" \| "7370913" \| "7377537" \| "7419181" \| "7445229" \| "7475900" \| "7513512" \| "7600775" \| "7614641" \| "7938435" \| "D430076").PN. OR ("8328208").URPN. | US-PGPUB; USPAT; USOCR | | | |
| S453 | 1 | ("D593459").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/04/28 23:25 |
| S454 | 3861 | (B62B7/008,00,006,14,142,145).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/08/23 00:51 |
| S455 | 2688 | (B62B9/12,28,102).CPC. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/08/23 00:51 |
| S456 | 5586 | S454 or S455 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/08/23 00:51 |
| S457 | 969007 | @pd>="20190415" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/08/23 00:57 |
| S458 | 58 | S456 and S457 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/08/23 00:59 |
| S459 | 27 | ("20040189076" \| "20050029855" \| "20110175306" \| "20170247044" \| "20170361861" \| "4577355" \| "5240265" \| "5246272" \| "5669625" \| "5681084" \| "5749627" \| "5806877" \| "6322097" \| "6530591" \| "6676140" \| "6830254" \| "6951342" \| "8070180" \| "8172322" \| | US-PGPUB; USPAT; USOCR | OR | ON | 2019/08/23 01:02 |

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|---|---|---|---|---|---|---|
| | | "8596670" \| "8616638" \| "8690250" \| "8899615" \| "8991929" \| "9227650" \| "9868456" \| "D811949").PN. | | | | |
| S460 | 167 | (US-20100052277-$ or US-20070114738-$ or US-20070001429-$ or US-20060290107-$ or US-20030075903-$ or US-20080303232-$ or US-20070085303-$ or US-20060131841-$ or US-20060001226-$ or US-20080224451-$ or US-20010033069-$ or US-20030025304-$ or US-20070187914-$ or US-20070069505-$ or US-20080231022-$ or US-20100301585-$ or US-20100013281-$ or US-20150360709-$ or US-20070069504-$ or US-20100072732-$ or US-20090302578-$ or US-20130113188-$ or US-20130049331-$ or US-20160001805-$ or US-20040164593-$ or US-20070075525-$).did. or (US-5338096-$ or US-6045145-$ or US-3223431-$ or US-6378892-$ or US-5653460-$ or US-6209892-$ or US-5201535-$ or US-4620711-$ or US-6676140-$ or US-6017051-$ or US-1707186-$ or US-7475900-$ or US-7938435-$ or US-D508443-$ or US-7497461-$ or US-4570956-$ or US-6923467-$ or US-6752405-$ or US-8157273-$ or US-7896384-$ or US-7677585-$ or US-8128103-$ or US-7597332-$ or US-7481439-$ or US-6851693-$ or US-5848797-$).did. or (US-3000645-$ or US-8070180-$ or US-7832755-$ or US-7261308-$ or US-5704627-$ or US-5794951-$ or US-5647601-$ or US-2453631-$ or US-6443467-$ or US-8205906-$ or US-8262103-$ or US-8336904-$ or US-8371606-$ or US-8251382-$ or US-7377537-$ or US-7320471-$ or US-7032922-$ or US-7367581-$ or US-8029007-$ or US-7699325-$ or US-6827356-$ or US-8398098-$ or US-7766366-$ or US-6286844-$ or US-6513827-$ or US-8764048-$ or US-8061732-$).did. or (US-8733784-$ or US-8696016-$ or US-8231136-$ or US-8458880-$ or US-7249779-$ or US-7311323-$ or US-8444171-$ or US-8033554-$ or US-7681894-$ or US-8955869-$ or US-8905427-$ or US-8882134-$ or US-8029014-$ or US-7789402-$ or US-7658399-$ or US-5167425-$ or US-8936261-$ or US-9010773-$ or US-9119483-$ or US-9200746-$ or US-9199659-$ or US-9108659-$ or US-9073563-$ or US-9242665-$ or US-7401803-$ or US-9227650-$ or US-9260128-$).did. or (US-9260127-$ or US-8857830-$ or US-2769482-$ or US-4542915-$ or US-6715783-$ or US-9108654-$ or US-9630642-$ or US-9517787-$ or US-9327752-$ or US-6561526-$ or US-8967171-$ or US-9517789-$ or US-9561817-$ or US-5522121-$ or US-9545941-$ or US-9056622-$ or US-9403550-$ or US-8899615-$ or US-7364183-$ or US-9637155-$ or US-9421992-$ or US-9545940-$ or US-9346378-$ or US-8678498-$ or US-4915446-$ or US-4634177-$ or US-4306749-$).did. or (US-8851505-$ or US-8651502-$ or US-6893040-$ or US-6446990-$ or US-5865447-$ or US-5772279-$ or US-5567008-$ or US-8657326-$ or US-8491000-$ or US-6155740-$ or US-5947555-$ or US- | US-PGPUB; USPAT; USOCR | OR | ON | 2019/08/23 01:02 |

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|---|---|---|---|---|---|---|
| | | 7267359-$ or US-9776652-$ or US-9771095-$ or US-9725106-$ or US-9701333-$ or US-8585075-$ or US-8596670-$ or US-9956979-$ or US-9944305-$ or US-9924806-$ or US-9884640-$ or US-9849903-$ or US-9840168-$ or US-10207731-$ or US-10023218-$ or US-6938906-$).did. or (US-D593459-$ or US-D621306-$ or US-8328208-$ or US-7513512-$).did. or (US-3000645-$ or US-2453631-$ or US-1707186-$).did. | | | | |
| S461 | 22 | S459 not S460 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO | OR | ON | 2019/08/23 01:02 |
| S462 | 1 | ("6676140").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2019/08/23 01:04 |

**EAST Search History (Interference)**

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|---|---|---|---|---|---|---|
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |
| | | | | | | |

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|---|---|---|---|---|---|---|
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |

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|---|---|---|---|---|---|---|
| | | receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | | | | |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |


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| | | seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | | | | |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing, to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:51 |
| | | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:51 |

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| | | housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing, to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | | | | |
| S163 | 0 | (A seat attachment for a stroller, comprising a separate left attachment portion, wherein the left attachment portion comprises a connector portion capable of removably connecting to a stroller frame adjacent a left front wheel of the stroller and a left seat support element removably connecting a seat in either a forward or backward position and a separate right attachment portion, wherein the right attachment portion comprises a connector portion capable of removably connecting to the stroller frame adjacent a right front wheel of the stroller and a right seat support element removably connecting the seat in either a forward or backward position between the left and right seat support elements).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/03 17:17 |
| S164 | 0 | (seat attachment stroller separate left right attachment portion connector portion removably connecting frame adjacent front wheel seat support element removably connecting seat forward backward position).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/04 09:35 |
| S165 | 0 | (seat attach$4 stroller separate left right portion connect$4 remov$4 frame adjacent front wheel support$4 element forward backward position).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/04 09:46 |
| S166 | 1 | (seat attach$4 stroller separate left right connect$4 remov$4 frame wheel support$4).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/04 09:46 |
| S167 | 19 | (seat attach$4 stroller left right connect$4 remov$4 frame wheel).clm. | US-PGPUB; USPAT | AND | ON | 2014/02/04 09:47 |

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| S213 | 0 | (A seat attachment for a stroller, comprising a separate left attachment portion, wherein the left attachment portion comprises a connector portion capable of removably connecting to a stroller frame adjacent a left front wheel of the stroller and a left seat support element removably connecting a seat in either a forward or backward position and a separate right attachment portion, wherein the right attachment portion comprises a connector portion capable of removably connecting to the stroller frame adjacent a right front wheel of the stroller and a right seat support element removably connecting the seat in either a forward or backward position between the left and right seat support elements).clm. | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:26 |
| S214 | 1 | (seat attach$4 stroller separate left right connect$4 remov$4 frame wheel support$4).clm. | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:26 |
| S215 | 19 | (seat attach$4 stroller left right connect$4 remov$4 frame wheel).clm. | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:26 |
| S216 | 19 | (seat$3 attach$4 stroller left right connect$4 remov$4 fram$3 wheel).clm. | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:29 |
| S217 | 68 | (seat$3 attach$4 stroller connect$4 remov$4 fram$3 wheel).clm. | US-PGPUB; USPAT | AND | ON | 2014/09/24 14:29 |
| S218 | 5 | ("20020036391" \| "20070069505" \| "20070187914" \| "4753453" \| "4779883").PN. OR ("8033554").URPN. | US-PGPUB; USPAT | OR | ON | 2014/09/24 14:32 |
| S248 | 4 | "Term Removed" or "Term Removed" | US-PGPUB; USPAT | OR | ON | 2015/04/20 14:14 |
| S411 | 0 | (A stroller, comprising a stroller frame a plurality of wheels coupled to the stroller frame a first seat coupled to the stroller frame a first seat attachment housing disposed along a first portion of the stroller frame and comprising a first adapter receiving cavity extending through the first seat attachment housing and a first door rotatably coupled to the first seat attachment housing along a top end of the first adapter receiving cavity, wherein the first door rotates from a closed configuration, preventing access to the first adapter receiving cavity from a top side of the first seat attachment housing to an open configuration allowing access to the first adapter receiving cavity from the top side of the first seat attachment housing a second seat attachment housing disposed along a second portion of the stroller frame and comprising a second adapter receiving cavity extending through the second seat attachment housing and a second door rotatably coupled to the second seat attachment housing along a second top end of the second adapter receiving cavity, wherein the second door rotates from a second closed configuration, preventing access to the second adapter receiving cavity from a top side of the second | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:52 |

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| | | seat attachment housing, to a second open configuration allowing access to the second adapter receiving cavity from the top side of the second seat attachment housing a first removable seat attachment adapter removably coupled to the first seat attachment housing and a second removable seat attachment adapter removably coupled to the second seat attachment housing).CLM. | | | | |
| S412 | 0 | (stroller frame wheel seat attachment housing first adapter receiving cavity extending through housing first door rotatably coupled to housing closed configuration preventing access to cavity from top side open configuration allowing access to cavity first removable seat attachment adapter removably coupled to housing and second removable seat attachment adapter removably coupled to housing).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:55 |
| S413 | 1 | (stroller frame wheel seat attach$4 hous$4 adapter receiv$4 cavity extend$4 door rotat$4 closed configuration prevent$4 access$4 open configuration allow$4 access).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 16:56 |
| S414 | 1 | (stroller frame wheel seat attach$4 hous$4 adapter receiv$4 cavity door rotat$4 closed configuration prevent$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:21 |
| S415 | 1 | (stroller wheel seat attach$4 hous$4 cavity door closed configuration prevent$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:22 |
| S416 | 1 | (stroller wheel seat attach$4 hous$4 cavity door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:22 |
| S417 | 1 | (stroller seat attach$4 hous$4 cavity door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:23 |
| S418 | 1 | (stroller seat$3 attach$4 cavity door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:24 |
| S419 | 1 | (stroller seat$3 cavity door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:24 |
| S420 | 3 | (stroller seat$3 door clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:24 |
| S421 | 2 | (stroller seat$3 cavit$3 clos$4 access$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:26 |
| S422 | 21 | (stroller seat$3 cavit$3 clos$4).CLM. | US-PGPUB; USPAT | AND | ON | 2017/11/13 17:26 |
| S442 | 5 | "Term Removed" or "Term Removed" | US-PGPUB; USPAT | OR | ON | 2019/04/15 11:03 |
| S463 | 2 | "Term Removed" or "Term Removed" | US-PGPUB; USPAT | OR | ON | 2019/08/23 01:02 |

**2/28/2020 11:26:59 PM**
**C:\Users\jdolak\Documents\EAST\Workspaces\15912901_updatedparent.wsp**

**PATENTS**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | |
|---|---|---|
| In re Application of: | ) | |
| | ) | |
| **John Hee Lee, et al.** | ) | Confirmation No.: **8011** |
| | ) | |
| Application No.: **15/912,901** | ) | Art Unit: **3618** |
| | ) | |
| Filed: **March 6, 2018** | ) | Examiner: **James M. Dolak** |
| | ) | |
| For: **Removable Seat Attachment for a Stroller** | ) | |
| | ) | |
| | ) | |

**AMENDMENT AFTER ALLOWANCE UNDER 37 C.F.R. § 1.312**

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner Dolak:

This Amendment is being submitted pursuant to 37 C.FR. § 1.312, and responsive to the Notice of Allowance dated March 16, 2020, and includes:

This Amendment and Response includes:

**Amendments to the Specification**, which begin on page 2 of this paper.

**Amendments to the Abstract**, which begin on page 6 of this paper.

**Remarks**, which begin on page 7 of this paper.

## AMENDMENTS TO THE SPECIFICATION

Please amend the specification as shown below. These amendments to the specification are supported by the specification and drawings as-filed, do not introduce new matter, and do not affect the allowability of the claims as provided for in the Notice of Allowance. Accordingly, entry of the amendments to the specification is respectfully requested

**Please amend page 7, paragraph 3 of the specification as follows:**

The seat attachment 20 can also include a folding mechanism that includes a sliding connector 25 connected to a first end of a strut 28. A second end of the strut 28 can be pivotally connected to wheel support frame 26. In such an embodiment, the sliding connector 25 may be moved between a first position and a second position on the attachment frame member 24. As the sliding connector 25 is moved, the strut 28 pushes the wheel support frame 26 from an in-use position to a storage position. The storage position is more compact as shown in Figure 2. In addition, certain example embodiments of the seat attachment 20 can also include a locking mechanism [[27]]29 that is capable of securing the seat attachment 20 to a stroller, such as stroller 10 shown in Figure 1. The locking mechanism 29 can be engaged by moving the sliding connector 25 to the in-use position, in which the wheel support frame [[28]]26 and wheel 23 are extended. In certain example embodiments, the wheel 23 of the seat attachment 20 is pivotally connected to the connector portion 21 and when the wheel 23 is in the in-use position the releasable connection is locked and when the wheel 23 is moved to the storage position, the releasable connection is unlocked allowing the seat attachment 20 to be removed from stroller 10. The seat attachment 20 may be stored and the stroller 10 may be conveniently used as a single stroller. As designed, the seat attachment 20 may be reconnected to the stroller 10 for use as a double stroller when needed. The seat attachment portion may be secured into position on the stroller frame and a locking mechanism may be used with an embodiment with or without the wheel. Either the seat attachment or the stroller frame can include a locking mechanism for securing the stroller and seat attachment together. The locking mechanism may be any mechanism capable of securing the components together during use and

may be a friction locking device, threaded connection, peg in a hole, or an interference locking device such as a pin in a hole, for example. As shown in the example embodiment of Figure 2, the locking mechanism 29 pivots with wheel support frame 26 as the seat attachment 20 is moved from an unfolded position to a folded position. The locking mechanism 29 may slide into a hole or notch in the attachment frame member 24 of the stroller 10 shown in Figure 1. As such, the seat attachment 20 may be attached to the stroller 10 by positioning the attachment portion 21 of the seat attachment 20 in the slot 18 of the attachment portion 17 of the stroller 10. The sliding connector 25 may be moved to the in-use position, the wheel support frame is moved, and the locking mechanism 29 is positioned into the locking slot 19 of the stroller 10.

**Please amend page 9, paragraph 1 of the specification as follows:**

Figure 3 presents a side elevation view of a combination of the single stroller 10 of Figure 1 attached to the seat attachment 20 of Figure 2 according to one example embodiment of the disclosure. Referring [[not ]]to Figure 3, the seat attachment 20 removably coupled to the single stroller 10 to form 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 22 of the seat attachment 20 may be capable of supporting the front stroller seat 13 in either a forward-facing or backward-facing position.

**Please amend page 9, paragraph 2 of the specification as follows:**

The example embodiment of the stroller 10 in Figure 3 is shown only as an example of one type of stroller, the frame of the stroller 10 may be any of many possible configurations. Example embodiments of the seat attachment accessory may be configured to be used on any such configuration of a stroller. For example, in another example embodiment, the baby stroller may not include two front wheels, may not include a folding mechanism or may [[only ]]include only one folding mechanism. In addition, the baby stroller may include additional features not included in baby stroller

10. For example, the stroller may optionally include fixed front wheels, an entirely different frame configuration, or a storage basket underneath the seat of the stroller.

**Please amend page 14, paragraph 1 of the specification as follows:**

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]]<u>first</u> 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.

**Please amend page 15, paragraph 2 of the specification as follows:**

Figures 8C-8H 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 Figure 8D, the second stroller seat [[86]]85 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 Figure 8E, 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 Figure 8F, the child carrier 91, of Figure 8E, can be replaced with a pram 92 that is removably coupled to the stroller 81 in the first seat position. In still another example configuration, as shown in Figure 8G, two child carriers 93 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 93 may be replaced with a pram or bassinet 92, as shown in Figure 8H.

**Please amend page 22, paragraph 1 of the specification as follows:**

Each seat attachment housing 1405, 1410 can include a rotating door 1415 rotatably coupled to the seat attachment housing 1405, 1410. For example, the rotating door 1415 can have a fixed end that is rotatably coupled to the top side of the seat attachment housing 1405, 1410 or an interior wall of the opening 1130 or adapter receiving cavity 1205 by way of one or more hinges 1420. Alternatively, other devices may be used to allow the door 1415 to rotate from a closed configuration 1415a to an open configuration 1415b, as shown in Figure 14C. In certain example embodiments, the door 1415 and/or the rotating mechanism or hinge 1420 that the door 1415 is coupled to can be spring-biased into the closed configuration 1415a through the use of a spring or other biasing means. Spring-biasing the door 1415 into a closed configuration 1415a can help to prevent fluids and other material contaminants from entering the adapter receiving cavity 1205 when the removable seat attachment adapter 84 is not coupled into the adapter receiving cavity 1205.

**Please replace the Abstract with the following Replacement Abstract:**

ABSTRACT

A stroller is provided with the ability to removably couple and decouple a seat from the stroller as needed. The stroller can include a stroller frame. The stroller can also include one or more front wheels attached to the stroller frame and one or more rear wheels attached to the stroller frame. The stroller can also include a first seat coupled to the stroller frame. The stroller can include first and second seat attachment housings. Each of the seat attachment housings can include a cavity for receiving a corresponding one of the first and second seat attachment adapters. Each of the seat attachment housings can also include a door or cover to prevent access to the respective cavity when not in use. The seat attachment adapters can be coupled to the respective seat attachment housings and a second seat can be coupled to the seat attachment adapters.

## REMARKS

Applicant thanks the Examiner for the Notice of Allowance dated March 16, 2020. This Amendment is being submitted under 37 C.F.R. § 1.312 in order to correct minor typographical errors or omissions present in the specification. Applicant submits that no new subject matter has been added.

Accordingly, it is respectfully submitted that the amendments to the claims as presented herein do not alter or affect the patentability of the application and do not alter or affect the scope of the application in a manner that would require any additional search or examination. In addition, the amendments do not add any new matter. It is further respectfully submitted that the amendments were identified during routine Notice of Allowance processing, and would have otherwise been presented earlier if known. Accordingly, entry of the foregoing amendments is respectfully requested before issuance of a patent on the present application. If, however, a decision is made not to enter the foregoing amendments in whole, Attorney for the Assignee respectfully requests entry in part of those amendments for which the Examiner decides entry is proper per MPEP § 714.16(e).

Respectfully submitted,

**/Christopher J. Chan/**

Christopher J. Chan
Reg. No. 44,070

Date: **June 16, 2020**
EVERSHEDS SUTHERLAND (US) LLP
999 Peachtree Street, NE
Atlanta, GA 30309-3996
(404) 853-8049 (phone)
(404) 853-8806 (facsimile)
Attorney Docket No. **34757-2184**

# Electronic Patent Application Fee Transmittal

| | |
|---|---|
| **Application Number:** | 15912901 |
| **Filing Date:** | 06-Mar-2018 |
| **Title of Invention:** | REMOVABLE SEAT ATTACHMENT FOR A STROLLER |
| **First Named Inventor/Applicant Name:** | Jon Hee Lee |
| **Filer:** | Christopher Chan/LaYonda Prue |
| **Attorney Docket Number:** | 34757-2184 |

Filed as Large Entity

**Filing Fees for Utility under 35 USC 111(a)**

| Description | Fee Code | Quantity | Amount | Sub-Total in USD($) |
|---|---|---|---|---|
| **Basic Filing:** | | | | |
| **Pages:** | | | | |
| **Claims:** | | | | |
| **Miscellaneous-Filing:** | | | | |
| **Petition:** | | | | |
| **Patent-Appeals-and-Interference:** | | | | |
| **Post-Allowance-and-Post-Issuance:** | | | | |
| UTILITY APPL ISSUE FEE | 1501 | 1 | 1000 | 1000 |

| Description | Fee Code | Quantity | Amount | Sub-Total in USD($) |
|---|---|---|---|---|
| **Extension-of-Time:** | | | | |
| **Miscellaneous:** | | | | |
| | | | **Total in USD ($)** | **1000** |

# Electronic Acknowledgement Receipt

| | |
|---|---|
| **EFS ID:** | 39737391 |
| **Application Number:** | 15912901 |
| **International Application Number:** | |
| **Confirmation Number:** | 8011 |
| **Title of Invention:** | REMOVABLE SEAT ATTACHMENT FOR A STROLLER |
| **First Named Inventor/Applicant Name:** | Jon Hee Lee |
| **Customer Number:** | 134811 |
| **Filer:** | Christopher Chan/LaYonda Prue |
| **Filer Authorized By:** | Christopher Chan |
| **Attorney Docket Number:** | 34757-2184 |
| **Receipt Date:** | 16-JUN-2020 |
| **Filing Date:** | 06-MAR-2018 |
| **Time Stamp:** | 19:43:50 |
| **Application Type:** | Utility under 35 USC 111(a) |

## Payment information:

| | |
|---|---|
| Submitted with Payment | yes |
| Payment Type | DA |
| Payment was successfully received in RAM | $1000 |
| RAM confirmation Number | E20206FJ44192183 |
| Deposit Account | |
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## File Listing:

| Document Number | Document Description | File Name | File Size(Bytes)/ Message Digest | Multi Part /.zip | Pages (if appl.) |
|---|---|---|---|---|---|
| 1 | Issue Fee Payment (PTO-85B) | 34757-2184_Issue_Fee_Transmittal.pdf | 82405<br>f0c4d11511751fc020bac40404abe7e1f8792a73 | no | 1 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 2 | Post Allowance Communication - Incoming | 34757-2184_Comments.pdf | 21555<br>8b75a5d833b4cb762443f261edffab2ecb6fe6e0 | no | 2 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 3 | | 34757-2184_312_Amendment.pdf | 41529<br>2e215bd29b30a52ceecc56331f53700227c97c9f | yes | 7 |

**Multipart Description/PDF files in .zip description**

| Document Description | Start | End |
|---|---|---|
| Amendment after Notice of Allowance (Rule 312) | 1 | 1 |
| Specification | 2 | 5 |
| Abstract | 6 | 6 |
| Applicant Arguments/Remarks Made in an Amendment | 7 | 7 |

| | | | | | |
|---|---|---|---|---|---|
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| 4 | Fee Worksheet (SB06) | fee-info.pdf | 30203<br>e7666e3cf4c18bb03bbc38c3afc8a63192737e03 | no | 2 |
| **Warnings:** | | | | | |
| **Information:** | | | | | |
| | | **Total Files Size (in bytes):** | 175692 | | |

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**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

134811 7590 03/16/2020
Eversheds Sutherland (US) LLP/NWL
999 Peachtree Street
Suite 2300
Atlanta, GA 30309

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

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| (Typed or printed name) |
| (Signature) |
| (Date) |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 15/912,901 | 03/06/2018 | Jon Hee Lee | 34757-2184 | 8011 |

TITLE OF INVENTION: REMOVABLE SEAT ATTACHMENT FOR A STROLLER

| APPLN. TYPE | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|---|---|---|---|---|---|---|
| nonprovisional | UNDISCOUNTED | $1000 | $0.00 | $0.00 | $1000 | 06/16/2020 |

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|---|---|---|
| DOLAK, JAMES M | 3618 | 280-650000 |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Eversheds Sutherland (US) LLP
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: Baby Jogger, LLC

(B) RESIDENCE: (CITY and STATE OR COUNTRY): Richmond, VA

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ☒ Corporation or other private group entity ❑ Government

4a. Fees submitted: ☒ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

☒ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 195029

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Christopher J. Chan/ Date June 16, 2020

Typed or printed name Christopher J. Chan Registration No. 44,070

**PATENTS**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | |
|---|---|---|
| In re Application of: | ) | |
| | ) | |
| **John Hee Lee, et al.** | ) | Confirmation No.: **8011** |
| | ) | |
| Application No.: **15/912,901** | ) | Art Unit: **3618** |
| | ) | |
| Filed: **March 6, 2018** | ) | Examiner: **James M. Dolak** |
| | ) | |
| For: **Removable Seat Attachment for a Stroller** | ) | |
| | ) | |
| | ) | |

## COMMENTS ON EXAMINER'S REASONS FOR ALLOWANCE

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner Dolak:

Responsive to the Notice of Allowance having a Notification Date of March 16, 2020, and the Examiner's statement of reasons for allowance (the "Examiner's Statement"), Applicant submits the following clarifying remarks. The Examiner's Statement emphasizes that the alleged prior art teaches certain elements of the claims. Applicant does not admit that any of these assertions regarding the teachings in the cited art are correct or that such teachings in the prior art read on any of the claim elements.

Furthermore, the Examiner emphasizes that certain claim elements are not disclosed in the alleged prior art. However, these statements should not be construed as identifying the only features that are not taught by the alleged prior art or that the features are the only novel and non-obvious features of Applicant's inventions.

I hereby certify that this correspondence is being filed via EFS-Web to Mail Stop Issue Fee, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Attn: Examiner Dolak, GAU 3618, on **June 16, 2020**.

/Christopher J. Chan/
Christopher J. Chan
Reg. No. 44,070

Applicant respectfully asserts that the allowed claims are novel and non-obvious over the prior art for reasons other than those emphasized in the Examiner's Statement.

Further, while Applicant believes that the claims are allowable, Applicant does not acquiesce that patentability resides in each feature, exactly as expressed in the claims, nor that each feature is required for patentability.

Respectfully submitted,

**/Christopher J. Chan/**

Christopher J. Chan
Reg. No. 44,070

Date: **June 16, 2020**
EVERSHEDS SUTHERLAND (US) LLP
999 Peachtree Street, NE
Atlanta, GA 30309-3996
(404) 853-8049 (phone)
(404) 853-8806 (facsimile)
Attorney Docket No. **34757-2184**

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 15/912,901 | 03/06/2018 | Jon Hee Lee | 34757-2184 | 8011 |

134811 7590 06/25/2020

Eversheds Sutherland (US) LLP/NWL
999 Peachtree Street
Suite 2300
Atlanta, GA 30309

| EXAMINER | |
|---|---|
| DOLAK, JAMES M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3618 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 06/25/2020 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@eversheds-sutherland.com

| Response to Rule 312 Communication | Application No. | Applicant(s) | |
|---|---|---|---|
| | 15/912,901 | Lee et al. | |
| | Examiner | Art Unit | AIA (FITF) Status |
| | JAMES M DOLAK | 3618 | No |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

1. ☑ The amendment filed on 16 June 2020 under 37 CFR 1.312 has been considered, and has been:
   a) ☑ entered.
   b) ☐ entered as directed to matters of form not affecting the scope of the invention.
   c) ☐ disapproved because the amendment was filed after the payment of the issue fee.
      Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.
   d) ☐ disapproved. See explanation below.
   e) ☐ entered in part. See explanation below.

/JAMES M DOLAK/
Primary Examiner, Art Unit 3618

OK TO ENTER: /J.M.D/

**PATENTS**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | |
|---|---|---|
| In re Application of: | ) | |
| | ) | |
| **John Hee Lee, et al.** | ) | Confirmation No.: **8011** |
| | ) | |
| Application No.: **15/912,901** | ) | Art Unit: **3618** |
| | ) | |
| Filed: **March 6, 2018** | ) | Examiner: **James M. Dolak** |
| | ) | |
| For: **Removable Seat Attachment for a Stroller** | ) | |
| | ) | |
| | ) | |

**AMENDMENT AFTER ALLOWANCE UNDER 37 C.F.R. § 1.312**

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner Dolak:

This Amendment is being submitted pursuant to 37 C.FR. § 1.312, and responsive to the Notice of Allowance dated March 16, 2020, and includes:

This Amendment and Response includes:

**Amendments to the Specification**, which begin on page 2 of this paper.

**Amendments to the Abstract**, which begin on page 6 of this paper.

**Remarks**, which begin on page 7 of this paper.

OK TO ENTER: /J.M.D/

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | ISSUE DATE | PATENT NO. | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 15/912,901 | 08/04/2020 | 10730543 | 34757-2184 | 8011 |

134811 7590 07/15/2020

Eversheds Sutherland (US) LLP/NWL
999 Peachtree Street
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# ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

**Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 95 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Jon Hee Lee, Highwood, IL;
Baby Jogger, LLC, Richmond, VA
Megan Roe, Kalamazoo, MI;
Stacy Noel Simpson, Portage, MI;
Mark Zehfuss, Glen Allen, VA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.