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(54) **Wheelchair seat back mount assembly and wheelchair therewith**

Baugruppe zur Montage an der Lehne eines Rollstuhls und Rollstuhl damit

Ensemble de montage de dossier de siège de fauteuil roulant et fauteuil roulant correspondant

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EP 1 941 856 B1

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Description

[0001] The invention relates to an assembly for mounting a seat back shell to a wheelchair seat back cane according to the pre-amble of claim 1.

[0002] WO 02/36061 A2 relates to a seatback mounting system that securely self-locks, but unlocks easily with a simple positive action by the user to release the back system from the wheelchair. In a preferred embodiment, the seatback can be conveniently released from its mountings by a simple forward rotation through a prescribed angle in conjunction with a lifting action. The seatback system comprises, in part, a rigid shell seatback having mounted thereto a first pair of laterally extending pin assemblies and a second pair of laterally extending pin assemblies, where each pin assembly has an extending pin portion. The system also comprises a first pair of mounting clips and a second pair of mounting clips. The first pair of mounting clips selectively retains the first pair of pins while the second pair of mounting clips temporarily retains the second pair of pins so long as the first pair of extending pins is secured by the first pair of mounting clips. The first pair of mounting clips are preferably self-locking and manually releasing, and are mounted to an upper portion of the wheelchair's vertical posts or canes. The second pair of mounting clips are preferably "U"-shaped members mounted to a lower portion of a wheelchair's vertical posts or canes wherein the web portion of the "U" receives the pin.

SUMMARY OF THE INVENTION

[0003] This invention relates to an assembly for mounting a seat back shell to a seat back cane of a wheelchair as defined in claim 1. The assembly comprises a first portion attachable to the seat back cane and a second portion attachable to the seat back shell. The portions mate to form a point of attachment by aligning one of the portions with the other portion and displacing one of the portions in relation to the other portion.

[0004] Various aspects of this invention will become apparent to those skilled in the art from the following detailed description of the preferred embodiment, when read in light of the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] Fig. 1 is a partially exploded, environmental perspective view of a seat back mount assembly.

[0006] Fig. 2 is an enlarged-scale, exploded perspective view of the assembly shown in Fig. 1.

[0007] Fig. 3 is an enlarged-scale, exploded perspective view of an adjustable clamp of the assembly shown in Fig. 1.

[0008] Fig. 4 is a reduced-scale, environmental partial rear perspective view of the assembly shown in Fig. 1.

[0009] Figs. 5A-5B are perspective views of a seat back being located and installed with the seat back mount

assembly as shown in Fig. 1.

[0010] Figs. 6A-6F are enlarged, elevational views of a mounting block and a c-shaped mounting bracket of the assembly shown in Fig. 1 at various stages of cooperation.

[0011] Fig. 7 is a cross-sectional view of the mounting block and the c-shaped mounting bracket taken along the lines 7-7 in Fig. 6F.

[0012] Fig. 8 is an enlarged-scale, exploded perspective view of a bottom hook for use with the assembly shown in Fig. 1.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0013] Referring now to the drawings, there is illustrated in Fig. 1 a partially exploded, environmental perspective view of a wheelchair seat back mount assembly 10. The assembly 10 may be comprised of two portions, a first portion, generally indicated at 12, that may be attachable in relation to the wheelchair seat back canes 14 and a second portion, generally indicated at 16, that may be attachable in relation to the wheelchair seat back shell 18. These two portions 12, 16 may mate to form an easy-to-use assembly.

[0014] In the exemplary embodiment shown in Fig. 2, the first portion 12 may include a clamp bracket having a first part, which may be in the form of a tube clamp plate 20, and a second part, which may be in the form of a tube clamp hinge 22a that may cooperate with the tube clamp plate 20. The tube clamp plate 20 may have a relatively planar main body portion 20a and a curved or hooked portion, generally indicated at 20b, extending from the main body portion 20a. Spaced fingers 20c may extend from the hooked portion 20b. Aligning holes 20d in the fingers 20c may receive a dowel pin 24, which may fit tightly in the holes 20d. The tube clamp hinge 22 may have a curved or hooked portion 22a, which may be similar to the hook portion 20b of the tube clamp plate 20. A tab 22b may extend from the hooked portion 22a. The tab 22b may be sized to fit between the fingers 20c. A groove 22c on the tabs may engage the dowel pin 24 to form a connection between the tube clamp plate 20 and the tube clamp hinge 22. The engaging groove 22c and dowel pin 24, in effect, may form a hinge. Multiple grooves, such as the two grooves 22c shown, may be provided for selective engagement with the dowel pin 24 to adjust the size of the clamp bracket, as will become apparent in the description that follows. A tongue 22d may extend from the hooked portion 22a, opposite the tab 22b. One or more bores 22e may pass the tongue 22d. One or more fasteners 26, such as the cap screws shown, may pass through the bores 22e, which may be counter bores, in the tongue 22d and may be threaded into aligning threaded holes 20e in the main body portion 20a of the clamp bracket to fasten the tongue 22d of the tube clamp hinge 22 to the main body portion 20a of the tube clamp plate 20. The fasteners 26 may be threaded

into nuts, such as the lock nuts shown, on the opposite side (i.e., the blind side when viewing Fig. 2) of the main body portion 20a. The nuts may be recessed in hexagonal holes in the main body portion 20a so that the hexagonal holes prevent the nuts from turning.

[0015] In the exemplary embodiment, a mounting block 28 may be supported in relation to the clamp bracket, such as in relation to the tube clamp plate 20 or in relation to the main body portion 20a of the tube clamp plate 20. The mounting block 28 may be mounted with one or more fasteners 30, such as the cap screws shown. For example, one or more bores 20g, which may be counter bores, may be provided through the main body portion 20a and may align with holes 28a, 28b through the mounting block 28. The fasteners 30 may pass through the bores 20g in the main body portion 20a and further through aligning holes 28a, 28b in the mounting block 28. The fasteners 30 may then be threaded into nuts, such as the lock nuts shown, on the opposite side of the mounting block 28. The nuts may be recessed in holes in the mounting block 28 (i.e., the blind side when viewing Fig. 2). The holes may be dimensioned and configured to prevent the nuts from turning.

[0016] It should be noted that the main body portion 20a may have a plurality of bores 20g, including three sets or pairs of bores. Each pair may be arranged to support the seat back shell 18 at a different angle. For example, the three pairs of bores may support the seat back shell 18 at 0, 5, and 10 degrees (i.e., relative to vertical when viewing Fig. 1). The main body portion 20a may be provided with indicia, as shown in Fig. 3, corresponding with each pair of bores to indicate the angular disposition of the seat back shell 18 if a corresponding pair of bores is used.

[0017] It should further be noted that at least one of the holes 28b through the exemplary mounting block 28 may be curved or arcuate in shape to permit the mounting block 28 to pivot when the fasteners 30 are loosened, such as along the line B-B shown in Fig. 4. In particular, the mounting block 28 may have two holes 28a, 28b. Two fasteners 30 may pass through the two holes 28a, 28b. One fastener 30 passing through one hole 28a may function as a pivot. The other fastener 30 may pass through the other hole 28b, which may be curved or arcuate in shape. In this way, the mounting block 28 may be able to pivot on the one fastener 30 as the mounting block 28 moves in relation to the other fastener 30 due to the provision of the curved or arcuate shaped hole 28b.

[0018] As shown in Fig. 2, the exemplary mounting block 28 may have a substantially circular shaped portion 28c and a substantially oval or kidney shaped portion 28d separated by a necked-down portion 28e, when viewed from a point parallel or along the axes A1, A2 of the holes 28a, 28b therethrough. The hole 28a for the fastener 30 that may function as a pivot passes through the circular portion 28c. The arcuate shaped hole 28b may pass through the substantially oval or kidney shaped portion 28d. Additionally, the mounting block 28 may

have a first or outer portion 28f and a second or inner portion 28g, which may be reduced in size so as to be smaller in dimension when viewed from a point transverse or crosswise from the axes A1, A2 of the holes 28a, 28b therethrough. The larger outer portion 28f may form a first flange that extends radially outward in relation to the inner portion 28g. A substantially pointed guide 28h may extend (upwardly when viewing Fig. 2) from the top of the flange.

[0019] The second portion 16 of the assembly 10 may include a substantially C-shaped mounting bracket having a first or outer portion 16a and a second or inner portion 16b, which may be of a different size or dimension relative to the outer portion 16a so that the inner portion 16b may form a second flange that may extend radially inward in relation to the outer portion 16a. The C-shaped mounting bracket may define a radial opening 16d and the flange may define an axial opening 16e. The radial opening 16d may permit passage of the mounting block 28 when aligned or oriented in a first orientation and prevents passage of the mounting block 28 when displaced or oriented in a second orientation. The axial opening 16e may restrict axial passage of the mounting block 28 when in the second orientation. The outer portion 16a may be dimensioned and configured to be substantially complementary in shape to the outer portion 28f of the mounting block 28, and may include, for example, a region, such as the radial opening 16d or channel 16d shown in Fig. 7, into which the pointed guide 28h may be inserted. The inner portion 16b may be dimensioned and configured to be substantially complementary in shape to the outer portion 28f of the mounting block 28. The two flanges may cooperate to form an attachment between the mounting block 28 and the C-shaped mounting bracket when oriented in a certain orientation (e.g., the first orientation) in relation to one another, as will become more apparent in the description that follows.

[0020] The exemplary C-shaped mounting bracket may be mounted in relation to the seat back shell 18 by a top mount bracket 32. The exemplary top mount bracket 32 is a substantially L-shaped or V-shaped bracket having one or more holes or slots 32a therein that permit adjustment, such as lateral adjustment, of the top mount bracket 32 in relation to the seat back shell 18. The C-shaped mounting bracket may have one or more bores 16c, such as the counter bores shown, passing therethrough. The top mount bracket 32 may have threaded holes 32b that may align with the bores 16c. Fasteners 38, such as the cap screws shown, may pass through the bores 16c and be threaded into the holes 32b to fasten the C-shaped mounting bracket to the top mount bracket 32. The top mount bracket 32 may, in turn, be fastened to the seat back shell 18 in any suitable manner, such as via the stud plate 40, washers 39, and nuts 41 (e.g., locknuts) shown.

[0021] Referring back to Fig. 1, a mounting block 28 is shown fastened in relation to each seat cane 14 and a C-shaped mounting bracket is fastened in relation to

each side of the seat back shell 18. An attachment may be formed between each mounting block 28 and a corresponding C-shaped mounting bracket. This may form two points of attachment of the seat back shell 18 in relation to the seat back canes 14. With the mounting block 28 and the C-shaped mounting bracket installed in relation to the seat back canes 14 and the seat back shell 18, the seat back shell 18 may be easily installed by aligning the second portions 16 in relation to (e.g. over) the first portions 12 and then rotating the seat back shell 18 downward into a positive latched position, as depicted in Figs. 5A-5B.

[0022] With the provision of only two points of attachment, it may be simple to align the mounting block 28 with the C-shaped mounting bracket. With the mounting block 28 and the C-shaped mounting bracket aligned, the mounting block 28 may be inserted into the C-shaped mounting bracket with the pointed guide 28h entering the channel 16d of the C-shaped mounting bracket, as shown in Figs. 6A-6B. The seat back shell (not shown) may then be rotated or pivoted (e.g., in a clockwise direction when viewing Fig. 6D) until the pointed guide 28h makes abutting contact with the C-shaped mounting bracket at the end of the channel 16d and the substantially oval or kidney shaped portion 28d of the mounting block 28 makes abutting contact with a corresponding portion of the C-shaped mounting bracket, as shown in Figs. 6E-6F. The abutting contact may resist further rotation or pivotal movement of the seat back shell 18 (e.g., in a clockwise direction when viewing Fig. 6D).

[0023] As shown in Fig. 7, the respective flanges of the mounting block 28 and the C-shaped mounting bracket may cooperate to prevent lateral movement of the mounting block 28 and the C-shaped mounting bracket in relation to one another to form a point of attachment on each seat back cane 14.

[0024] To supplement the support provided by the two points of attachment, a bottom hook 42, shown in Fig. 8, may be attached to each side of the seat back shell 18 at a lower portion of the seat back shell 18 (i.e., below the attachment points). The exemplary bottom hooks 42 may be provided with one or more holes or slots 42a therein that permit lateral adjustment of the bottom hooks 42 in relation to the seat back shell 18. This may permit proper alignment of the bottom hooks 42 in relation to the seat back canes 14. As shown in Fig. 1, the bottom hooks 42 may abut the seat back canes 14 to limit movement of the lower portion to the seat back shell 18 in relation to the canes 14. The bottom hooks 42 may be fastened to the seat back shell 18 in any suitable manner, such as with the stud plates 44, washers 46 and nuts 48 shown. The nuts 48 may be lock nuts. A covering material 50, such as a plastic or rubber covering may cover the bottom hooks 42 to provide a relatively resilient contact between the bottom hooks 42 and the canes 14.

[0025] It should be noted that different shaped back canes can be accommodated by the pivotal adjustment of the mounting block 28 in relation to the tube clamp

plate 20. This may further insure that the bottom hooks 42 are properly aligned with the seat back canes 14. For example, different back canes may be at different angles relative to vertical, or may not follow a straight line and thus have portions that are at different angles relative to vertical. In these cases, the orientation of the mounting block 28 may be pivotally adjusted in relation to the back canes, depending on the angle of the back cane in relation to vertical at the point which the mounting block 28 is mounted to the back cane.

[0026] To accommodate different diameter canes 14, the clamp bracket may be adjustable. As described above, the clamp bracket may have a tube clamp plate 20 with a pin 24 and a tube clamp hinge 22 with grooves 22c that may be selectively engageable with the pin 24 so the clamp 22 may be used with different sized seat back canes 14. For example, one groove may accommodate 7/8 inch (22 mm) diameter canes while another groove may accommodate 1 inch (25 mm) diameter canes.

[0027] Most of the load applied on the seat back shell 18 may be applied in the shoulder area of the shell 18. The main attachment points of the assembly 10 may be in the same area, providing good support and minimizing the risk that the seat back shell 18 will become unintentionally detached.

[0028] It should be appreciated that the clamp bracket and top mount bracket are exemplary brackets and other forms of connection may be provided for the mounting block 28 and the C-shaped mounting bracket. It should further be appreciated that the mounting block 28 and the C-shaped mounting bracket are exemplary embodiments and that the mounting block and the mounting bracket may take on other shapes or forms. Further, the fasteners 26, 30, 38 and stud plates 40, 44 are exemplary fasteners and other fasteners may be employed. The bottom hook 42 is described for exemplary purposes and other structure may be suitable for use in the place of the bottom hooks 42.

[0029] It should be appreciated that the mounting block and mounting bracket may be cooperatively configured in any suitable manner, whereby the mounting bracket is oriented in such a way to cooperate with the mounting block, such as by insertion, and then displaced by rotation to interlock the mounting block and the mounting bracket. The axial opening is provided as an example of a captive or restrictive opening, which may be defined by an annular flange or other suitable structure or configuration. Other structures may be suitable for interlocking the mounting block and the mounting bracket. Further, the pointed guide functions in cooperation with the mounting bracket as an interference member. It should be appreciated that other structure may be suitable for functioning as an interference member.

[0030] The principle and mode of operation of this invention have been explained and illustrated in its preferred embodiment. However, it must be understood that this invention may be practiced otherwise than as spe-

cifically explained and illustrated without departing from its scope.

Claims

1. An assembly for mounting a seat back shell (18) to a wheelchair seat back cane (14), the assembly comprising:

a first portion (12) attachable in relation to the seat back cane (14), wherein the first portion (12) comprises a tube clamp that is attachable in relation to the seat back cane (14); and
a second portion (16) attachable in relation to the seat back shell (18), **characterised in that** the first portion (12) further comprises a mounting block (28), attachable in relation to the tube clamp, and **in that** the second portion is configured to receive the mounting block (28) and rotate in relation to the mounting block (28) to lock the second portion (16) in relation to the first portion (12).

2. The assembly of claim 1, wherein the tube clamp comprises a first part (20) and a second part (22a) hinged in relation to the first part (20).

3. The assembly of claim 2, wherein the second part (22a) is hinged in relation to the first part (20) in a plurality of positions to accommodate different size seat back canes (14).

4. The assembly of claim 1, wherein the mounting block (28) is attachable in relation to the tube clamp in a plurality of positions to adjust the angle of the seat back shell (18) in relation to the seat back canes (14).

5. The assembly of claim 1, wherein the mounting block (28) is pivotally adjustable in relation to the tube clamp in any one of the plurality of positions to accommodate different shaped back canes (14).

6. The assembly of claim 1, wherein the second portion (16) comprises a mounting bracket (32) that is attachable in relation to the seat back shell (18).

7. The assembly of claim 6, wherein the mounting bracket (32) is adjustable in relation to the seat back shell (18).

8. The assembly of claim 6, wherein the mounting bracket (32) is laterally adjustable in relation to the seat back shell (18).

9. The assembly of claim 1, wherein the second portion (16) comprises a mounting bracket, the mounting bracket comprising a radial opening (16d) and an

axial opening (16e), the radial opening (16d) permitting passage of the mounting block (28) when oriented in a first orientation and preventing passage of the mounting block (28) when oriented in a second orientation, the axial opening (16e) restricting axial passage of the mounting block (28).

10. The assembly of claim 9, wherein the mounting block (28) comprises an inner portion (28g) and an outer portion (28f), the inner portion (28g) comprising a substantially circular shaped portion (28c) and a kidney shaped portion (28d) with a necked-down portion (28e) therebetween, the outer portion (28f) defining a first flange, and wherein the mounting bracket is substantially C-shaped and comprises an inner portion (16b) defining a second flange, the axial opening (16e) being bound by the second flange and having a shape complementary to the mounting block (28) inner portion, the first and second flanges being dimensioned and configured to restrict axial passage of the mounting block (28) inner portion through the mounting bracket (32).

11. The assembly of claim 1, wherein the assembly is suitable for mounting the seat back shell to spaced apart wheelchair seat back canes (14), and wherein:

the first portion is one of a pair of first portions (12) comprised in the assembly, each being attachable in relation to a respective one of the seat back canes (14); and

the second portion is one of a pair of second portions (16) comprised in the assembly, each second portion (16) being attachable in relation to a respective one of opposing sides of the seat back shell (18), the second portions (16) being configured to receive the first portions (12) and rotate in relation to the first portions (12) to lock the second portions (16) in relation to the first portions (12) and thus form a two-point mounting assembly.

12. The assembly of claim 11, wherein the first portions (12) each comprises a tube clamp attachable in relation to the seat back canes (14), the tube clamp comprising a first part (20) and a second part (22a) hinged in relation to the first part (20) in a plurality of positions to accommodate different size seat back canes (14).

13. The assembly of claim 12, wherein the first portions (12) each comprise a mounting block (28) attachable in relation to the tube clamp, the second portions (16) being configured to receive the mounting blocks (28) and rotate in relation to the mounting blocks (28) to lock the second portions (16) in relation to the first portions (12).

14. The assembly of claim 13, wherein the mounting blocks (28) are attachable in relation to the tube clamps in a plurality of positions to adjust the angle of the seat back shell (18) in relation to the seat back canes (14).
15. The assembly of claim 11, wherein the second portions (16) each comprise a mounting bracket (32) that is attachable in relation to the seat back shell (18), the mounting bracket (32) being laterally adjustable in relation to the seat back shell (18).
16. The assembly of claim 11, further comprising a pair of hooks (42), the hooks (42) each being attachable in relation to the seat back shell (18) below the second portions (16).

Patentansprüche

1. Anordnung zur Montage einer Sitzlehnschale (18) am Sitzlehnenrohr (14) eines Rollstuhls, wobei die Anordnung umfasst:

einen ersten Abschnitt (12) der bezogen auf das Sitzlehnenrohr anbringbar ist, wobei der erste Abschnitt (12) eine Rohrklemme umfasst, die bezogen auf das Sitzlehnenrohr (14) anbringbar ist, und

einen zweiten Abschnitt (16), der bezogen auf die Sitzlehnschale (18) anbringbar ist,

dadurch gekennzeichnet, dass der erste Abschnitt (12) ferner einen Montageblock (28) umfasst, der bezogen auf die Rohrklemme anbringbar ist, und dass der zweite Abschnitt so ausgestaltet ist, dass er den Montageblock (28) aufnimmt und sich bezogen auf den Montageblock (28) dreht, um den zweiten Abschnitt (16) bezogen auf den ersten Abschnitt (12) zu arretieren.

2. Anordnung nach Anspruch 1, wobei die Rohrklemme einen ersten Teil (20) und einen bezogen auf den ersten Teil (20) gelenkig angebrachten zweiten Teil (22a) umfasst.
3. Anordnung nach Anspruch 2, wobei der zweite Teil (22a) bezogen auf den ersten Teil (20) an einer Mehrzahl von Stellen gelenkig angebracht ist, um unterschiedlich großen Sitzlehnenrohren (14) Rechnung zu tragen.
4. Anordnung nach Anspruch 1, wobei der Montageblock (28) bezogen auf die Rohrklemme an einer Mehrzahl von Stellen anbringbar ist, um den Winkel der Sitzlehnschale (18) bezogen auf die Sitzlehnenrohre (14) einzustellen.
5. Anordnung nach Anspruch 1, wobei der Montage-

block (28) bezogen auf die Rohrklemme an jeder der Mehrzahl von Stellen verschwenkbar ist, um unterschiedlich geformten Lehnrohren (14) Rechnung zu tragen.

6. Anordnung nach Anspruch 1, wobei der zweite Abschnitt (16) eine Montageklammer (32) umfasst, die bezogen auf die Sitzlehnschale (18) anbringbar ist.

7. Anordnung nach Anspruch 6, wobei die Montageklammer (32) bezogen auf die Sitzlehnschale (18) verstellbar ist.

8. Anordnung nach Anspruch 6, wobei die Montageklammer (32) bezogen auf die Sitzlehnschale (18) seitlich verstellbar ist.

9. Anordnung nach Anspruch 1, wobei der zweite Abschnitt (16) eine Montageklammer umfasst, wobei die Montageklammer eine radiale Öffnung (16d) und eine axiale Öffnung (16e) umfasst, wobei die radiale Öffnung (16d) das Hindurchführen des Montageblocks (28) erlaubt, wenn sie in einer ersten Ausrichtung ausgerichtet ist, und das Hindurchführen des Montageblocks (28) verhindert, wenn sie in einer zweiten Ausrichtung ausgerichtet ist, wobei die axiale Öffnung (16e) das axiale Hindurchführen des Montageblocks (28) beschränkt.

10. Anordnung nach Anspruch 9, wobei der Montageblock (28) einen inneren Abschnitt (28g) und einen äußeren Abschnitt (28f) umfasst, wobei der innere Abschnitt (28g) einen im Wesentlichen kreisförmigen Abschnitt (28c) und einen nierenförmigen Abschnitt (28d) mit einem dazwischen liegenden verengten Abschnitt (28e) umfasst, wobei der äußere Abschnitt (28f) einen ersten Flansch definiert und wobei die Montageklammer im Wesentlichen C-förmig ist und einen inneren Abschnitt (16b) umfasst, der einen zweiten Flansch definiert, wobei die axiale Öffnung (16e) von dem zweiten Flansch eingefasst ist und eine zum inneren Abschnitt des Montageblocks (28) komplementäre Form aufweist, wobei der erste und zweite Flansch so bemessen und ausgestaltet sind, dass sie das axiale Hindurchführen des inneren Abschnitts des Montageblocks (28) durch die Montageklammer (32) beschränken.

11. Anordnung nach Anspruch 1, wobei die Anordnung zur Montage der Sitzlehnschale an voneinander beabstandeten Sitzlehnenrohren (14) eines Rollstuhls geeignet ist und wobei:

der erste Abschnitt einer eines von der Anordnung umfassten Paares erster Abschnitte (12) ist, wobei jeder bezogen auf ein jeweiliges der Sitzlehnenrohre (14) anbringbar ist, und

der zweite Abschnitt einer eines von der Anordnung umfassten Paars zweiter Abschnitte (16) ist, wobei jeder zweite Abschnitt (16) bezogen auf eine jeweilige entgegengesetzter Seiten der Sitzlehnschale (18) anbringbar ist, wobei die zweiten Abschnitte (16) so ausgestaltet sind, dass sie die ersten Abschnitte (12) aufnehmen und sich bezogen auf die ersten Abschnitte (12) drehen, um die zweiten Abschnitte (16) bezogen auf die ersten Abschnitte (12) zu arretieren und so eine Zweipunkt-Montageanordnung auszubilden.

12. Anordnung nach Anspruch 11, wobei die ersten Abschnitte (12) jeweils eine Rohrklemme aufweisen, die bezogen auf die Sitzlehnenrohre (14) anbringbar ist, wobei die Rohrklemme einen ersten Teil (20) und einen zweiten Teil (22a), der bezogen auf den ersten Teil (20) an einer Mehrzahl von Stellen gelenkig angebracht ist, um unterschiedlich großen Sitzlehnenrohren (14) Rechnung zu tragen, aufweist.
13. Anordnung nach Anspruch 12, wobei die ersten Abschnitte (12) jeweils einen Montageblock (28) umfassen, der bezogen auf die Rohrklemme anbringbar ist, wobei die zweiten Abschnitte (16) so ausgestaltet sind, dass sie die Montageblöcke (28) aufnehmen und sich bezogen auf die Montageblöcke (28) drehen, um die zweiten Abschnitte (16) bezogen auf die ersten Abschnitte (12) zu arretieren.
14. Anordnung nach Anspruch 13, wobei die Montageblöcke (28) bezogen auf die Rohrklemmen an einer Mehrzahl von Stellen anbringbar sind, um den Winkel der Sitzlehnschale (18) bezogen auf die Sitzlehnenrohre (14) einzustellen.
15. Anordnung nach Anspruch 11, wobei die zweiten Abschnitte (16) jeweils eine Montageklammer (32) umfassen, die bezogen auf die Sitzlehnschale (18) anbringbar ist, wobei die Montageklammer (32) bezogen auf die Sitzlehnschale (18) seitlich verstellbar ist.
16. Anordnung nach Anspruch 11, die ferner ein Paar Haken (42) umfasst, wobei die Haken (42) jeweils bezogen auf die Sitzlehnschale (18) unterhalb der zweiten Abschnitte (16) anbringbar sind.

Revendications

1. Ensemble de montage d'un dossier de siège (18) sur une tige arrière de siège (14) de fauteuil roulant, l'ensemble comprenant :

une première partie (12) pouvant être fixée par

rapport à la tige arrière de siège (14), la première partie (12) comprenant une pince pour tube qui peut être fixée par rapport à la tige arrière de siège (14) ; et

une seconde partie (16) pouvant être fixée par rapport au dossier de siège (18),

caractérisé en ce que la première partie (12) comprend en outre un bloc de montage (28), pouvant être fixé par rapport à la pince pour tube, et la seconde partie est configurée pour recevoir le bloc de montage (28) et tourne par rapport au bloc de montage (28) pour verrouiller la seconde partie (16) par rapport à la première partie (12).

2. Ensemble selon la revendication 1, dans lequel la pince pour tube comprend une première pièce (20) et une seconde pièce (22a) articulée par rapport à la première pièce (20).
3. Ensemble selon la revendication 2, dans lequel la seconde pièce (22a) est articulée par rapport à la première pièce (20) dans une pluralité de positions pour accueillir des tiges arrière de siège (14) de différentes tailles.
4. Ensemble selon la revendication 1, dans lequel le bloc de montage (28) peut être fixé par rapport à la pince pour tube dans une pluralité de positions pour régler l'angle du dossier de siège (18) par rapport aux tiges arrière de siège (14).
5. Ensemble selon la revendication 1, dans lequel le bloc de montage (28) est réglable par pivotement par rapport à la pince pour tube dans l'une quelconque parmi la pluralité de positions afin d'accueillir des tiges arrière (14) de différentes formes.
6. Ensemble selon la revendication 1, dans lequel la seconde partie (16) comprend un support de montage (32) qui peut être fixé par rapport au dossier de siège (18).
7. Ensemble selon la revendication 6, dans lequel le support de montage (32) est réglable par rapport au dossier de siège (18).
8. Ensemble selon la revendication 6, dans lequel le support de montage (32) est réglable de manière latérale par rapport au dossier de siège (18).
9. Ensemble selon la revendication 1, dans lequel la seconde partie (16) comprend un support de montage, le support de montage comprenant une ouverture radiale (16d) et une ouverture axiale (16e), l'ouverture radiale (16d) permettant un passage du bloc de montage (28) lorsqu'il est orienté selon une première orientation et empêchant le passage du bloc de montage (28) lorsqu'il est orienté selon une

seconde orientation, l'ouverture axiale (16e) restreignant le passage axial du bloc de montage (28).

10. Ensemble selon la revendication 9, dans lequel le bloc de montage (28) comprend une partie intérieure (28g) et une partie extérieure (28f), la partie intérieure (28g) comprenant une partie (28c) de forme essentiellement circulaire et une partie (28d) en forme de haricot avec une partie (28e) étranglée située entre celles-ci, la partie extérieure (28f) définissant une première bride, et dans lequel le support de montage est essentiellement en forme de C et comprend une partie intérieure (16b) définissant une seconde bride, l'ouverture axiale (16e) étant délimitée par la seconde bride et présentant une forme complémentaire de la partie intérieure du bloc de montage (28), les première et seconde brides étant dimensionnées et configurées pour restreindre un passage axial de la partie intérieure du bloc de montage (28) à travers le support de montage (32).

11. Ensemble selon la revendication 1, dans lequel l'ensemble est approprié pour un montage du dossier de siège sur des tiges arrière de siège (14) de fauteuil roulant espacées, et dans lequel :

la première partie est une parmi une paire de premières parties (12) comprises dans l'ensemble, chaque première partie pouvant être fixée par rapport à une respectivement parmi les tiges arrière de siège (14) ; et

la seconde partie est une parmi une paire de secondes parties (16) comprises dans l'ensemble, chaque seconde partie (16) pouvant être fixée par rapport à une respectivement parmi des côtés opposés du dossier de siège (18), les secondes parties (16) étant configurées pour recevoir les premières parties (12) et tourner par rapport aux premières parties (12) pour verrouiller les secondes parties (16) par rapport aux premières parties (12) et former ainsi un ensemble de montage à deux points.

12. Ensemble selon la revendication 11, dans lequel les premières parties (12) comprennent chacune une pince pour tube pouvant être fixée par rapport aux tiges arrière de siège (14), la pince pour tube comprenant une première pièce (20) et une seconde pièce (22a) articulée par rapport à la première pièce (20) dans une pluralité de positions pour accueillir des tiges arrière de siège (14) de différentes tailles.

13. Ensemble selon la revendication 12, dans lequel les premières parties (12) comprennent chacune un bloc de montage (28) pouvant être fixé par rapport à la pince pour tube, les secondes parties (16) étant configurées pour recevoir les blocs de montage (28) et pivoter par rapport aux blocs de montage (28) pour

verrouiller les secondes parties (16) par rapport aux premières parties (12).

14. Ensemble selon la revendication 13, dans lequel les blocs de montage (28) peuvent être fixés par rapport aux pinces pour tube dans une pluralité de positions afin de régler l'angle du dossier de siège (18) par rapport aux tiges arrière de siège (14).

15. Ensemble selon la revendication 11, dans lequel les secondes parties (16) comprennent chacune un support de montage (32) qui peut être fixé par rapport au dossier de siège (18), le support de montage (32) pouvant être réglé latéralement par rapport au dossier de siège (18).

16. Ensemble selon la revendication 11, comprenant en outre une paire de crochets (42), les crochets (42) pouvant chacun être fixés par rapport au dossier de siège (18) en dessous des secondes parties (16).

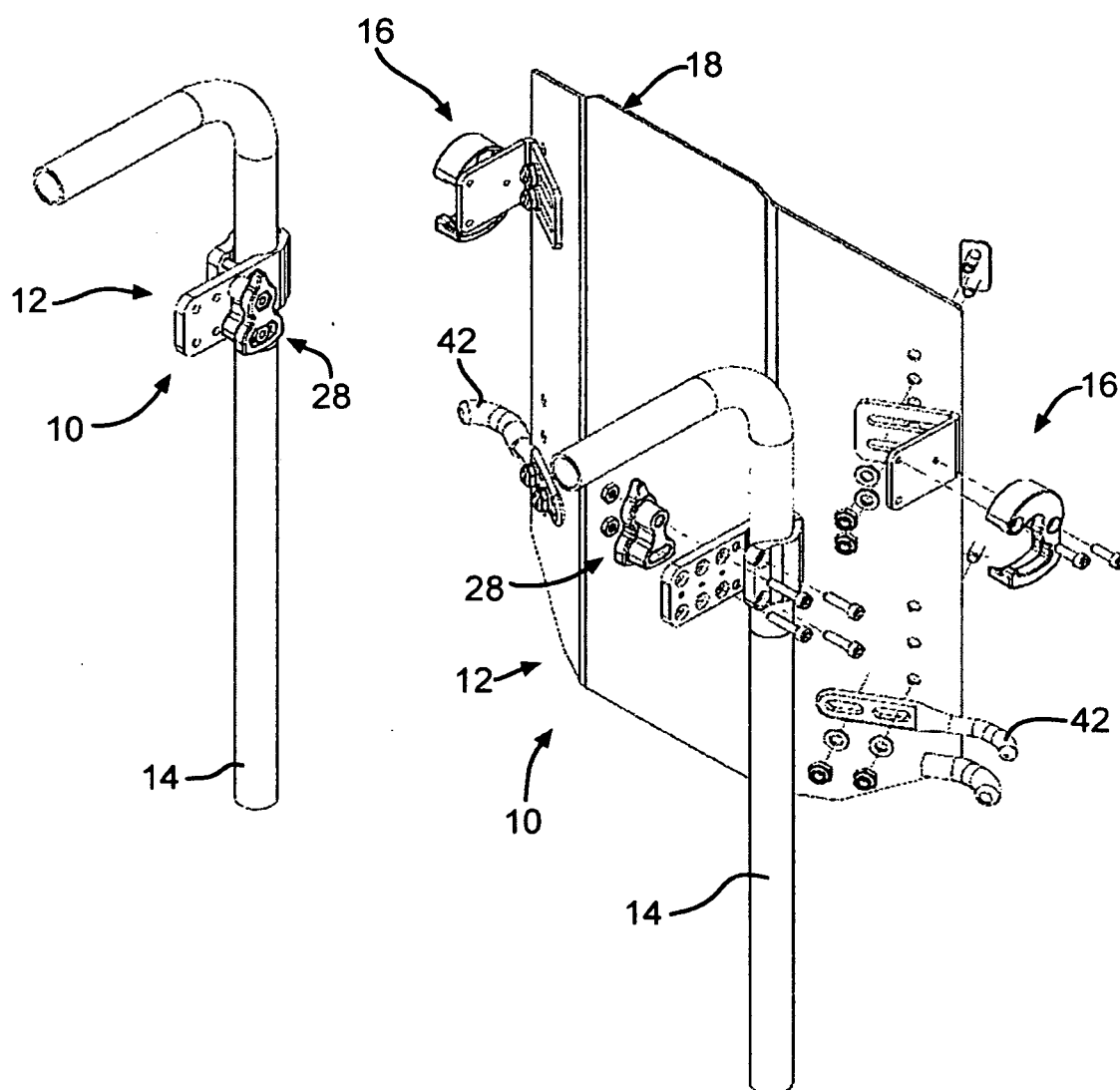


FIG. 1

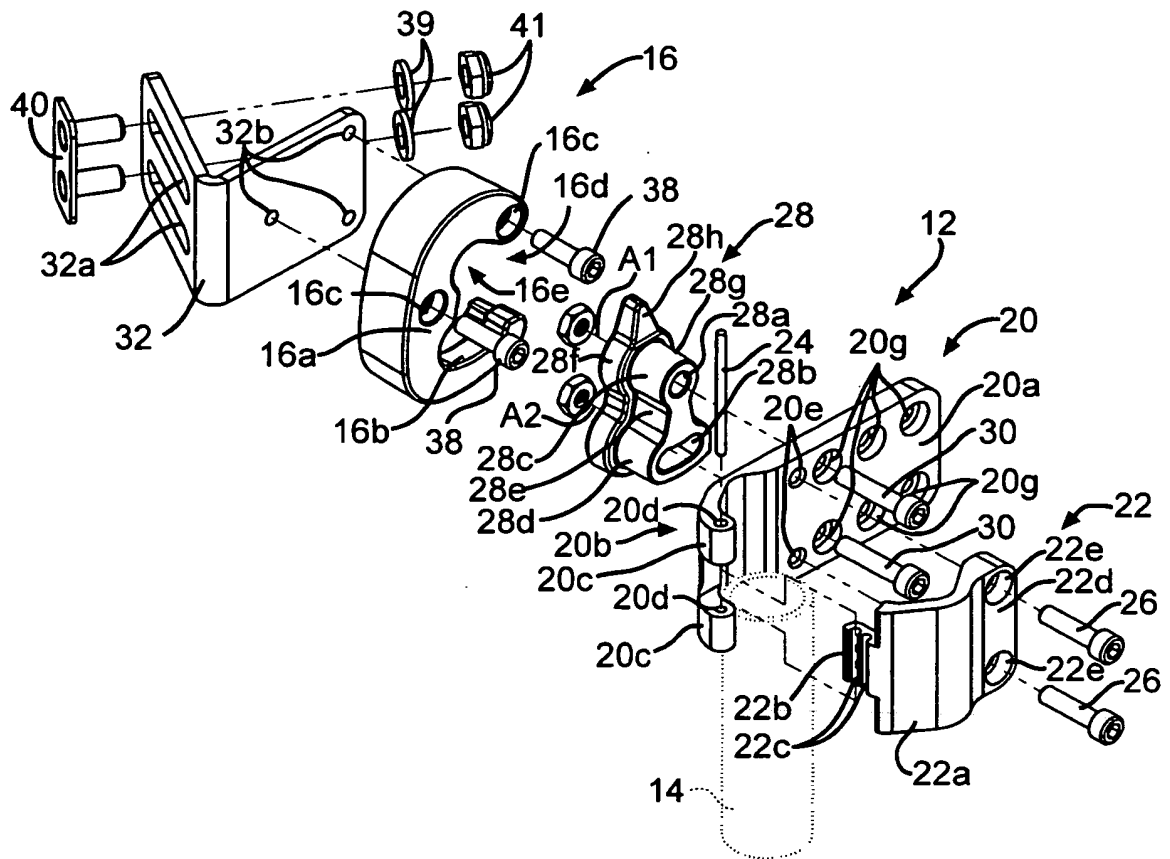


FIG. 2

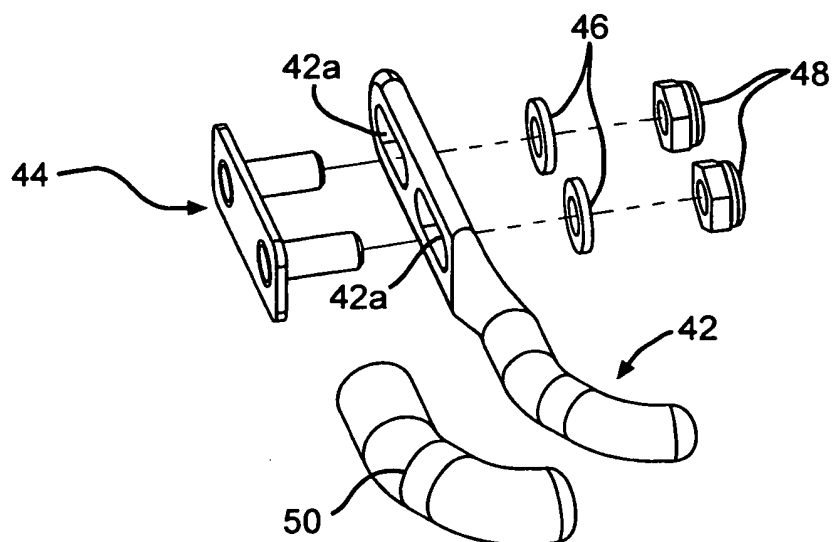


FIG. 8

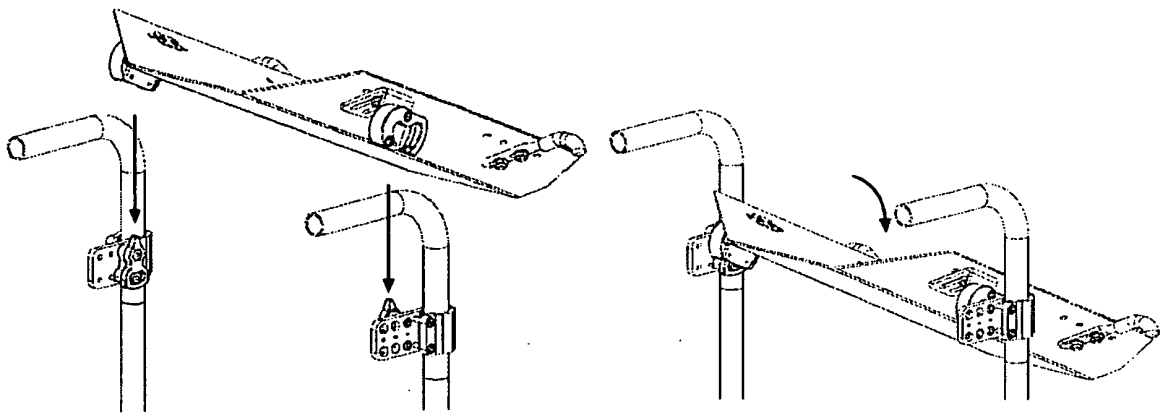


FIG. 5A

FIG. 5B

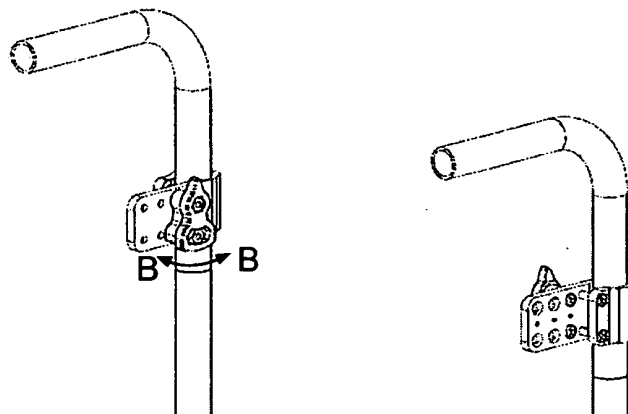


FIG. 4

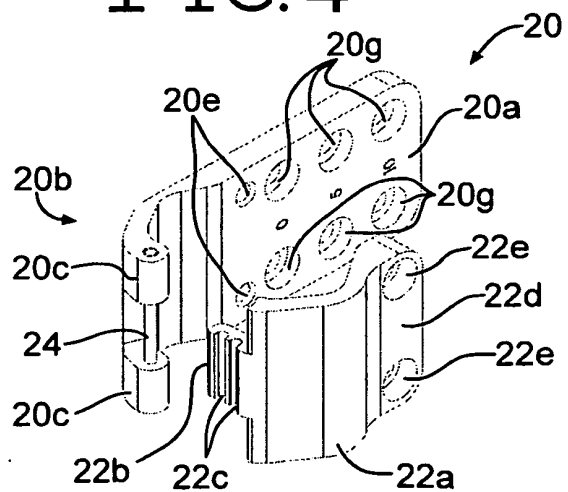


FIG. 3

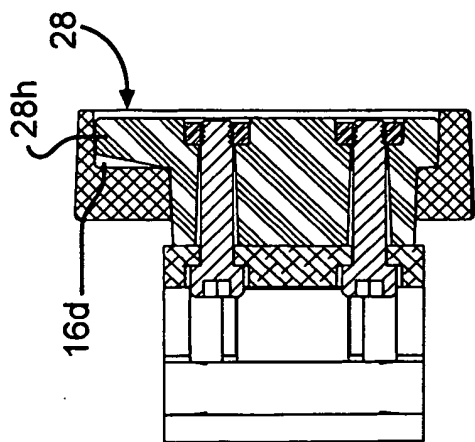


FIG. 7

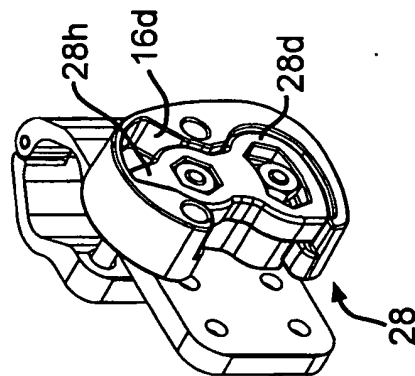


FIG. 6E

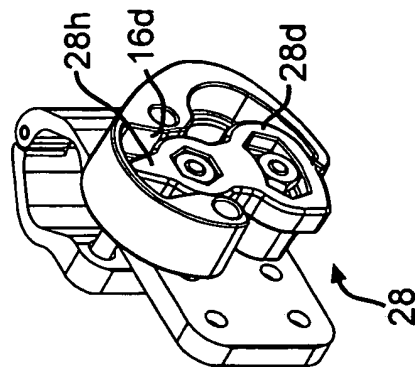


FIG. 6C

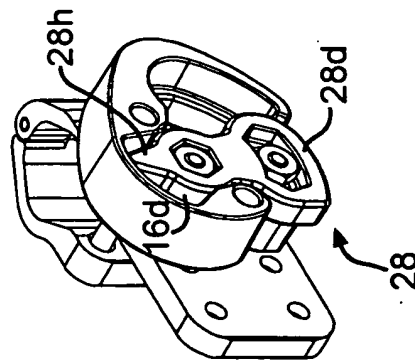


FIG. 6A

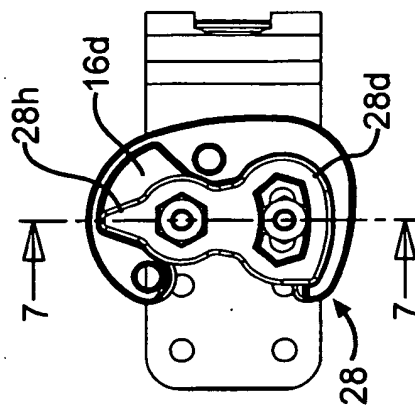


FIG. 6F

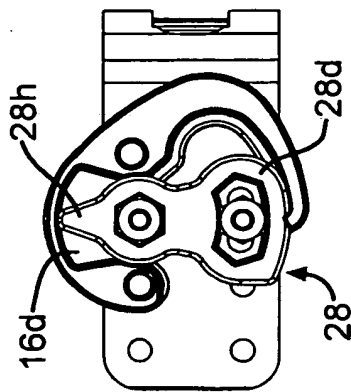


FIG. 6D

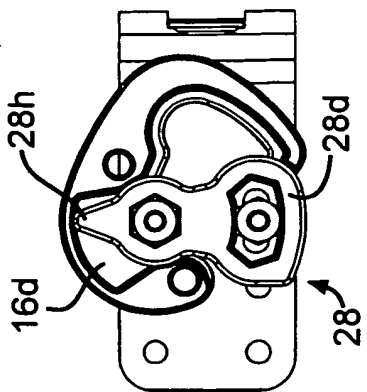


FIG. 6B

REFERENCES CITED IN THE DESCRIPTION

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