(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 2 217 112 B1

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
**16.05.2012 Bulletin 2012/20**

(21) Application number: **08846091.0**

(22) Date of filing: **28.10.2008**

(51) Int Cl.:
***A47C 1/126*** *(2006.01)* ***E04H 3/12*** *(2006.01)*

(86) International application number:
**PCT/FI2008/050607**

(87) International publication number:
**WO 2009/056678 (07.05.2009 Gazette 2009/19)**

(54) **FOLDING SEAT, SPECTATOR STAND ELEMENT AND SUPPORT MEMBER FOR SEAT**

KLAPPSITZ, ZUSCHAUERSTANDELEMENT UND STÜTZELEMENT FÜR DEN SITZ

SIÈGE PLIANT, ÉLÉMENT DE TRIBUNE DE SPECTATEURS ET ÉLÉMENT DE SUPPORT POUR SIÈGE

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR**
Designated Extension States:
**AL BA MK RS**

(30) Priority: **29.10.2007 FI 20070818**

(43) Date of publication of application:
**18.08.2010 Bulletin 2010/33**

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## Description

**[0001]** The invention relates to a folding seat, which has at least two leg parts, at least one seat level, which is pivotably attached to the leg parts, and a support member, arranged in the first end of each leg part for attaching the leg part to a base, to which support member the leg part is pivotably attached with a mounting pin. The invention also relates to a support member for attaching the leg part of a seat to a base and a spectator stand element, which has a base and at least one folding seat according to the invention, which is attached in a detachable manner to the base.

**[0002]** Moveable spectator stand structures, which have several seats arranged in subsequent rows, are commonly used in community centres and at spectator events. In addition to seats, the spectator stand structure may include staircases, standing levels, handrails, poster stands etc. Typically such spectator stands are put up to be functional slightly before the start of the event and taken down immediately after the event has ended. The same spectator stand structure is often used in spaces of different type and size, so the spectator stand must be versatile and easily modified. For moveable spectator stand structures it is important that they take as little room as possible and are light and easy to handle when taken down and piled up into storage state. Further the installation and dismantlement work must be possible to do as quickly as possible. When put up, the spectator stands must naturally be structurally adequately strong and durable as well as safe for the users.

**[0003]** In the reference publication US 2001/0054835 A1 has been presented a folding seat suitable for moveable spectator stand structures, where the leg part of the seat has been attached pivotably to the stand, which is attached to the support structures of the spectator stand. In the use position the leg part of the seat is locked with a locking mechanism in a vertical position. When arranging into the storage position the locking mechanism is released and the leg part of the seat is tilted forward, whereby the leg part, backrest and seat level of the seat settle essentially in a horizontal position against the floor level of the spectator stand structure. In the solutions presented in the publication all the stresses directed on the seat are transferred to the support structures of the spectator stand via the stand of the seat, wherefore the stand must be made sturdy. This raises the weight of the stand as well as the material and production costs.

**[0004]** In the reference publication GB 2229089 A is presented a moveable spectator stand seat, which has two parallel vertical leg parts. The upper ends of the leg parts are connected to each other with a sculptured backrest, and in the middle parts of the leg parts there are horizontal protrusions, wherein a seat level is pivotably attached. In the bottom end of the leg part there are mounting members, wherewith the seat can be attached in a detachable manner to the support structures of the spectator stand. In this solution the leg parts of the spectator stand seat are attached immovably in their place during use of the seat and the seat is completely detached from the support structures during storing. The detached seats are collected in a stack and the stack is stored separately from the support structures of the spectator stand. Putting up and taking down the spectator stand is therefore slow and arduous.

**[0005]** The object of the invention is to bring forth a new folding seat, suitable especially for moveable spectator stand structures, a spectator stand element and a support member for a folding seat, wherewith the disadvantages and flaws of known solutions can be reduced.

**[0006]** The objects of the invention are obtained with a folding seat, a spectator stand element and a support member for a seat, which are characterized in what is presented in the independent claims. Some advantageous embodiments of the invention are presented in the dependent claims.

**[0007]** The folding seat according to the invention is suitable for use especially in moveable spectator stand structures, which have to be quickly put up into their use position and quickly taken down after the end of the event back into their storage position. The seat has at least two leg parts and at least one seat level, which is pivotably attached to the leg parts. In the first end of each leg part has been arranged a support member, with the aid of which the seat is attached to a base and where the leg part of the seat is attached pivotably with a mounting pin. The support member according to the invention has a first edge, which settles against the leg part of the seat, and a second edge, which is settled against the base. The first edge has an elongated first hole for the mounting pin of the leg part of the seat and the second edge has a locking part for receiving and locking in place the first end of the leg part. The leg part of the seat is thus attached with a mounting pin to the first edge of the support member, and the second end of the leg part is locked in place in the second edge of the support member, when the seat is in its use position. Preferably said first end of the leg part is arranged to be unlocked when the leg part is lifted upwards as much as the elongated first hole allows for.

**[0008]** In an advantageous embodiment of the seat according to the invention said locking part in the second edge is a second hole or opening, wherein the first end of the leg part can be fitted. Preferably said second hole is a through hole, whereby the first end of the leg part fitted in this hole is arranged to support itself on the base.

**[0009]** In another advantageous embodiment of the seat according to the invention the mounting pin has been attached in a detachable manner to the leg part. Preferably the mounting pin is a bolt, and the leg part has a threaded mounting hole for receiving the bolt. The bolt may have a sculptured head, whereby the bolt can be detached only with a special key, which fits the head.

**[0010]** A third advantageous embodiment of the seat according to the invention has at least one backrest, which is attached near the second end of the leg part.

The seat can preferably be folded into a storage position, where the leg parts, backrest and seat level of the seat settle in a substantially horizontal position on the base.

**[0011]** The spectator stand element according to the invention comprises a base and at least one folding seat according to the invention, which is attached in a detachable manner to the base, which seat has at least two leg parts, at least one seat level, which is pivotably attached to the leg parts, and a support member, arranged in the first end of each leg part for attaching the leg part to the base. The leg part is pivotably attached to the support member with a mounting pin. Said support member has a first edge which settles against the leg part, which first edge has an elongated first hole for a mounting pin, and a second edge which settles against the base, which second edge has a locking part for receiving and locking in place the first end of the leg part. The locking part in said second edge is preferably a second hole or opening, wherein the first end of the leg part can be fitted.

**[0012]** An advantageous embodiment of the spectator stand element according to the invention further includes a cover plate, which can be attached in a detachable manner to the support member in place of the seat, which has been detached from the spectator stand element.

**[0013]** Another advantageous embodiment of the spectator stand element according to the invention further comprises a support frame for lifting the base to a desired height level from the floor level of the spectator stand space.

**[0014]** A third advantageous embodiment of the spectator stand element according to the invention further comprises a rear edge, and said support frame has at least two horizontal beams, whereto are attached in a vertical position pillars, which pillars are attached at their upwards pointing ends to the rear edge. Preferably said support frame further has wheels for moving the spectator stand element.

**[0015]** Spectator stand elements according to the invention can be arranged in subsequent rows so that a spectator stand is formed, which rises toward the back. The front edge of the base of the spectator stand element can thus be fitted in connection with the upper surface of a support member of a spectator stand element, which is on a lower height level, whereby the support member supports the base of the spectator stand element, which is on a higher height level.

**[0016]** The invention further relates to a support member for attaching the leg part of a seat to a base. The support member according to the invention has a first edge which is settled against the leg part of the seat, which first edge has an elongated first hole for a mounting pin for the leg part, and a second edge which is settled against the base, which second edge has a locking part for receiving and locking in place the first end of the leg part. The locking part in the second edge is preferably a second hole or opening, wherein the first end of the leg part can be fitted.

**[0017]** In an advantageous embodiment of the support member according to the invention the first edge and the second edge are plate-like parts, which are at a substantially right angle to each other.

**[0018]** The support member according to the invention and the seat and spectator stand element carried out with its aid are structurally simple and their manufacturing costs are low. Savings in the manufacturing costs are thus achieved with the aid of the invention.

**[0019]** A further advantage of the invention is that it is reliable and easy to use, whereby the installation and dismantlement work is quicker.

**[0020]** In the following, the invention will be described in detail. In the description, reference is made to the appended drawings, in which

Fig. 1 shows as an example a folding seat according to the invention seen diagonally from the front, when the seat is in its use position,

Fig. 2 shows as an example a folding seat according to the invention seen from the side, when the seat is in its use position,

Fig. 3 shows as an example a folding seat according to the invention seen from the side, when the seat is in its storage position,

Fig. 4 shows as an example a spectator stand element according to the invention seen from the side, and

Fig. 5 shows as an example a manner in which the spectator stand elements according to an embodiment of the invention can be arranged in connection with each other.

**[0021]** In Figure 1 is shown as an example a perspective view of a folding seat according to the invention. The seat has two adjacent essentially parallel vertical rod-like leg parts, a first leg part 10a and a second leg part 10b, which are connected to each other with a horizontal rod-like horizontal brace 12. Between the first and second leg part there is an intermediate support 14, which is parallel to the leg parts, which support is attached at its downwards pointing first end to the horizontal brace. The upwards pointing second end of the intermediate support settles essentially on the same height level as the upwards pointing second ends of the leg parts. On the first surface of the leg parts and the intermediate support is a seat support 16. The seat support is a protruding part, which is essentially in a horizontal position and preferably 10-20 cm long, which is attached at its first end to the leg part or intermediate support in a fixed manner. Preferably the seat support, leg part and intermediate support are manufactured of the same metallic pipe profile.

**[0022]** The folding seat shown in Figure 1 has two adjacent seat levels 18 and two adjacent backrests 20. The seat levels comprise a plate-like seat plate 22, on the

opposite edges of the underside of which two parallel edge supports 24 are attached. The edge supports are sculptured metallic angle sections, one edge of which settles against the underside of the seat plate. The edge supports are attached to the ends of the seat supports 16 with pivot pins 30 so that when the edge supports are in the horizontal position according to Figure 1, their first part extends to the first side of the level defined by the leg parts 10a, 10b, and their second part extends to the second side of the level defined by the leg parts. The second ends of the edge supports are connected to each other with an elongated connecting plate 28. Plate-like limiters 32 have been attached to the surface of the leg parts 10a, 10b which point towards the intermediate support 14, and to the surfaces of the intermediate support which point towards the leg parts. The limiters have a counter surface, which settles against the surface of the edge support, when the seat levels are in the essentially horizontal position according to Figure 1. In other words the limiter functions as a support, which prevents the seat level from rotating around the pivot pin 30 downwards from the position shown in Figure 1, when the seat level is burdened with a downwards directed burden, such as the weight of a sitter. The limiters do not, however, prevent the seat level from rotating upwards from the position shown in Figure 1.

**[0023]** The seat level is attached at its edges to the first parts of the edge supports with screws, staples or some other mechanical attaching means. The backrests 20 are plate-like parts, which are attached at their first vertical edge in the vicinity of the second end of the leg part, and at their second vertical edge in the vicinity of the second end of the intermediate support. The backrests and seat plates are manufactured from some suitable, sculptable, plate-like material, such as plastic or a plate with a wooden base.

**[0024]** The folding seat according to the invention further includes one support member 40 for each leg part, with the aid of which support member the seats are attached to the base. The support member are sculptured, plate-like parts, preferably manufactured from a metallic material, which have a first side 42, which settles against the leg part of the seat, and a second side 44, which settles against the base. The leg parts of the seat are attached to the first side of the support member using a mounting pin 46, which is attached in a detachable manner to the leg part near its first end. Preferably the mounting pin is a bolt, which is rotated into the threaded mounting hole in the leg part. The bolt may have a sculptured head, whereby a special key is needed for attaching and detaching the bolt. In the first edge 42 of the support member there is an elongated, vertical first hole 43 to be penetrated by the mounting pin and in the second edge 44 of the support member there is a second hole 45 to be penetrated by the first end of the leg part.

**[0025]** In Figure 2 is shown as an example a side view of the seat shown in Figure 1. The Figure shows the seat in the use position, i.e. in the position where it is when a sitter positions himself to sit on it. In the use position the seat level 18 is settled in an essentially horizontal first extreme position according to Figure 2. The extreme position of the seat level is defined by the limiter 32, which stops the rotating movement of the seat level around the pivot pin 30, when the edge support 24 of the seat hits the limiter 32.

**[0026]** When there is no sitter on the seat, its seat level can be folded into a vertical position by rotating the seat level clockwise around the pivot pin 30. When the seat level is rotated enough, it settles into the second extreme position, where the edge supports of the seat level are essentially parallel to the leg parts 10a, 10b. The seat is thereby in a position, where it takes very little room in the depth direction. In a ready-built spectator stand structure this position enables for example the spectators to move smoothly between the seat rows. The connecting plate 28 in the second end of the edge supports functions as a counter weight, which attempts to rotate the seat level clockwise towards the second extreme position and thus reduces the force needed for folding the seat level. Preferably the mass of the connecting plate is so large that when in an unburdened state the seat level settles automatically in the above-described second extreme position. The backrest 20 of the seat functions as a limiter, which prevents the seat level from rotating further than the second extreme position.

**[0027]** In the first end of the leg part of the seat there is a support member 40, which is meant to be pivotably attached at its second edge to the base 100. Preferably the attaching is realized using mechanical attaching means, such as screws. When the seat is in the use position according to Figure 2 the first end of the leg part is fitted into the hole 45 in the second edge 44 of the support member and the mounting pin 46 is close to the lower, first end of the elongated first hole 43. The first end of the leg part 10a, 10b thus settles right onto the surface of the base 100 and all the vertical stresses onto the seat are transferred via the leg part straight to the base. Vertical stresses thus in no way stress the support member itself. Between the first hole and the walls of the mounting pin as well as between the second hole and the walls of the leg part there is only a small space, which allows the leg part to be lifted and lowered. In practise, the bond between the leg part and the support member realized with the aid of the first and second hole thus is a stiff bond, which prevents the rotation of the leg part when the first end of the leg part is fitted into the second hole 45 of the support member 40.

**[0028]** In Figure 3 is shown as an example the seat shown in Figure 2 in the storage position, where the leg parts, backrest and seat level of the seat are settled in a substantially horizontal position against the base. The seat according to the invention is moved from the use position shown in Figure 2 to the storage position shown in Figure 3 simply by setting the seat level into the second extreme position and lifting the entire seat upwards slightly. The first ends of the leg parts of the seat thus rise out

from the second holes 45 in the support members 40 and the mounting pin 46 moves to the upper, second end of the first hole 43. Thereafter the leg parts are rotated forward around the mounting pin into the storage position according to Figure 3. The seat is moved back into the use position by performing the above-mentioned procedures in a reversed order.

**[0029]** In the description presented above has been described as an example one seat according to the invention, which has two seat levels and two backrests, i.e. the seat is designed for two sitters. It is clear for someone skilled in the art that the same inventive idea can be applied also to seats intended for one sitter or to seats intended for more than two sitters. An advantageous embodiment of the invention intended for one sitter differs from the description above in that it has only one seat level/backrest pair and no intermediate supports 14. Correspondingly a seat intended for more than two sitters has several seat level/backrest pairs and intermediate supports between them.

**[0030]** In Figure 4 is shown a spectator stand element according to the invention, which has folding seats according to the invention. The spectator stand element has a horizontal base 100, whereon is supported a plate-like walking level 52. The structure of the base may be a uniform plate-like part, the size of which is essentially the size of the entire spectator stand element, or it may comprise a number of adjacent, separate panel-like parts, which are in the direction of the end edges of the spectator stand element. In the first edge of the base has been attached a plate-like front edge 54 and in its second edge has been attached a plate-like rear edge 56, which is essentially parallel to and of the same size as the front edge. The front edge and rear edge are attached to the base so that they form an essentially right angle with the base and the downward pointing surface of the front and rear edge settles essentially on the same height level as the underside of the base. On the base, right next to the rear edge have been attached support members 40, for attaching folding seats according to the invention. The spectator stand element can be manufactured in different lengths, whereby the number of seats to be attached to one element may vary. The seats are attached to the support members in a detachable manner using mounting pins (not shown in the Figure), which are fitted to pass through the first hole 43 of the support member. In the leg part 10a of the seat there is a mounting hole 47 for receiving the mounting pin. Preferably the mounting pin is a bolt, which has a sculptured head, and the mounting hole has threads for screwing in the bolt.

**[0031]** The spectator stand element according to the invention further comprises one or more separate cover plates 58, which can be attached to the spectator stand element in place of the seat, which has been detached from it. On the underside of the cover plate there are support rails 60, in the first end of which there are mounting holes 47. The cover plate is installed into place by attaching the support rails from their first end using a mounting pin to the first hole 43 of the support member 40 and by setting the second edge of the cover plate to rest on the front edge 54. The spectator stand element covered with the cover plate can function as a standing spectator stand, a walking level or a part of a staircase.

**[0032]** Under the base there are two parallel horizontal beams 62, in the second end of which has been attached a pillar 64 in a vertical position. The pillar is attached at its upward pointing end to the rear edge 56 of the spectator stand element. The beam and the pillar make up the support frame of the spectator stand element, with the aid of which frame the base is lifted to a desired height from the floor level of the spectator stand space. It is clear that the pillars of the support frame can be manufactured with different lengths, whereby the seats and walking levels settle on different height levels. A desired number of spectator stand blocks equipped with pillars of different lengths can be placed subsequently, whereby a spectator stand is formed, which rises towards the back. In Figure 4 can be seen only the support frame formed by the pillar and the beam in the first end of the spectator stand element. It is clear that there must be a structurally corresponding support frame also in the second end of the spectator stand element.

**[0033]** Wheels 66 have been attached to the underside of the beam, which wheels enable the moving of the spectator stand element by pushing it from one place to another. The beam is manufactured from a U profile of a metallic material, and the wheels have been installed inside the profile, so that just a part of them can be seen. A breaking device (not shown in the Figure) has been arranged in connection with the wheels, with which breaking device at least a part of the wheels can be locked in a non-rotatable position.

**[0034]** In Figure 5 is shown as an example a manner in which the spectator stand elements according to an embodiment of the invention can be arranged in connection with each other. The spectator stand elements have been arranged in subsequent rows so that a spectator stand is formed, which rises toward the back. In the use position of the spectator stand the rear edge of a spectator stand element on a lower height level carries the front edge of a spectator stand element on a higher height level. The first edge of the base 100 of a spectator stand element on a higher height level and the plate-like front edge 54 attached to the first edge of the base is supported on the upper surface of the support members 40 of a spectator stand element on a lower height level.

**[0035]** Some advantageous embodiments of a folding seat, a support member of a seat and a spectator stand element according to the invention have been described above. The invention is not limited to the solutions described above, but the inventive idea can be applied in numerous ways within the scope of the claims.

## Claims

1. A folding seat, which has at least two leg parts (10a, 10b), at least one seat level (18), which is pivotably attached to the leg parts, and a support member (40) arranged in the first end of each leg part for attaching the leg part to a base (100), to which support member the leg part is pivotably attached with a mounting pin (46), **characterized in that** said support member has a first edge (42) which settles against the leg part of the seat, which edge has an elongated first hole (43) for the mounting pin (46), and a second edge (44), which is settled against the base, which second edge has a locking part for receiving and locking in place the first end of the leg part.

2. The seat according to claim 1, **characterized in that** said locking part in the second edge (44) is a second hole (45) or opening, wherein the first end of the leg part (10a, 10b) can be fitted.

3. The seat according to claim 2, **characterized in that** said second hole (45) is a through hole, whereby the first end of the leg part (10a, 10b) fitted in this hole is arranged to support itself on the base (100).

4. The seat according to any of the claims 1-3, **characterized in that** said first end of the leg part (10a, 10b) is arranged to be unlocked when the leg part is lifted upwards as much as the elongated first hole (43) allows for.

5. The seat according to any of the claims 1-4, **characterized in that** the mounting pin (46) is attached in a detachable manner to the leg part (10a, 10b).

6. The seat according to any of the claims 1-5, **characterized in that** the mounting pin (46) is a bolt and the leg part has a threaded mounting hole (47) for receiving the bolt.

7. The seat according to claim 6, **characterized in that** the bolt has a sculptured head, whereby the bolt can be detached only with a special key, which fits the head.

8. The seat according to any of the claims 1-7, **characterized in that** it further has at least one backrest (20), which is attached near the second end of the leg part (10a, 10b).

9. The seat according to claim 8, **characterized in that** it can be folded into a storage position, where the leg parts (10a, 10b), backrest (20) and seat level (18) of the seat settle in a substantially horizontal position on the base (100).

10. A spectator stand element, which comprises a base (100) and at least one folding seat, which is attached in a detachable manner to the base, which seat has at least two leg parts (10a, 10b), at least one seat level (18), which is pivotably attached to the leg parts, and a support member (40) arranged in the first end of each leg part for attaching the leg part to the base (100), to which support member the leg part is pivotably attached with a mounting pin (46), **characterized in that** said support member has a first edge (42) which settles against the leg part of the seat, which edge has an elongated first hole (43) for the mounting pin (46), and a second edge (44), which settles against the base, which second edge has a locking part for receiving and locking in place the first end of the leg part.

11. The spectator stand element according to claim 10, **characterized in that** said locking part in the second edge (44) is a second hole (45) or opening, wherein the first end of the leg part (10a, 10b) can be fitted.

12. The spectator stand element according to claim 11, **characterized in that** said second hole (45) is a through hole, whereby the first end of the leg part (10a, 10b) fitted in this hole is arranged to support itself on the base (100).

13. The spectator stand element according to any of the claims 10-12, **characterized in that** it further comprises a cover plate (58), which can be attached in a detachable manner to the support member (40) in place of the seat, which has been detached from the spectator stand element.

14. The spectator stand element according to any of the claims 10-13, **characterized in that** it further comprises a support frame for lifting the base (100) to a desired height level from the floor level of the spectator stand space.

15. The spectator stand element according to claim 14, **characterized in that** it has a rear edge (56) and said support frame has at least two horizontal beams (62), whereto are attached in a vertical position pillars (64), which pillars are attached at their upwards pointing ends to the rear edge (56).

16. The spectator stand element according to claim 14 or 15, **characterized in that** said support frame has wheels (66) for moving the spectator stand element.

17. A support member for attaching a leg part (10a, 10b) of a seat to a base (100), **characterized in that** said support member has a first edge (42) which settles against the leg part of the seat, which first edge has an elongated first hole (43) for a mounting pin (46) of the leg part, and a second edge (44) which settles against the base, which second edge has a locking

part for receiving and locking in place the first end of the leg part.

**18.** The support member according to claim 17, **characterized in that** said locking part in the second edge is a second hole (45) or opening, wherein the first end of the leg part (10a, 10b) can be fitted.

**19.** The support member according to claim 18, **characterized in that** said second hole (45) is a through hole, whereby the first end of the leg part (10a, 10b) fitted in this hole is arranged to support itself on the base (100).

**20.** The support member according to any of the claims 17-19, **characterized in that** the first edge (42) and the second edge (44) are plate-like parts, which are at a substantially right angle to each other.

**Patentansprüche**

**1.** Klappsitz mit wenigstens zwei Beinteilen (10a, 10b), wenigstens einer Sitzfläche (18), die schwenkbar an den Beinteilen befestigt ist, und einem Stützteil (40), das im ersten Ende jedes Beinteils angebracht ist, um das Beinteil an einer Basis (100) zu befestigen, wobei das Beinteil am Stützteil mittels eines Befestigungsstifts (46) schwenkbar befestigt ist,
**dadurch gekennzeichnet, dass**
das Stützteil eine erste Kante (42) hat, die am Beinteil des Sitzes anliegt, wobei die Kante ein erstes Langloch (43) für den Befestigungsstift (46) hat, und eine zweite Kante (44), die an der Basis anliegt, wobei die zweite Kante ein Verriegelungsteil zum Aufnehmen und Arretieren des ersten Endes des Beinteils hat.

**2.** Sitz nach Anspruch 1, **dadurch gekennzeichnet, dass** das Verriegelungsteil in der zweiten Kante (44) ein zweites Loch (45) oder eine Öffnung ist, in das / die das erste Ende des Beinteils (10a, 10b) eingesteckt werden kann.

**3.** Sitz nach Anspruch 2, **dadurch gekennzeichnet, dass** das zweite Loch (45) eine Durchgangsbohrung ist, wobei das in dieses Loch eingesteckte erste Ende des Beinteils (10a, 10b) ausgelegt ist, um sich selbst auf der Basis (100) zu stützen.

**4.** Sitz nach einem der Ansprüche 1 bis 3, **dadurch gekennzeichnet, dass** das erste Ende des Beinteils (10a, 10b) ausgelegt ist, um gelöst zu werden, wenn das Beinteil so weit, wie es das erste Langloch (43) zulässt, nach oben gezogen wird.

**5.** Sitz nach einem der Ansprüche 1 bis 4, **dadurch gekennzeichnet, dass** der Befestigungsstift (46) abnehmbar an dem Beinteil (10a, 10b) befestigt ist.

**6.** Sitz nach einem der Ansprüche 1 bis 5, **dadurch gekennzeichnet, dass** der Befestigungsstift (46) eine Schraube ist, und dass das Beinteil ein mit Gewinde versehenes Befestigungsloch (47) hat, um die Schraube aufzunehmen.

**7.** Sitz nach Anspruch 6, **dadurch gekennzeichnet, dass** die Schraube einen geformten Kopf hat, so dass die Schraube nur mit einem speziellen Schlüssel, der für den Kopf passt, entfernt werden kann.

**8.** Sitz nach einem der Ansprüche 1 bis 7, **dadurch gekennzeichnet, dass** er des Weiteren wenigstens eine Lehne (20) hat, die nahe dem zweiten Ende des Beinteils (10a, 10b) befestigt ist.

**9.** Sitz nach Anspruch 8, **dadurch gekennzeichnet, dass** er in eine Lagerposition geklappt werden kann, in der die Beinteile (10a, 10b), die Lehne (20) und die Sitzfläche (18) des Sitzes in im Wesentlichen horizontaler Position auf der Basis (100) ruhen.

**10.** Zuschauertribünenelement, das eine Basis (100) und wenigstens einen Klappsitz aufweist, der abnehmbar an der Basis befestigt ist, wobei der Sitz wenigstens zwei Beinteile (10a, 10b), wenigstens eine Sitzfläche (18), die schwenkbar an den Beinteilen befestigt ist, und ein Stützteil (40) hat, das im ersten Ende jedes Beinteils angebracht ist, um das Beinteil an der Basis (100) zu befestigen, wobei das Beinteil am Stützteil mittels eines Befestigungsstifts (46) schwenkbar befestigt ist, **dadurch gekennzeichnet, dass**
das Stützteil eine erste Kante (42) hat, die am Beinteil des Sitzes anliegt, wobei die Kante ein erstes Langloch (43) für den Befestigungsstift (46) hat, und eine zweite Kante (44), die an der Basis anliegt, wobei die zweite Kante ein Verriegelungsteil zum Aufnehmen und Arretieren des ersten Endes des Beinteils hat.

**11.** Zuschauertribünenelement nach Anspruch 10, **dadurch gekennzeichnet, dass** das Verriegelungsteil in der zweiten Kante (44) ein zweites Loch (45) oder eine Öffnung ist, in das / die das erste Ende des Beinteils (10a, 10b) eingesteckt werden kann.

**12.** Zuschauertribünenelement nach Anspruch 11, **dadurch gekennzeichnet, dass** das zweite Loch (45) eine Durchgangsbohrung ist, wobei das in dieses Loch eingesteckte erste Ende des Beinteils (10a, 10b) ausgelegt ist, um sich selbst auf der Basis (100) zu stützen.

**13.** Zuschauertribünenelement nach einem der Ansprüche 10 bis 12, **dadurch gekennzeichnet, dass** es

des Weiteren eine Abdeckplatte (58) aufweist, die anstelle des Sitzes, der vom Zuschauertribünenelement abgenommen worden ist, abnehmbar am Stützteil (40) befestigt werden kann.

**14.** Zuschauertribünenelement nach einem der Ansprüche 10 bis 13, **dadurch gekennzeichnet, dass** es des Weiteren einen Stützrahmen zum Anheben der Basis (100) auf eine gewünschte Höhe vom Boden des Zuschauertribünenraums aufweist.

**15.** Zuschauertribünenelement nach Anspruch 14, **dadurch gekennzeichnet, dass** es eine Hinterkante (56) hat, und dass der Stützrahmen wenigstens zwei horizontale Träger (62) aufweist, an denen Pfosten (64) in vertikaler Position befestigt sind, wobei die Pfosten an ihren nach oben zeigenden Enden an der Hinterkante (56) befestigt sind.

**16.** Zuschauertribünenelement nach Anspruch 14 oder 15, **dadurch gekennzeichnet, dass** der Stützrahmen Räder (66) zum Bewegen des Zuschauertribünenelements hat.

**17.** Stützteil zum Befestigen eines Beinteils (10a, 10b) eines Sitzes an einer Basis (100), **dadurch gekennzeichnet, dass** das Stützteil eine erste Kante (42) hat, die am Beinteil des Sitzes anliegt, wobei die erste Kante ein erstes Langloch (43) für einen Befestigungsstift (46) des Beinteils hat, und eine zweite Kante (44), die an der Basis anliegt, wobei die zweite Kante ein Verriegelungsteil zum Aufnehmen und Arretieren des ersten Endes des Beinteils hat.

**18.** Stützteil nach Anspruch 17, **dadurch gekennzeichnet, dass** das Verriegelungsteil in der zweiten Kante ein zweites Loch (45) oder eine Öffnung ist, in das / die das erste Ende des Beinteils (10a, 10b) eingesteckt werden kann.

**19.** Stützteil nach Anspruch 18, **dadurch gekennzeichnet, dass** das zweite Loch (45) eine Durchgangsbohrung ist, wobei das in dieses Loch eingesteckte erste Ende des Beinteils (10a, 10b) ausgelegt ist, um sich selbst auf der Basis (100) zu stützen.

**20.** Stützteil nach einem der Ansprüche 17 bis 19, **dadurch gekennzeichnet, dass** die erste Kante (42) und die zweite Kante (44) plattenartige Teile sind, die im Wesentlichen rechtwinklig zueinander sind.

**Revendications**

**1.** Siège pliant, lequel comporte au moins deux parties servant de pieds (10a, 10b), au moins un plateau de siège (18), lequel est fixé à pivotement aux parties servant de pied, et un élément de support (40) agencé dans la première extrémité de chaque partie servant de pied en vue de fixer la partie servant de pied à une base (100) à laquelle l'élément de support de la partie servant de pied est fixé à pivotement avec une broche de fixation (46), **caractérisé en ce que** ledit élément de support comporte un premier côté (42) qui se positionne contre la partie servant de pied du siège, lequel côté comporte un premier trou de forme allongée (43) destiné à la broche de fixation (46), et un second côté (44), qui est positionné contre la base, lequel second côté comporte une partie de verrouillage pour recevoir et verrouiller en place la première extrémité de la partie servant de pied.

**2.** Siège selon la revendication 1, **caractérisé en ce que** ladite partie de verrouillage dans le second côté (44) est un second trou (45) ou d'une ouverture, dans lequel (laquelle) la première extrémité de la partie servant de pied (10a, 10b) peut être ajustée.

**3.** Siège selon la revendication 2, **caractérisé en ce que** ledit second trou (45) est constitué d'un trou de passage, de sorte que la première extrémité de la partie servant de pied (10a, 10b) ajustée dans ce trou est agencée afin de se supporter elle-même sur la base (100).

**4.** Siège selon l'une quelconque des revendications 1 à 3, **caractérisé en ce que** ladite première extrémité de la partie servant de pied (10a, 10b) est agencée en vue d'être déverrouillée lorsque la partie servant de pied est levée vers le haut autant que le premier trou de forme allongée (43) le permette.

**5.** Siège selon l'une quelconque des revendications 1 à 4, **caractérisé en ce que** la broche de fixation (46) est fixée d'une façon amovible à la partie servant de pied (10a, 10b).

**6.** Siège selon l'une quelconque des revendications 1 à 5, **caractérisé en ce que** la broche de fixation (46) est un boulon et **en ce que** la partie servant de pied présente un trou de fixation taraudé (47) destiné à recevoir le boulon.

**7.** Siège selon la revendication 6, **caractérisé en ce que** le boulon présente une tête sculptée, de telle sorte que le boulon puisse être démonté seulement avec une clé spéciale, laquelle s'adapte à la tête.

**8.** Siège selon l'une quelconque des revendications 1 à 7, **caractérisé en ce qu'**il comporte de plus au moins un dossier (20), lequel est fixé à proximité de la seconde extrémité de la partie servant de pied (10a, 10b).

**9.** Siège selon la revendication 8, **caractérisé en ce qu'**il peut être plié dans une position de stockage,

dans laquelle les parties servant de pied (10a, 10b), le dossier (20) et le plateau de siège (18) du siège se disposent dans une position essentiellement horizontale sur la base (100).

**10.** Elément de tribune de spectateurs, lequel comprend une base (100) et au moins un siège pliant, lequel est fixé d'une façon amovible à la base, lequel siège comporte au moins deux parties servant de pied (10a, 10b), au moins un plateau de siège (18), qui est fixé à pivotement aux parties servant de pied, et un élément de support (40) agencé dans la première extrémité de chaque partie servant de pied en vue de fixer la partie servant de pied à la base (100) à laquelle l'élément de support de la partie servant de pied est fixé à pivotement avec une broche de fixation (46) **caractérisé en ce que** ledit élément de support comporte un premier côté (42) qui se place contre la partie servant de pied du siège, lequel côté comporte un premier trou de forme allongée (43) destiné à la broche de fixation (46), et un second côté (44) qui se place contre la base, lequel second côté comporte une partie de verrouillage destinée à recevoir et à verrouiller en place la première extrémité de la partie servant de pied.

**11.** Elément de tribune de spectateurs selon la revendication 10, **caractérisé en ce que** ladite partie de verrouillage formée dans le second côté (44) est un second trou (45) ou une ouverture, dans lequel (laquelle) la première extrémité de la partie servant de pied (10a, 10b) peut être ajustée.

**12.** Elément de tribune de spectateurs selon la revendication 11, **caractérisé en ce que** le second trou (45) est un trou de passage, de telle sorte que la première extrémité de la partie servant de pied (10a, 10b) ajustée dans ce trou est disposée de façon à se supporter elle-même sur la base (100).

**13.** Elément de tribune de spectateurs selon l'une quelconque des revendications 10 à 12, **caractérisé en ce qu'**il comporte, de plus, une plaque de couverture (58), laquelle peut être fixée d'une façon amovible à l'élément de support (40) à la place du siège, lequel a été détaché de l'élément de tribune de spectateurs.

**14.** Elément de tribune de spectateurs selon l'une quelconque des revendications 10 à 13, **caractérisé en ce qu'**il comprend, de plus, une structure de support permettant de relever la base (100) jusqu'à un niveau de hauteur souhaité à partir du niveau du sol de l'espace de la tribune de spectateurs.

**15.** Elément de tribune de spectateurs selon la revendication 14, **caractérisé en ce qu'**il comporte un côté arrière (56) et **en ce que** ladite structure de support comporte au moins deux montants horizontaux (62) auxquels sont fixés dans une position verticale des piliers (64), lesquels piliers sont fixés au niveau de leurs extrémités dirigées vers le haut au côté arrière (56).

**16.** Elément de tribune de spectateurs selon la revendication 14 ou 15, **caractérisé en ce que** ladite structure de support comporte des roues (66) pour déplacer l'élément de tribune de spectateurs.

**17.** Elément de support pour fixer une partie servant de pied (10a, 10b) d'un siège à une base (100), **caractérisé en ce que** ledit élément de support comporte un premier côté (42) qui se place contre la partie servant de pied du siège, lequel premier côté comporte un premier trou de forme allongée (43) destiné à une broche de fixation (46) de la partie servant de pied, et un second côté (44) qui se place contre la base, lequel second côté comporte une partie de verrouillage destinée à recevoir et à verrouiller en place la première extrémité de la partie servant de pied.

**18.** Elément de support selon la revendication 17, **caractérisé en ce que** ladite partie de verrouillage formée dans le second côté est constituée d'un second trou (45) ou d'une ouverture, dans lequel (laquelle) la première extrémité de la partie servant de pied (10a, 10b) peut être ajustée.

**19.** Elément de support selon la revendication 18, **caractérisé en ce que** ledit second trou (45) est un trou de passage, de telle sorte que la première extrémité de la partie servant de pied (10a, 10b) ajustée dans ce trou est agencée en vue de se supporter elle-même sur la base (100).

**20.** Elément de support selon l'une quelconque des revendications 17 à 19, **caractérisé en ce que** le premier côté (42) et le second côté (44) sont des parties de type plaque, lesquelles sont placées essentiellement de façon perpendiculaire l'une à l'autre.

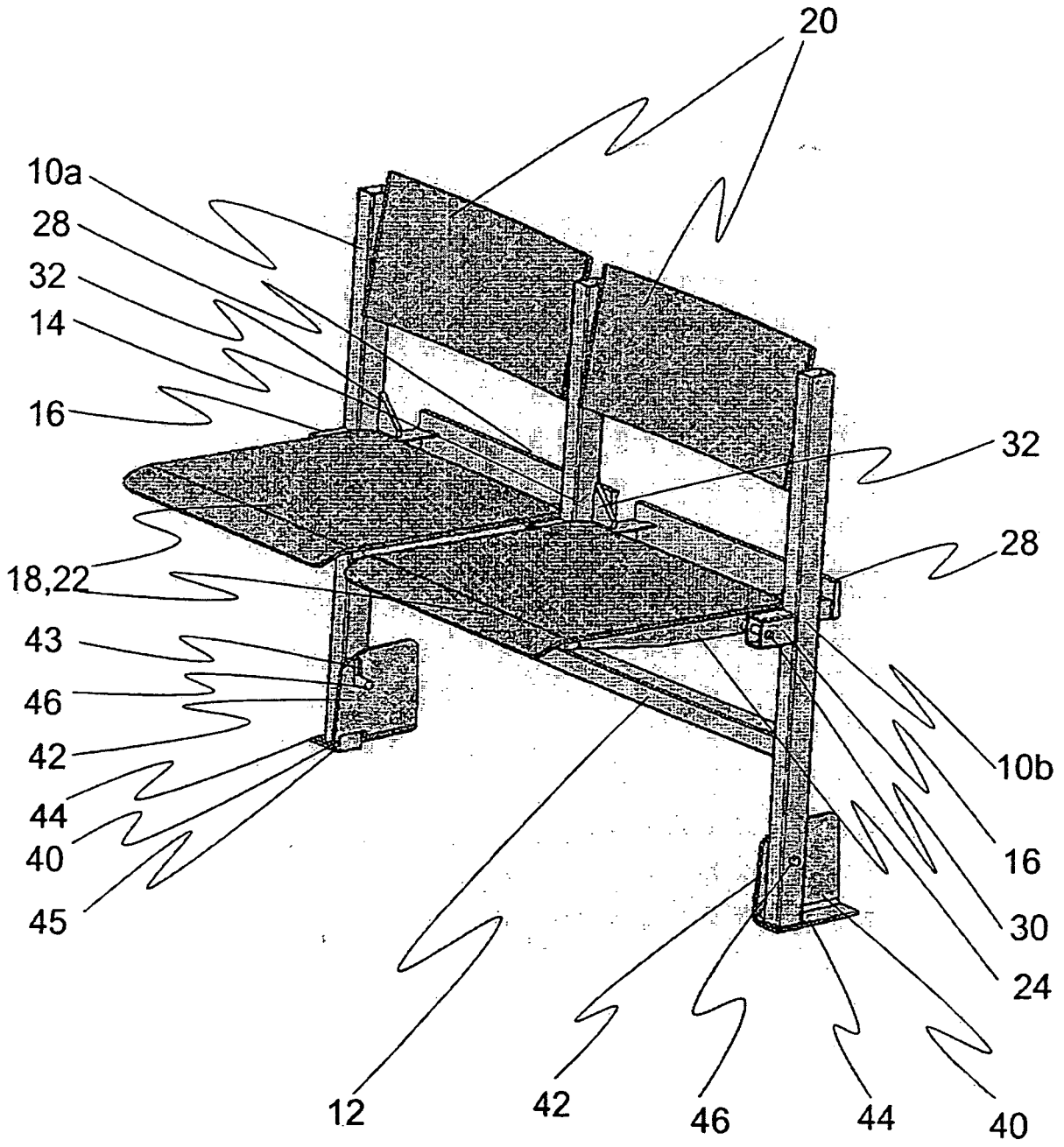

20
10a
28
32
14
16
32
28
18,22
43
46
42
44
40
45
10b
16
30
24
12
42
46
44
40

Fig. 1

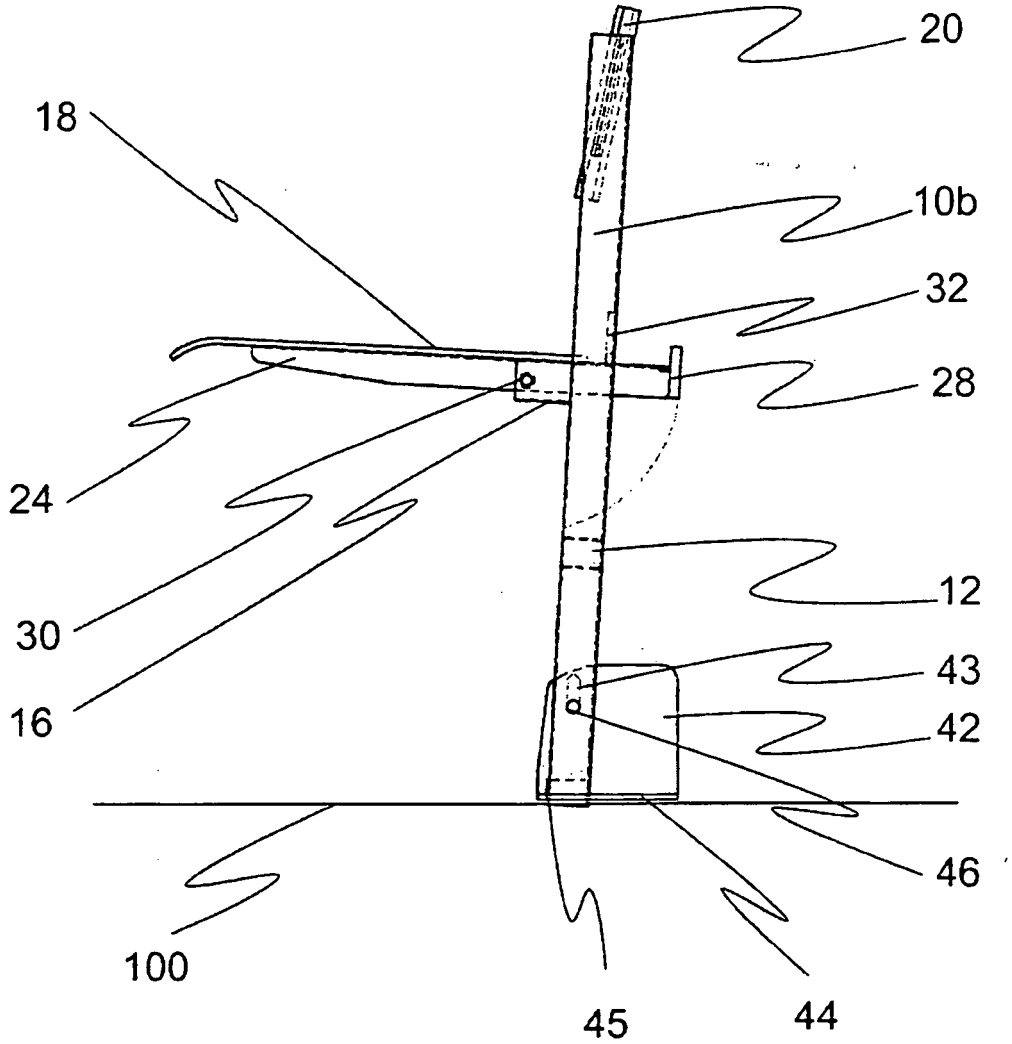

20
18
10b
32
28
24
12
30
43
16
42
46
100
45
44

Fig. 2

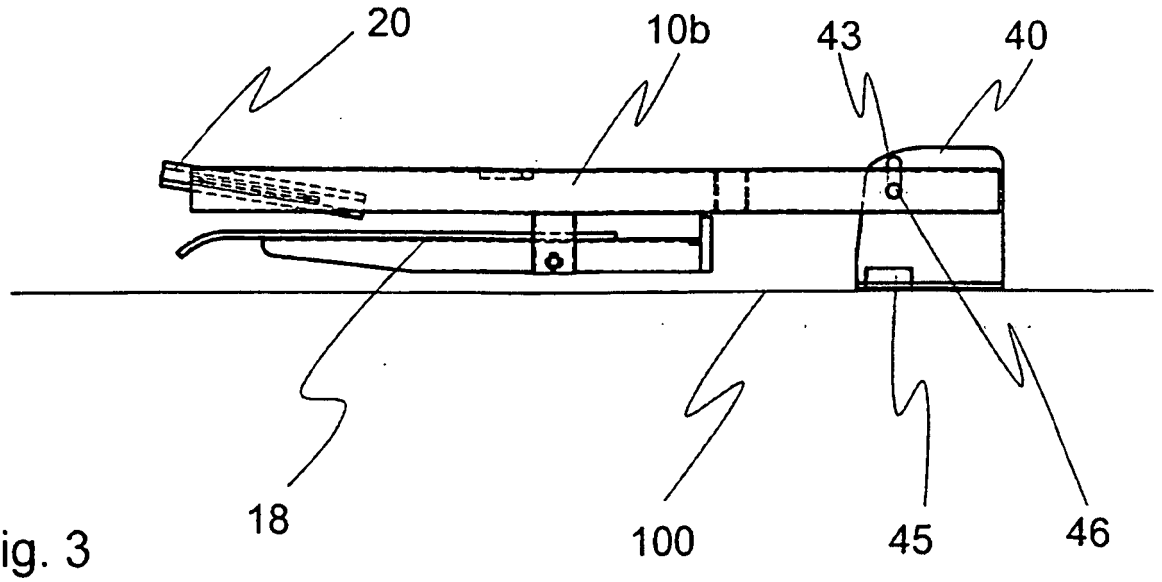

20
10b
43
40
18
100
45
46

Fig. 3

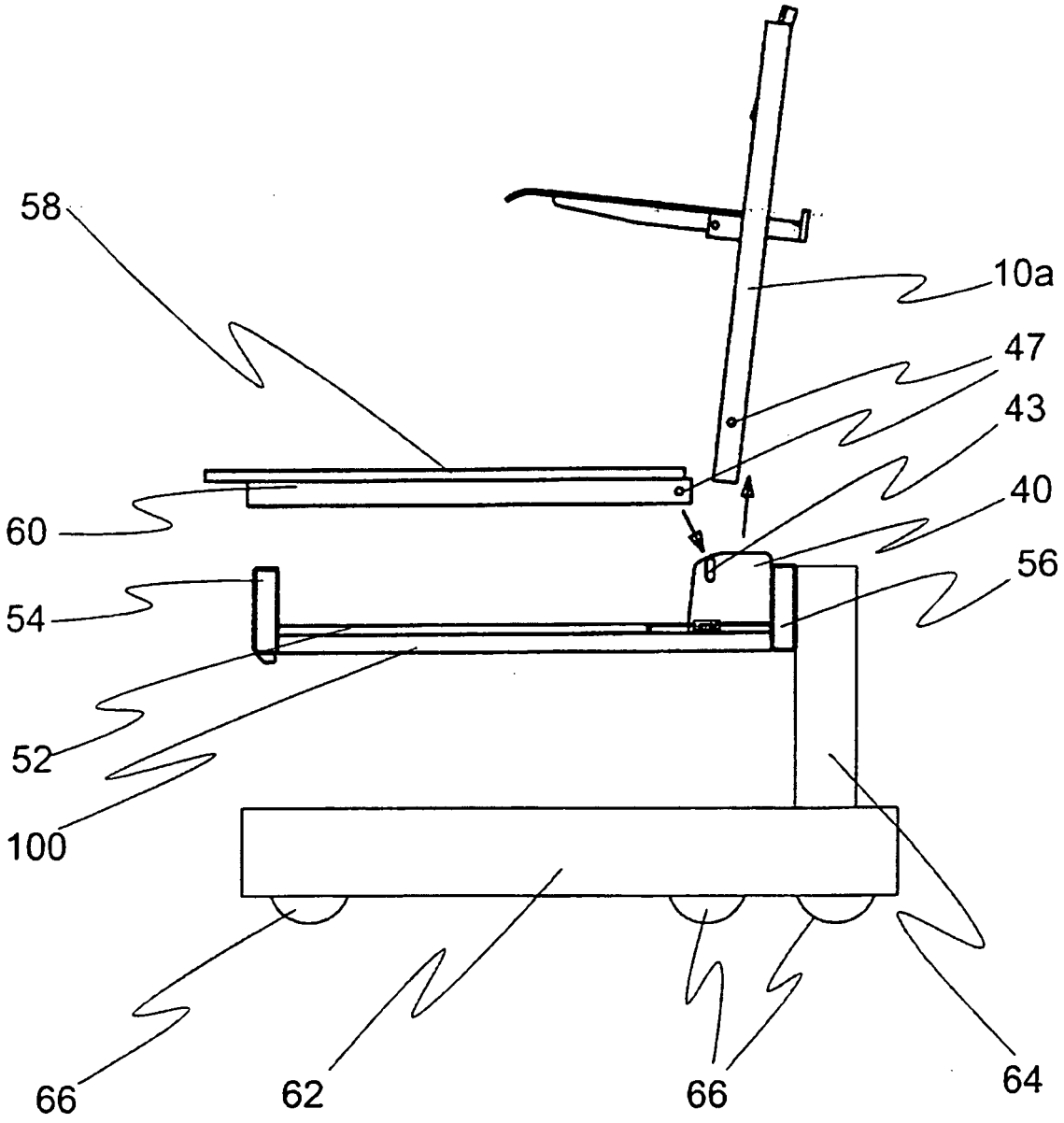



Fig. 4

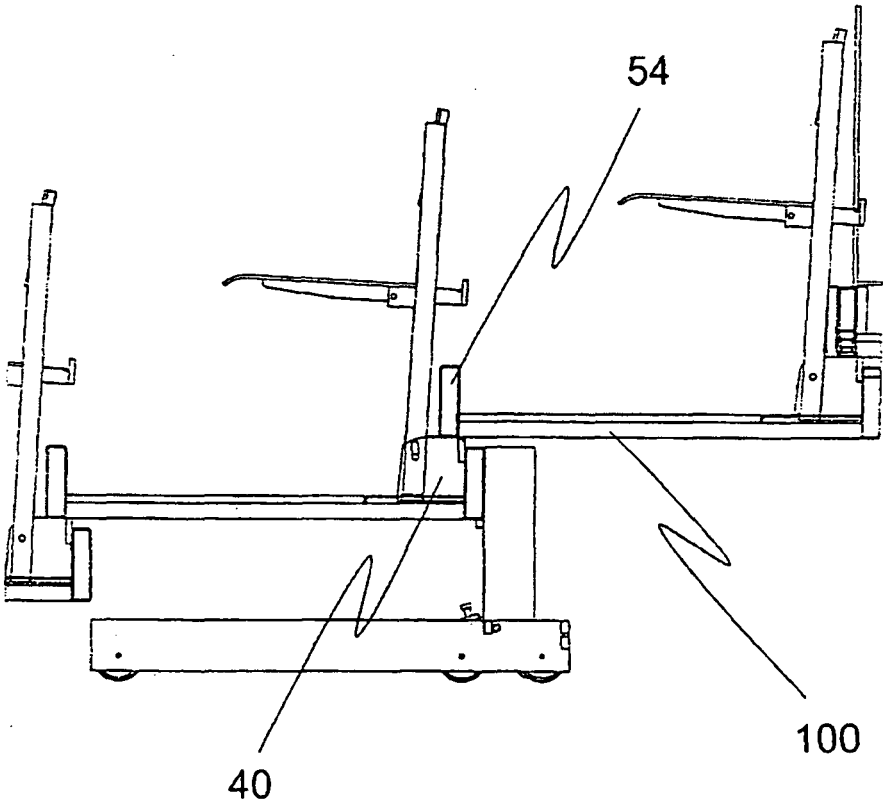



Fig. 5

## REFERENCES CITED IN THE DESCRIPTION

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