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(54) Abstract Title: **Auxiliary pushchair seat**

(57) An auxiliary seat 1 attachable to a pushchair or stroller (2 figure 6) to enable it to accommodate two children seated side-by-side and facing in the same direction. The seat comprises a frame having a backrest 22, a base 21 and a wheel 30 in contact with the ground in an operative position to support a child seated on the base with their back against the backrest. The frame is configured so that the backrest and the base fold substantially flat when the auxiliary seat is not in use (figure 2). The backrest and base may form part of a scissor linkage, and the seat may be attached to the pushchair by means of linkages 18, 19. The linkages may be provided with a replacement or supplementary pushchair frame bar 4. The seat may have a sun/rain cover, a safety harness, and a toy attachment in the form of a steering wheel or hobby horse.

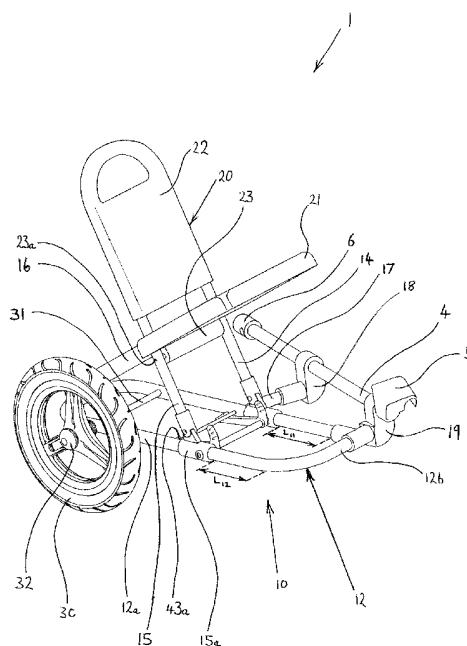


FIGURE 1

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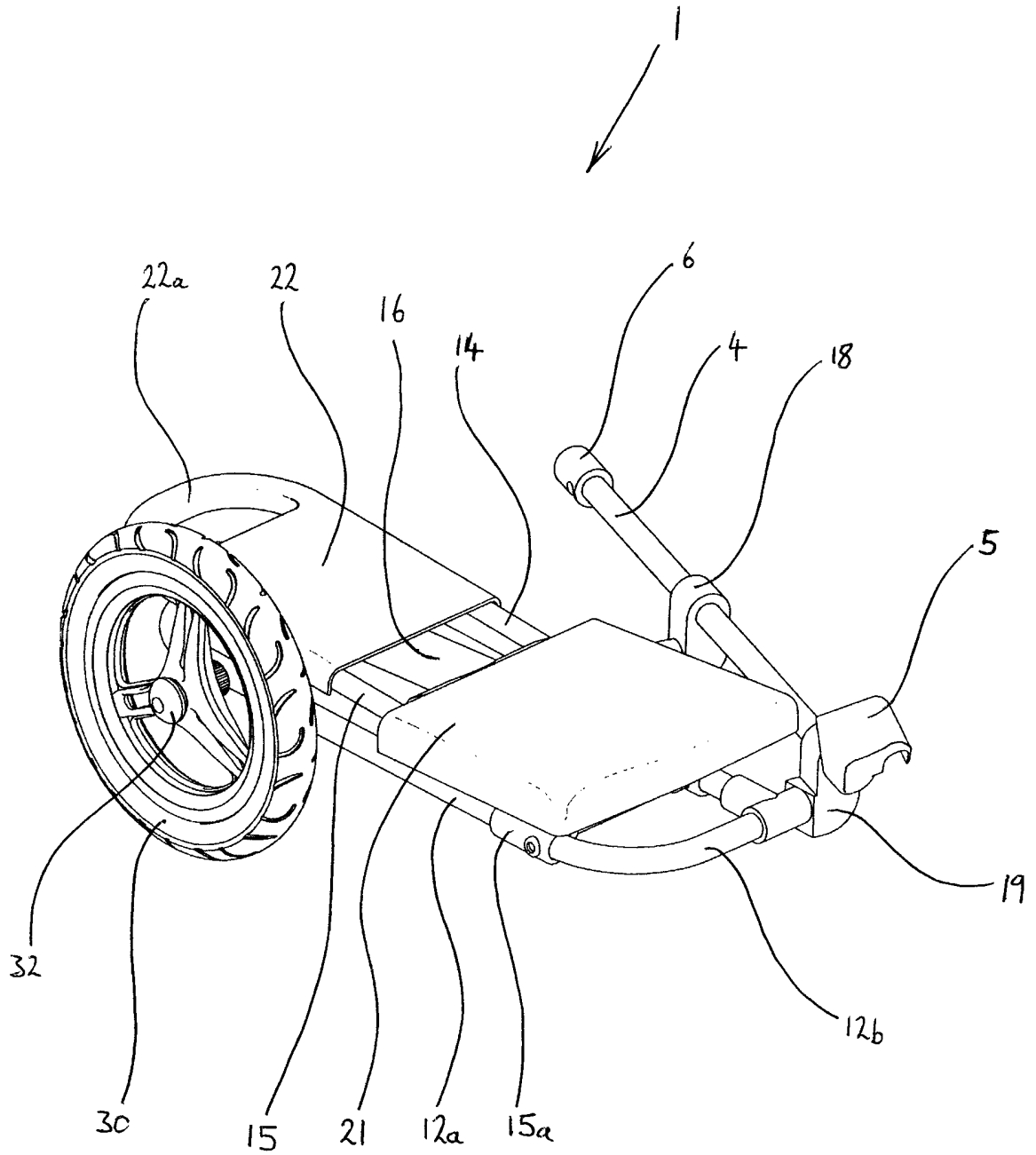


FIGURE 2.

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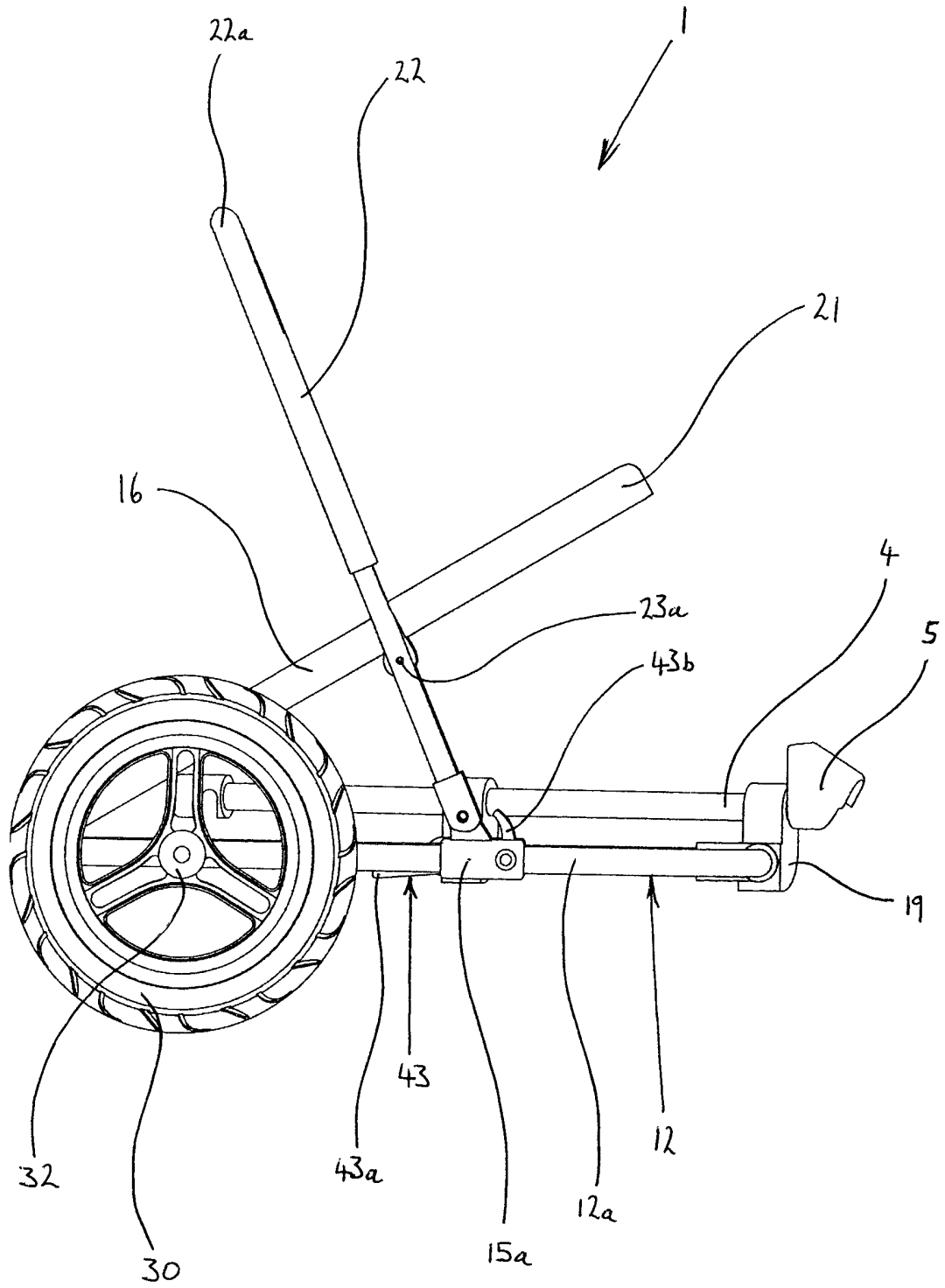


FIGURE 3

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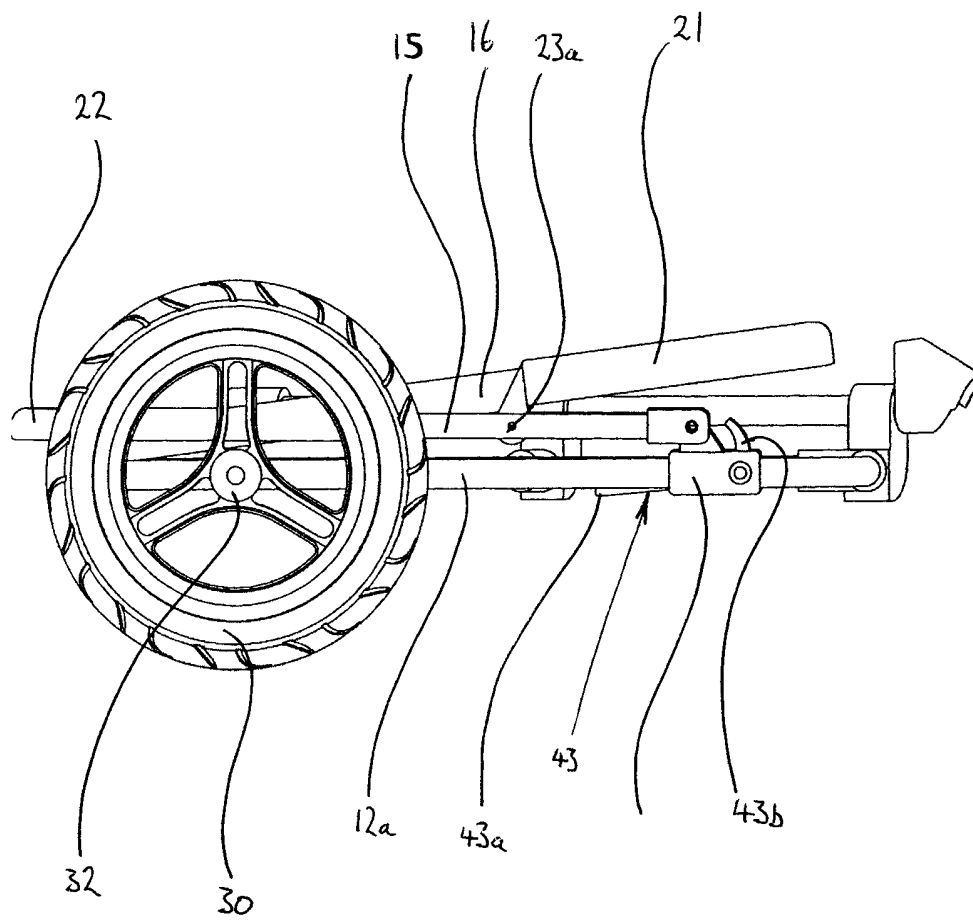


FIGURE 4

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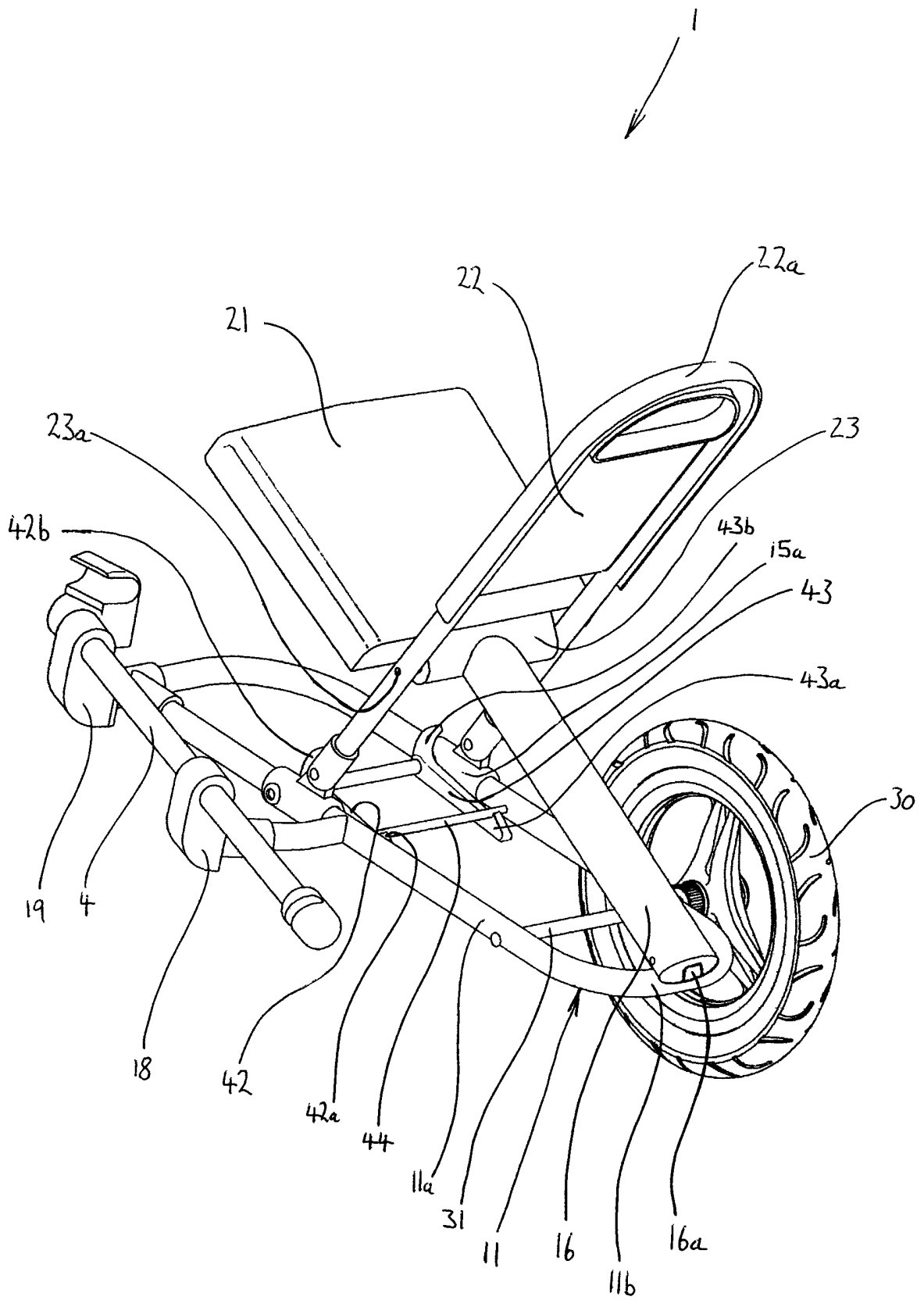


FIGURE 5

A technical line drawing of a three-wheeled vehicle chassis, likely a motorized bicycle or a small cart. The drawing shows the frame, handlebars, seat, and wheels. Key components are labeled with numbers: 1 points to the handlebars, 2 points to the seat, 3 points to the frame, 4 points to the front wheel assembly, 5 points to the front wheel, 6 points to the front suspension, 7 points to the rear wheel assembly, 8 points to the rear wheel, 9 points to the rear suspension, 10 points to the front fork, 11 points to the front axle, 12 points to the front wheel hub, 13 points to the front wheel spokes, 14 points to the front wheel rim, 15 points to the front wheel tire, 16 points to the front wheel axle nut, 17 points to the front wheel axle washer, 18 points to the front wheel axle seal, 19 points to the front wheel axle cap, 20 points to the front wheel axle lock, 21 points to the front wheel axle key, 22 points to the front wheel axle pin, 23 points to the front wheel axle bush, 24 points to the front wheel axle sleeve, 25 points to the front wheel axle bracket, 26 points to the front wheel axle support, 27 points to the front wheel axle guide, 28 points to the front wheel axle stop, 29 points to the front wheel axle limit, 30 points to the front wheel axle end, 31 points to the front wheel axle start, 32 points to the front wheel axle middle, 33 points to the front wheel axle base, 34 points to the front wheel axle top, 35 points to the front wheel axle bottom, 36 points to the front wheel axle side, 37 points to the front wheel axle back, 38 points to the front wheel axle front, 39 points to the front wheel axle left, 40 points to the front wheel axle right, 41 points to the front wheel axle center, 42 points to the front wheel axle edge, 43 points to the front wheel axle corner, 44 points to the front wheel axle surface, 45 points to the front wheel axle volume, 46 points to the front wheel axle mass, 47 points to the front wheel axle weight, 48 points to the front wheel axle force, 49 points to the front wheel axle pressure, 50 points to the front wheel axle tension, 51 points to the front wheel axle compression, 52 points to the front wheel axle shear, 53 points to the front wheel axle bending, 54 points to the front wheel axle twisting, 55 points to the front wheel axle vibration, 56 points to the front wheel axle oscillation, 57 points to the front wheel axle rotation, 58 points to the front wheel axle translation, 59 points to the front wheel axle movement, 60 points to the front wheel axle position, 61 points to the front wheel axle orientation, 62 points to the front wheel axle direction, 63 points to the front wheel axle speed, 64 points to the front wheel axle acceleration, 65 points to the front wheel axle deceleration, 66 points to the front wheel axle velocity, 67 points to the front wheel axle momentum, 68 points to the front wheel axle energy, 69 points to the front wheel axle power, 70 points to the front wheel axle work, 71 points to the front wheel axle heat, 72 points to the front wheel axle cold, 73 points to the front wheel axle hot, 74 points to the front wheel axle warm, 75 points to the front wheel axle cool, 76 points to the front wheel axle dry, 77 points to the front wheel axle wet, 78 points to the front wheel axle moist, 79 points to the front wheel axle humid, 80 points to the front wheel axle dry, 81 points to the front wheel axle wet, 82 points to the front wheel axle moist, 83 points to the front wheel axle humid, 84 points to the front wheel axle dry, 85 points to the front wheel axle wet, 86 points to the front wheel axle moist, 87 points to the front wheel axle humid, 88 points to the front wheel axle dry, 89 points to the front wheel axle wet, 90 points to the front wheel axle moist, 91 points to the front wheel axle humid, 92 points to the front wheel axle dry, 93 points to the front wheel axle wet, 94 points to the front wheel axle moist, 95 points to the front wheel axle humid, 96 points to the front wheel axle dry, 97 points to the front wheel axle wet, 98 points to the front wheel axle moist, 99 points to the front wheel axle humid, 100 points to the front wheel axle dry.

FIGURE 6.

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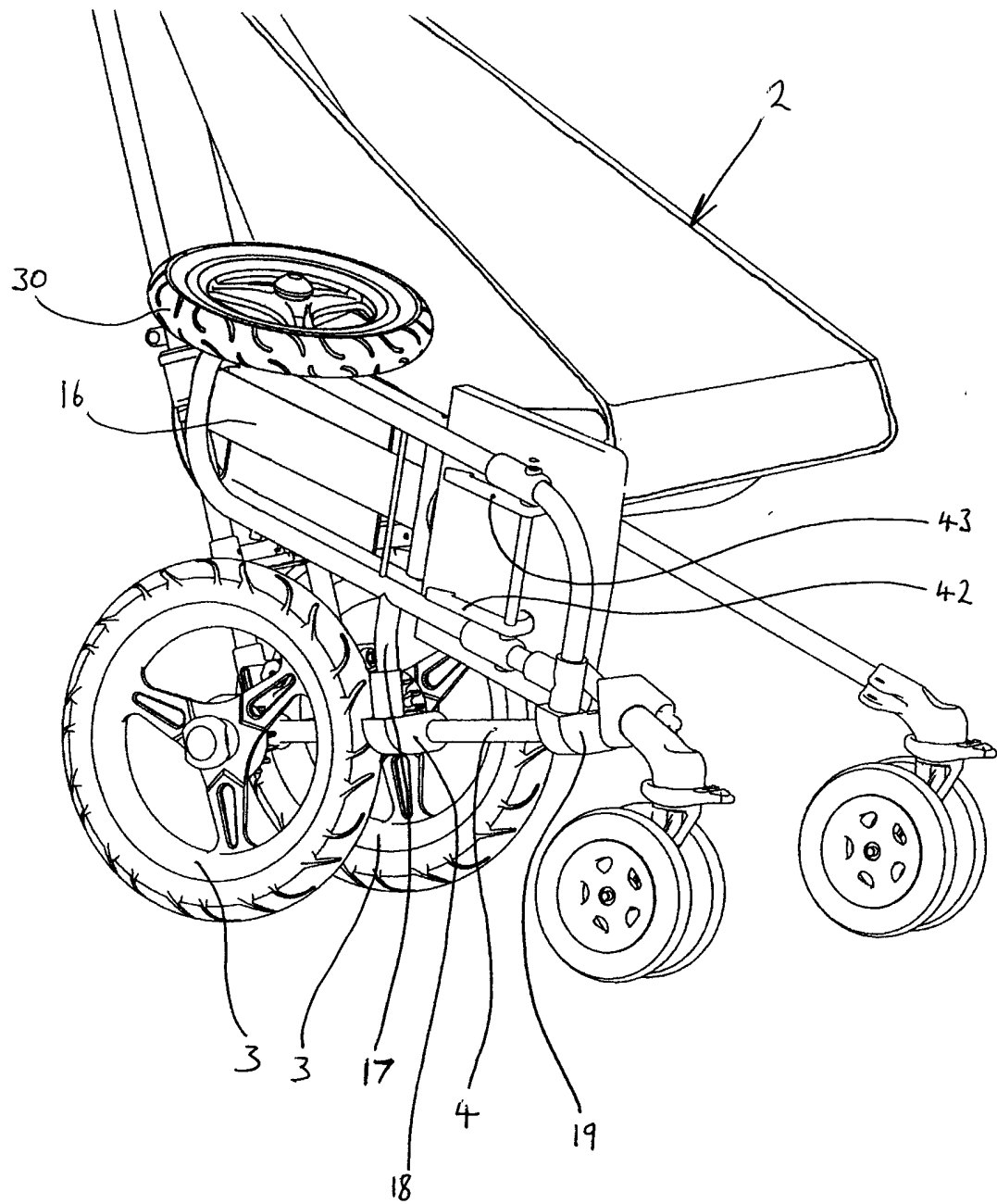


FIGURE 7

Auxiliary Pushchair Seat

Description

The present invention relates to a pushchair, and more specifically, to an add-on
5 seating device for pushchairs.

It is often the case with parents having more than one child that the age gap
between the children is such that the older child is not fully able to walk by the time
the second child is born or is reluctant to do so for an extended period of time.
10 During the first child's initial years, the parents will most probably have bought a
single-seat pushchair to transport the child around in until it learns to walk
properly. Modern pushchairs can be an expensive outlay, and perhaps difficult to
afford, especially for young couples who may be at an early stage of their
professional careers or those on low income. Therefore, when the second child is
15 born, the parents find themselves requiring another pushchair so that both children
can be transported together. Therefore, they must either buy another single-seat
pushchair in addition to the first, which means having to use two pushchairs each
time both children are taken out together or, buy a new double-seat pushchair,
which means the original single-seat pushchair is then redundant. In either case, it
20 involves another significant financial outlay for the parents.

One solution to this problem is to provide an add-on device that can be attached to
the existing single-seat pushchair to adapt it to be able to carry both children
simultaneously. Recently, pushchair add-on products have become commercially
25 available and one such device comprises a wheeled platform that attaches to the rear
of the pushchair, on which the elder child can stand whilst the younger child is
seated.

However, this platform type of device has a number of disadvantages. Firstly, as the
30 device is a platform and not a seat, it requires the elder child to remain standing,
which can quickly tire them out and become uncomfortable for them. This has a
safety implication as well, since the elder child is not provided with a harness to
stop them falling off the device. Secondly, the device is positioned at the rear of the

pushchair between the pushchair and the parent. This means that the parent has to lean forward and stoop over and/or around the standing child in order to push the pushchair, and this can quickly cause backache and stiffness, and is generally uncomfortable over anything but the shortest distances. Thirdly, the wheels of the platform are positioned behind the rear wheels of the pram, which means that it can be difficult to push the pushchair up or down kerbs, as the device hinders the ability of the pushchair to be pivoted about the rear wheel axle. This device can also unbalance the pushchair and cause it to tip over very easily

10 It is therefore an object of the present invention to provide an add-on pushchair seating device that substantially alleviates or overcomes the problems mentioned above.

According to the present invention, therefore, there is provided an auxiliary seat attachable to a pushchair to enable it to accommodate two children seated side-by-side and facing the same direction, the seat comprising a frame having a backrest and a base and a wheel in contact with the ground in an operative position to support a child seated on the base with their back against the backrest, wherein the frame is configured so that the backrest and the base fold substantially flat when the auxiliary seat is not in use.

In a preferred embodiment, the base and the backrest are pivotable relative to one another such that they are collapsible from the erect operative position to the collapsed folded position by means of a scissor-like mechanism. Conveniently, the scissor-like mechanism includes at least one sliding joint to enable the base and backrest to be erected and collapsed.

Preferably, the backrest is attached to one end of a first support strut and the base is attached to one end of a second support strut, and said first and second support struts are pivotable relative to each other and the end of the first support strut remote from the backrest is connected to the at least one sliding joint.

Advantageously, the auxiliary seat comprises a locking mechanism to retain the seat in the erect operative position, and the locking mechanism preferably retains the seat in the erect operative position by locking the at least one sliding joint in place.

- 5 In a preferred embodiment, the locking mechanism comprises a latch extending from the at least one sliding joint, operable to lock onto a fixed shaft on the frame. Preferably, the latch is located at one end of an arm, the arm rotatably mounted to the at least one sliding joint and operable to move from a first locked position in which the latch snags on the fixed shaft, to a second unlocked position in which the
10 latch is clear of the fixed shaft to allow movement of the at least one sliding joint.

The frame is preferably attached to the pushchair by a first clamping means extending from one side of the frame, and the first clamping means is conveniently attached to a first support strut which is hingedly attached to the frame.
15

Furthermore, the frame may further be attached to the pushchair by a second clamping means extending from said one side of the frame, and the second clamping means may also be hingedly attached to the frame.

- 20 In one preferred embodiment, the first and second clamping means are attachable to a supplementary pushchair frame bar which includes further attachment means operable to fix the bar and seat attached thereto, to the conventional pushchair. Alternatively, the first and second clamping means may be attachable to a replacement pushchair frame bar which can be fitted in place of an existing section
25 of frame of a conventional pushchair to fix the seat thereto.

Preferably, the auxiliary seat is releasably attachable to said pushchair, and in a preferred embodiment, it can pivot relative to the pushchair to be folded against the side thereof in a storage position with the wheel off the ground, once the base and
30 backrest of the seat have been folded substantially flat.

Conveniently, the at least one wheel is detachable, and is preferably positioned such that when the auxiliary seat is mounted on the pushchair in an operative position,

the at least one wheel is in alignment with a rear wheel of the pushchair. In a preferred embodiment, the at least one wheel is positioned such that when the auxiliary seat is mounted on the pushchair in an operative position, an axle of the at least one wheel is coaxial with an axle of a rear wheel of the pushchair.

5

Advantageously, the seat includes a safety harness to retain a child in position thereon.

A preferred embodiment includes a rain cover attached to the seat to at least partially surround a child sitting on the seat, and an alternative embodiment includes a sunshade attached to the seat to shade a child sitting on the seat. A toy steering wheel is conveniently positionable in front of a child sitting on the seat, or a toy hobby-horse style attachment may be positionable in front of a child sitting on the seat.

15

A preferred embodiment of the present invention will now be described, with reference to the accompanying drawings, in which:

Figure 1 shows a perspective view of a pushchair add-on device according to a first embodiment of the invention, in an erected operative position;

20

Figure 2 shows the pushchair add-on device of Figure 1 in a collapsed position;

Figure 3 shows a side view of the pushchair add-on device of Figure 1;

Figure 4 shows a side view of the pushchair add-on device of Figure 2;

Figure 5 shows a rear perspective view of the pushchair add-on device of Figures 1 and 3;

25

Figure 6 shows the pushchair add-on device in the erect position attached to a conventional pushchair; and

Figure 7 shows the pushchair add-on device in the collapsed position attached to a conventional pushchair, and folded up in a storage position.

30

Referring now to the drawings, a pushchair add-on device 1, for attachment to any type of conventional pushchair 2 (see Figures 6 and 7), is shown, comprising a chassis frame 10, a seat portion 20 and a wheel 30. The chassis 10 comprises first

and second generally curved L-shaped tubular chassis members 11, 12 arranged so that long sides 11a, 12a of each member 11, 12 are parallel to one another, and short sides 11b, 12b are parallel to one another. Each end of each chassis member 11, 12 is connected to a correspondingly opposite end of the other member so as to
5 form a generally rectangular chassis frame 10.

The seat portion 20 comprises a base 21 and a backrest 22. It can also include a seat harness (not shown) comprising a strap extending from either side of the backrest 22 and one extending from the middle of the base 21 at the front thereof, in which
10 all three straps meet in a "T" - shaped clasp.

The chassis frame 10 includes two collars, 14a, 15a, one slideably received on each of the long sides 11a, 12a of the L-shaped chassis members 11, 12. Each collar 14a, 15a includes a pivot joint integrally formed therewith, and a backrest support
15 stanchion 14, 15 is pivotably attached to each of the collar pivot joints 14a, 15a respectively, and extends therefrom. The backrest 22 is attached at either side to the backrest support stanchions 14, 15 and the backrest 22 is thereby pivotable about the collar pivot joints 14a, 15a.

20 The chassis 10 also includes a seat support stanchion 16 pivotably attached at one end by a pivot joint 16a to the short side 11b of the first L-shaped chassis member 11 at the rear of the chassis frame 10. The base 21 is rigidly secured to the other end of the seat support stanchion 16 and a lug 23 extends from the rear of the base 21. A hinge rod 23a extends through the lug 23 and each end of the hinge rod 23a
25 extends through the backrest support stanchions 14, 15 respectively. The base 21 is thereby pivotable relative to the backrest support stanchions 14, 15 about said hinge rod 23a and lug 23.

The mechanism described above allows the seat portion 20 to be moveable from a
30 collapsed position shown in Figures 2 and 4 in which the base 21 and backrest 22 lie substantially flat against the chassis frame 10, to an operative position as shown in Figures 1, 3, 5 and 6 in which the seat portion 20 is erected and the plane of the base 21 is substantially at right angles to the plane of the backrest 22. The

arrangement of the components is such that the backrest support stanchions 14, 15 and the seat support stanchion 16, are moveable relative to one another in a scissor-like action, wherein the central pivot point of the scissor action is the hinge rod 23a and the lug 23 on the base 21. The end of the seat support stanchion 16 remote
5 from the base 21 is only pivotable relative to the chassis member 11, and is not moveable laterally relative to it. Therefore, to enable the scissor-action mentioned above, the collar pivot joints 14a, 15a, to which the backrest support stanchions 14, 15 are attached, slide along a section L_{11} , L_{12} of the chassis members 11, 12 respectively as the seat portion 20 is moved from the erect position to the collapsed
10 position.

The chassis 10 further includes a horizontal axle shaft 31 that extends from the long side 11a of the first chassis member 11 through the long side 12a of the second chassis member 12 and protrudes a short distance out of the other side of the
15 second chassis member 12. A section of the protruding end of the axle shaft 31 is threaded in order to receive a retaining nut 32. The wheel 30 includes a central aperture through which the protruding end of the axle shaft 31 can be received. The retaining nut 32 can then be screwed onto the threaded end of the axle shaft 31 to retain the wheel 30 in place whilst allowing it to be freely rotatable about the axle
20 shaft 31. The wheel 30 is therefore easily removable from the axle shaft 31 by removal of the retaining nut 32. It will be appreciated that other such retaining means may be used instead of a screw thread and retaining nut, for example, a snap-fit retaining cap.

25 A clamp strut 17 is attached at one end to the first chassis member 11 and extends outwardly therefrom away from the second chassis member 12. An attachment clamp 18 is disposed on the other end of the clamp strut 17 and is operable to detachably clamp onto a frame of a conventional pushchair 2. Furthermore, a second attachment clamp 19 is disposed at the end of the short side 12b of the
30 second chassis member 12, and, as with the first attachment clamp, is operable to detachably clamp onto a frame of a conventional pushchair 2. The two attachment clamps 18, 19 together can thereby secure the device 1 of the invention to the side of the conventional pushchair 2. Each attachment clamp 18, 19 is pivotable relative

to the clamp strut 17/chassis member 12 respectively, for reasons which will become apparent from the description hereafter.

The device 1 includes a locking mechanism 40 to enable the seat portion 20 of the device 1 to be retained in the erected operative position (see Figures 5 and 6). The locking mechanism 40 comprises a locking shaft 41 that extends between the slidable collar pivot joints 14a, 15a and is rotatable about its axis relative to the collar pivot joints 14a, 15a. The locking shaft 41 therefore restricts the movement of one collar pivot joint 14a relative to the other 15a, so they can only be moved together and in the same direction. Two locking arms 42, 43 are rigidly secured to the locking shaft 41 and extend rearwardly therefrom, substantially parallel to the long sides 11a, 12a of the chassis members 11, 12. Each arm 42, 43 includes a latch portion 42a, 43a at an end distal from the locking shaft 41. A fixed shaft 44 extends between the chassis members 11, 12 and parallel to the locking shaft 41, and is positioned rearwardly of the locking shaft 41 such that the latch portions 42a, 43a of the arms 42, 43 are just able to be clipped over the fixed shaft 44 and held in this locked position hooked over the fixed shaft 44 by friction therewith. Therefore, when the arms 42, 43 are in this locked position, the collar pivot joints 14a, 15a are prevented from sliding along sections L_{11} , L_{12} of the chassis members 11, 12 respectively, and thereby retain the seat portion 20 in the erect operative position.

As described above, the locking mechanism 40 enables the seat portion 20 of the device 1 to be locked in the erected operative position, and thereby capable of supporting a child thereon in a sitting position next to a child sitting in the pushchair 2 so that they are both facing in the same direction. When the device 1 is not in use, the locking mechanism 40 can be released by unclipping the latch portions 42a, 43a from the fixed shaft 44 and rotating the arms 42, 43 downwards. This can be done by pushing lever release tabs 42b, 43b which are formed on the end of the rotating arms 42, 43 perpendicular thereto and at the end distal from the latch portions 42a, 43a. This will allow the collar pivot joints 14a, 15a to freely slide along sections L_{11} , L_{12} of the chassis members 11, 12 respectively. The base 21 and seat stanchion 16 can then pivot downwards about the pivot joint 16a, and the backrest 22 and backrest stanchions 14, 15 can pivot downwards about the collar

pivot joints 14a, 15a, the backrest stanchions 14, 15 pivoting relative to the seat stanchion 16 about the hinge rod 23a in a scissor-like motion as described above, until the seat portion 20 of the device 1 is in the collapsed position.

5 Once the device 1 has been put into the collapsed position shown in Figures 2 and 4 and as described above, it can be folded up against the side of the conventional pushchair 2 into the storage position, as shown in Figure 7. This is possible due to the attachment clamps 18, 19 being pivotable relative the clamp strut 17/chassis member 12 respectively, as described above. Once the device 1 has been folded into
10 this storage position, it can be held in place by a retaining means such as a clip (not shown).

With the device 1 in the storage position, the pushchair 2 has a much slimmer profile and will fit through normal doorways with ease. However, if a user wishes to
15 neaten the appearance of the pushchair 2 and device 1 combination further, and make it even slimmer, they may unscrew the wheel retaining nut 32 and remove the wheel 30 from the axle shaft 31.

As can be seen in Figure 6, one of the advantages of the present invention is that
20 when it is attached to a pushchair 2 and is not in the folded storage position, the wheel 30 of the device 1 is aligned with or is coaxial with wheels 3 of the pushchair 2. This means that the pushchair 2 and device 1 combination can be tilted backwards on all three wheels 30, 3 about their common contact line on the ground or their common axis, in order to get up a kerb, for example, and so is much more
25 easily manoeuvrable than a conventional pushchair 2 would be with any of the other known add-on devices.

It is intended that the attachment clamps 18, 19 of the device 1 are suitable to attach to a frame of any conventional pushchair 2. However, some pushchairs
30 currently available may not have side frames compatible with the attachment clamps 18, 19, and so it is envisaged that the device may be supplied with a replacement section of pushchair frame 4 that can be substituted for the relevant section of the original frame to allow the device to be attachable thereto. The specific replacement

section of frame 4 could be pushchair-specific, so that a user could identify which pushchair they already own, and purchase a device of the present invention that comes with the appropriate replacement frame section.

5 In an alternative attachment mechanism to that described above, a universal supplementary section of frame 4 could be provided. This supplementary section 4 would be attachable to the attachment clamps 18, 19 and could further include pushchair-specific attachment means 5, 6 to couple the device 1, via the supplementary frame section 4, to the pushchair 2. Therefore, instead of replacing a
10 section of the existing pushchair frame, there would be an additional section of frame 4. In this case, the user would identify which pushchair they already own, and purchase a device 1 of the present invention that comes with the appropriate pushchair-specific attachment means 5, 6 to enable the device 1 to be fitted to their pushchair 2.

15 In a further embodiment of the invention, a strap 7 may be connected between a top part 22a of the backrest 22 and a part of the pushchair 2 which is higher than the top 22a of the backrest 22 (see Figure 6). This strap 7 prevents the auxiliary seat device 1 from pivoting downwards about the attachment clamps 18, 19 relative to
20 the pushchair 2 if the wheel 30 runs over a hole or drops off a kerb, for example. In such a scenario, the weight of the auxiliary seat device 1 (and a child thereon) is transferred through the strap 7 to the pushchair 2 and is balanced out by the weight of said pushchair 2 and of a child in the pushchair seat. It will be appreciated that this means of preventing the auxiliary seat device 1 from pivoting downwards
25 beyond a certain angle does not necessarily need to be a strap 7 as shown in Figure 6. For example, a rigid rod could be used secured to the pushchair 2 and some suitable point on the auxiliary seat device 1.

Other unillustrated embodiments of the present invention may include additional
30 features or accessories. For example, a rain cover could be provided, attachable to the auxiliary seat device 1, to partially or entirely surround a child seated on the device to shelter the child from wind/rain/sleet/snow. The rain cover could

incorporate a supporting frame structure attachable to the device. Alternatively, the device could be provided with a sunshade or parasol.

In addition to the functional accessories mentioned above, the auxiliary seat device
5 1 may also include an accessory intended to amuse the child whilst the child is in the seat. This could include a toy steering wheel or dashboard arrangement, or a hobby-horse style attachment positionable in front of the child.

Claims

1. An auxiliary seat attachable to a pushchair to enable it to accommodate two children seated side-by-side and facing the same direction, the seat comprising a frame having a backrest and a base and a wheel in contact with the ground in an operative position to support a child seated on the base with their back against the backrest, wherein the frame is configured so that the backrest and the base fold substantially flat when the auxiliary seat is not in use.
2. An auxiliary seat according to claim 1 wherein the base and the backrest are pivotable relative to one another such that they are collapsible from the erect operative position to the collapsed folded position by means of a scissor-like mechanism.
3. An auxiliary seat according to claim 2 wherein the scissor-like mechanism includes at least one sliding joint to enable the base and backrest to be erected and collapsed.
4. An auxiliary seat according to claim 3 wherein the backrest is attached to one end of a first support strut and the base is attached to one end of a second support strut, and in which said first and second support struts are pivotable relative to each other and the end of the first support strut remote from the backrest is connected to the at least one sliding joint.
5. An auxiliary seat according to any preceding claim comprising a locking mechanism to retain the seat in the erect operative position.
6. An auxiliary seat according to claim 3 or claim 4 comprising a locking mechanism to retain the seat in the erect operative position and which locks the at least one sliding joint in place.

7. An auxiliary seat according to claim 6 wherein the locking mechanism comprises a latch extending from the at least one sliding joint, operable to lock onto a fixed shaft on the frame.

5 8. An auxiliary seat according to claim 7 wherein the latch is located at one end of an arm, the arm rotatably mounted to the at least one sliding joint and operable to move from a first locked position in which the latch snags on the fixed shaft, to a second unlocked position in which the latch is clear of the fixed shaft to allow movement of the at least one sliding joint.

10

9. An auxiliary seat according to any preceding claim wherein the frame is attached to the pushchair by a first clamping means extending from one side of the frame.

15 10. An auxiliary seat according to claim 9 wherein the first clamping means is attached to a first support strut which is hingedly attached to the frame.

11. An auxiliary seat according to claim 9 or claim 10 wherein the frame is further attached to the pushchair by a second clamping means extending from said
20 one side of the frame.

12. An auxiliary seat according to claim 11 wherein the second clamping means is hingedly attached to the frame.

25 13. An auxiliary seat according to claim 11 or claim 12 wherein the first and second clamping means are attachable to a supplementary pushchair frame bar which includes further attachment means operable to fix the bar and seat attached thereto, to the conventional pushchair.

30 14. An auxiliary seat according to claim 11 or claim 12 wherein the first and second clamping means are attachable to a replacement pushchair frame bar which can be fitted in place of an existing section of frame of a conventional pushchair to fix the seat thereto.

15. An auxiliary seat according to any preceding claim which is releasably attachable to said pushchair.
- 5 16. An auxiliary seat according to any preceding claim which can pivot relative to the pushchair to be folded against the side thereof in a storage position with the wheel off the ground, once the base and backrest of the seat have been folded substantially flat.
- 10 17. An auxiliary seat according to any preceding claim wherein the at least one wheel is detachable.
18. An auxiliary seat according to any preceding claim wherein the at least one wheel is positioned such that when the auxiliary seat is mounted on the pushchair in
15 an operative position, the at least one wheel is in alignment with a rear wheel of the pushchair.
19. An auxiliary seat according to any preceding claim wherein the at least one wheel is positioned such that when the auxiliary seat is mounted on the pushchair in
20 an operative position, an axle of the at least one wheel is coaxial with an axle of a rear wheel of the pushchair.
20. An auxiliary seat according to any preceding claim wherein the seat includes a safety harness to retain a child in position thereon.
- 25 21. An auxiliary seat according to any preceding claim including a rain cover attached to the seat to at least partially surround a child sitting on the seat.
22. An auxiliary seat according to any preceding claim including a sunshade
30 attached to the seat to shade a child sitting on the seat.
23. An auxiliary seat according to any preceding claim including a toy steering wheel positionable in front of a child sitting on the seat.

24. An auxiliary seat according to any preceding claim including a toy hobby-horse style attachment positionable in front of a child sitting on the seat.
- 5 25. A pushchair incorporating an auxiliary seat according to any preceding claim.
26. An auxiliary seat substantially as hereinbefore described with reference to the accompanying drawings.

Amendments to the claims have been filed as follows :

Claims

- 1 An auxiliary seat attachable to a pushchair to enable it to accommodate two
children seated side-by-side and facing the same direction, the seat comprising a
5 frame having a backrest and a base and a wheel in contact with the ground in an
operative position to support a child seated on the base with their back against the
backrest, wherein the frame is configured so that the backrest and the base fold
substantially flat when the auxiliary seat is not in use and wherein the auxiliary seat
can pivot relative to the pushchair to be folded against the side thereof in a storage
10 position with the wheel off the ground, once the base and backrest of the seat have
been folded substantially flat.
2. An auxiliary seat according to claim 1 wherein the base and the backrest are
pivotal relative to one another such that they are collapsible from the erect
15 operative position to the collapsed folded position by means of a scissor-like
mechanism.
3. An auxiliary seat according to claim 2 wherein the scissor-like mechanism
includes at least one sliding joint to enable the base and backrest to be erected and
20 collapsed.
4. An auxiliary seat according to claim 3 wherein the backrest is attached to one
end of a first support strut and the base is attached to one end of a second support
strut, and in which said first and second support struts are pivotal relative to each
25 other and the end of the first support strut remote from the backrest is connected
to the at least one sliding joint
5. An auxiliary seat according to any preceding claim comprising a locking
mechanism to retain the seat in the erect operative position
- 30 6. An auxiliary seat according to claim 3 or claim 4 comprising a locking
mechanism to retain the seat in the erect operative position and which locks the at
least one sliding joint in place

7 An auxiliary seat according to claim 6 wherein the locking mechanism
comprises a latch extending from the at least one sliding joint, operable to lock onto
a fixed shaft on the frame

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8. An auxiliary seat according to claim 7 wherein the latch is located at one end
of an arm, the arm rotatably mounted to the at least one sliding joint and operable
to move from a first locked position in which the latch snags on the fixed shaft, to a
second unlocked position in which the latch is clear of the fixed shaft to allow
10 movement of the at least one sliding joint.

9 An auxiliary seat according to any preceding claim wherein the frame is
attached to the pushchair by a first clamping means extending from one side of the
frame.

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10 An auxiliary seat according to claim 9 wherein the first clamping means is
attached to a first support strut which is hingedly attached to the frame.

11. An auxiliary seat according to claim 9 or claim 10 wherein the frame is
20 further attached to the pushchair by a second clamping means extending from said
one side of the frame.

12. An auxiliary seat according to claim 11 wherein the second clamping means
is hingedly attached to the frame.

25

13 An auxiliary seat according to claim 11 or claim 12 wherein the first and
second clamping means are attachable to a supplementary pushchair frame bar
which includes further attachment means operable to fix the bar and seat attached
thereto, to the conventional pushchair.

30

14 An auxiliary seat according to claim 11 or claim 12 wherein the first and
second clamping means are attachable to a replacement pushchair frame bar which

can be fitted in place of an existing section of frame of a conventional pushchair to fix the seat thereto

15. An auxiliary seat according to any preceding claim which is releasably
5 attachable to said pushchair

16. An auxiliary seat according to any preceding claim wherein the at least one wheel is detachable.

10 17. An auxiliary seat according to any preceding claim wherein the at least one wheel is positioned such that when the auxiliary seat is mounted on the pushchair in an operative position, the at least one wheel is in alignment with a rear wheel of the pushchair.

15 18. An auxiliary seat according to any preceding claim wherein the at least one wheel is positioned such that when the auxiliary seat is mounted on the pushchair in an operative position, an axle of the at least one wheel is coaxial with an axle of a rear wheel of the pushchair

20 19. An auxiliary seat according to any preceding claim wherein the seat includes a safety harness to retain a child in position thereon.

20 An auxiliary seat according to any preceding claim including a rain cover attached to the seat to at least partially surround a child sitting on the seat.
25

21. An auxiliary seat according to any preceding claim including a sunshade attached to the seat to shade a child sitting on the seat

22. An auxiliary seat according to any preceding claim including a toy steering
30 wheel positionable in front of a child sitting on the seat

23. An auxiliary seat according to any preceding claim including a toy hobby-horse style attachment positionable in front of a child sitting on the seat

24. A pushchair incorporating an auxiliary seat according to any preceding claim.
- 25 An auxiliary seat substantially as hereinbefore described with reference to the
5 accompanying drawings



19



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Application No: GB0409729.1

Examiner: Peter Gardiner

Claims searched: 1 to 26

Date of search: 14 July 2004

Patents Act 1977: Search Report under Section 17**Documents considered to be relevant:**

Category	Relevant to claims	Identity of document and passage or figure of particular reference
X,Y	X: 1,5,9,11,15,17,25; Y: 20-24	US 3000645 A (SCHMIDT) see whole document, in particular figures 1 to 4
Y	20	GB 2193692 A (BURGOYNE) note safety harness
Y	21, 22	US 6217099 B1 (MCKINNEY) see whole document, in particular cover protecting against both the sun and rain
Y	23	GB 2122505 A (CASSIDY) see whole document
Y	24	GB 0135437 A (HURLSTONE-JONES) see figure 3 in particular
A	-	DE 20210943 U1 (WEGNER) see whole document

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^W :

B7B

Worldwide search of patent documents classified in the following areas of the IPC⁰⁷

B62B

The following online and other databases have been used in the preparation of this search report



26



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WPI, EPODOC, JAPIO