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

(11) EP 1 857 020 B1

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
28.07.2010 Bulletin 2010/30

(51) Int Cl.:
A47C 9/06 *(2006.01)* ***A47K 3/28*** *(2006.01)*

(21) Application number: **07009209.3**

(22) Date of filing: **08.05.2007**

(54) **A collapsible seating device with an enlargeable seating surface, as well as a shower or bathing cabinet including such a seating device**

Zusammenklappbare Sitzvorrichtung mit einer vergrößerbaren Sitzfläche sowie Dusch- oder Badekabine mit einer derartigen Sitzvorrichtung

Siège pliable doté d'une surface d'assise pouvant être agrandie, et douche ou cabine de bain dotée d'un tel siège

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

(30) Priority: **17.05.2006 SE 0601106**

(43) Date of publication of application:
21.11.2007 Bulletin 2007/47

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EP 1 857 020 B1

Printed by Jouve, 75001 PARIS (FR)

Description

TECHNICAL FIELD

[0001] The present invention relates to a collapsible seating device disposed on a wall, comprising a first seating surface which, by means of a fitting fixed in a wall, is pivotal between two different positions, a raised substantially vertical position and a lowered substantially horizontal position cf e.g. US-A-2 813 276.

[0002] The present invention also relates to use of such a seating device in combination with a shower or bathing cabinet comprising two opposing walls, a first raisable and lowerable seating surface and a back rest.

BACKGROUND ART

[0003] In confined spaces it is often almost impossible, for lack of space, to place a conventional chair, for the simple reason that the chair takes up the greater part of the space available, with the result that people in the space will have extremely slight room to move.

[0004] Examples of confined spaces might be railway carriages with narrow corridors, halls, etc. Here, use is often made of chairs with raisable and lowerable seats. The collapsible seats take up little outward space in their raised position, and by such means take up little space when the seats are raised, while in their lowered position they offer a satisfactory seating surface for an occupant sitting 'bolt upright'. These collapsible or pivotal seats are often mounted by means of a fitting on a wall. The drawback inherent in these collapsible chair seats is that they normally completely lack or only display a fixed back rest which is set in a single fixed angled position.

[0005] There are available on the market today collapsible chairs which can be mounted to a wall which for example, is used in a small shower space or sauna space, in a so-called shower or bathing cabinet. These chairs have a chair seat which, in a raised position, is disposed substantially vertically along the wall and takes up little room in the space available. In those cases when the chair seat is lowered, it creates a seating surface which is only intended for one person. If the person in question wishes, for example, to wash their feet carefully, the seating surface is not large enough for the person to be able to put up the heel of the foot on the outer edge of the seating surface because of the small size of the seating surface. The person washing must bend almost double to be able to get at their feet for washing, which may be difficult in a confined space, and extremely difficult for elderly people with restricted mobility.

[0006] In those cases when a non-bulky collapsible seat is used, for example in a shower cabinet of more modem type, which serves the function of a shower, sauna, Turkish bath etc., there is a need to have more seating places than one in order that more than one person will be able to use the shower cabinet at the same time, for example in taking a sauna bath. Since the space in these shower or sauna cabinets is small, there is, for reasons of space, only room for one seating place. If the seating place consists of a chair with a collapsible seat, the problem occurs that the seating surface that is available is small and only one person at a time can use the seating surface of the chair.

[0007] There are also shower seats in shower cabinets which consist of a chair of plastic which is of one piece manufacture. These chairs are fixedly mounted in a corner of the shower cabinet and take up considerable space, nor can they be collapsed.

PROBLEM STRUCTURE

[0008] The present invention has for its object to design the collapsible seating device described by way of introduction so that it obviates the drawbacks inherent in the prior art technology. In particular, the present invention has for its object to design the collapsible seating device so that a person sitting on the seating device can optionally choose to increase the size of the seating surface, for example from being a single seater for one person to, for example, a double seater for two people.

[0009] The present invention further has for its object to design the shower or bathing cabinet described by way of introduction so that it obviates the drawbacks inherent in the prior art technology. In particular, the present invention has for its object to design the shower or bathing cabinet so that the person showering or bathing can optionally choose to increase the size of the seating surface.

SOLUTION

[0010] The objects forming the basis of the present invention will be attained if the collapsible seating device described by way of introduction is characterised in that the seating device has a back rest which, in a raised position, is inclined against the wall and, in a lowered position, is substantially horizontal and disposed to constitute a second seating surface for enlarging the first.

[0011] The objects forming the basis of the present invention will be attained if the shower or bathing cabinet described by way of introduction is characterised in that, with the first seating surface lowered to its seating position, the back rest may be lowered to form a second seating surface.

BRIEF DESCRIPTION OF THE ACCOMPANYING DRAWINGS

[0012] The present invention will now be described in greater detail hereinbelow, with reference to the accompanying Drawings. In the accompanying Drawings:

Fig. 1 is an isometric view of the device according to the present invention with a first seating surface in a lowered position;

Fig. 2 is a straight front elevation of the device according to the present invention, according to Fig. 1;

Fig. 3 is a sectional view of the device according to the present invention taken along the line A-A in Fig. 2;

Fig. 4 is a straight side elevation of the device according to the present invention with the first seating surface and the back rest in their raised positions and also mounted in a shower or bathing cabinet with two opposing walls;

Fig. 5 is a straight side elevation of the device according to the present invention according to Fig. 4, with the first seating surface and the back rest in their lowered positions;

Fig. 6 is an isometric view of the device according to the present invention, according to an alternative embodiment; and

Fig. 7 is a straight side elevation of the device according to the present invention, according to another alternative embodiment.

DESCRIPTION OF PREFERRED EMBODIMENT

[0013] In the following description, directional indications will be given such as forward, backward, upwards, downwards, laterally etc. These directional indications relate to directions for a person sitting on a collapsible seating device, the back of the person facing towards the back rest.

[0014] Referring to the Drawings, Figs. 1 to 3 show a collapsible seating device 1 disposed on a wall 2, e.g. in a shower or bathing cabinet. The seating device 1 has a first seating surface 3 which, by means of a fitting 4 secured in a wall 2, is pivotal between two different positions, a raised position and a lowered position. In the raised position, the first seating surface 3 is disposed substantially vertically and in the lowered position, the first seating surface 3 is disposed substantially horizontally.

[0015] The seating device 1 is further provided with a back rest 5 which also has a raised position and a lowered position. In the raised position, the back rest 5 is inclined against the wall 2 and in the lowered position, the back rest 5 is disposed substantially horizontally. In the lowered position, the back rest 5 is disposed to constitute a second seating surface for enlarging the first seating surface 3.

[0016] When the collapsible seating device 1 is not in use, both the first seating surface 3 and the back rest 5 are disposed in their raised positions, as shown in Fig. 4.

[0017] The fitting 4 has a first shaft 6 about which the first seating surface 3 is pivotal, between the raised position and the lowered position. The fitting 4 includes a locking device (not shown) which acts on the first seating surface 3 so that it remains in its raised position or alternatively in its lowered position, depending on which position the user has set the first seating surface 3 to assume.

[0018] The back rest 5 is pivotal about a second shaft 7 disposed a distance from the first shaft 6. The second shaft 7 is disposed in front of the first shaft 6 in the lowered position of the first seating surface 3, and the second shaft 7 is further united with the first seating surface 3. The first seating surface 3 is preferably secured on the first shaft 6 on projections (not shown) which extend out from the shaft 6 and on which the first seating surface 3 is disposed.

[0019] In that case when the first seating surface 3 and the back rest 5 are in their raised positions, the second shaft 7 is disposed straight above the first shaft 6.

[0020] In that case when the first seating surface 3 is in its lowered position and the back rest 5 is in its raised position, the back rest 5 has its point of gravity behind the second shaft 7, which automatically influences the back rest 5 to remain in this position until a user wishes to enlarge the seating surface and manually lowers the back rest 5.

[0021] A support means 8 is disposed at the second seating surface 5 for supporting an upper/outer end region 9 of the back rest 5, which is shown in Figs. 4 and 5. The support means 8 may, in a first embodiment, consist of one or more projections 10 disposed on an opposing wall 11. The purpose of the projections 10 is to realise a support for the second seating surface 5 when a heavy load is applied on the back rest 5, for example an upper end region 9, in the lowered position. An upper surface 12 on the projection 10 is disposed on the same level above the floor surface as a front surface 13 on the back rest 5, in its lowered position, in order to realise a substantially planar and horizontal second seating surface 5. The rear surface 14 of the back rest in the raised position constitutes the second seating surface 5 in the lowered position.

[0022] In that case when the fitting is designed to cater for heavy loadings and in a second embodiment, the support means 8 may consist of an upper and front edge 15 on the first seating surface 3.

[0023] The back rest 5 is of L-shaped configuration, which is shown in Fig. 3, the second shaft 7 being disposed in a projection 16 included in the foot of the L, on a lower portion 17 of the back rest 5. The second shaft 7 is preferably formed from a rod material which is secured in bores on both sides of an opening 18 in the first seating surface 3.

[0024] The distance from the second shaft 7 to the front surface 13 of the back rest 5 is at least the distance from the second shaft 7 to the upper side 24 of the first seating surface 3, so as to create the geometry for collapsing the back rest 5, in which event the back rest 5 can lie planar against the upper side 24 of the first seating surface 3.

[0025] The opening 18 is disposed in an inner portion

19 of the first seating surface 3, in which the lower portion 17 of the back rest 5 is disposed, the second shaft 7 extending through the opening 18. The first seating surface 3 is, in this embodiment, planar and U-shaped in its outer configuration and the back rest 5 is of substantially rectangular shape, when observed straight from in front. The outer configuration of the first seating surface 3 and the back reset 5 may also assume other forms, such as tapering outwards or inwards, displaying rounded corners etc.

[0026] The first seating surface 3 and the back rest 5 in its entirety may, depending on what the user perceives as aesthetically pleasing, be produced from various materials such as, for example, wood, plastic etc. The first seating surface 3 and the back rest 5 may be produced from panel-material such as, for example, solid wood, or of ribs disposed on a frame, in which event the ribs extend along or alternatively across the seating surfaces.

[0027] Figs. 4 and 5 show two opposing walls 2 and 11 disposed in a shower or bathing cabinet. In the shower or bathing cabinet, a first raisable or lowerable seating surface 3 and a back rest 5 are disposed. In the case when the first seating surface 3 is lowered to a seating position, the back rest 5 may be lowered so as to form a second seating surface.

[0028] In its lowered position, the back rest 5 extends between the two opposing walls 2 and 11. That wall 11 which, in the lowered position of the back rest 5, is located at the upper/outer end region 9 of the back rest, displays support means 10 for cooperation therewith.

DESCRIPTION OF ALTERNATIVE EMBODIMENTS

[0029] A number of alternative embodiments will be described hereinbelow, where those distinguishing features that are common to the above-described embodiments have been omitted.

[0030] In one alternative embodiment, the fitting 4 with the first seating surface 3 and the back rest 5 is disposed on a support upstanding from the floor. A locking device is disposed in the fitting 4 and locks the back rest 5 in the raised position so as to realise a comfortable slope of the back rest 5 for a person sitting on the seating device 1.

[0031] In one alternative embodiment, the first seating surface 3 and the back rest 5 are substantially 'reversed' in design compared with the above-described preferred embodiment, in this case the back rest 5 having U-shape when observed straight from the front and the first seating surface 3 being of planar design with recesses in its rear corner regions for the U-shaped back rest 5.

[0032] Fig. 6 shows an alternative embodiment of the subject matter of the present invention with a support means 8 which, in this embodiment, consists of a tongue 20 collapsible about a shaft 21. In this case, the tongue 20 acts as a support strut for the back rest 5 when this is in its lowered position. The tongue 20 is pivotal from a storage position in the raised position of the back rest 5 in substantially the same plane as the back rest 5, to a position of use substantially at right angles to the back rest 5. In the position of use, the tongue 20 comes into contact with the floor in the shower cabinet. The tongue 20 is pivotally disposed about the shaft 21 in the upper end region 9 of the back rest. The tongue 20 is of a length that realises a substantially horizontal second seating surface 5.

[0033] Fig. 7 shows another alternative embodiment of the subject matter of the present invention in which the back rest 5 is of substantially planar and rectangular form and likewise the first seating surface 3. The back rest 5 is disposed on the first seating surface 3 by means of L-shaped fittings 22 which are disposed on the longitudinal edges 23 of the back rest. The one end of the L-shaped fitting is fixed on the lower portion 17 of the back rest and the other end of the L-shaped fitting is pivotally disposed on the second shaft 7 in the first seating surface 3. The first seating surface 3 extends out behind the back rest 5 in towards the wall 2. The L-shaped fittings 22 are designed in analogy with the L-shape of the back rest 5 for realising a geometry for lowering the back rest 5.

Claims

1. A collapsible seating device disposed on a wall, comprising a first seating surface (3) which, by means of a fitting (4) fixed in a wall (2), is pivotable about a first shaft (6) between two different positions, a raised substantially vertical position and a lowered substantially horizontal position, **characterised in that** the seating device (1) has a back rest (5) pivotable about a second shaft (7) disposed a distance from the first shaft (6) and united with the first seating surface (3), said back rest, in a raised position, being inclined against the wall (2) and, in a lowered position, being substantially horizontal to constitute a second seating surface (5) for enlarging the first surface (3), whereby in the lowered position the second seating surface (5) co-operates with support means (8, 10) for supporting the free, upper end region (9) of the back rest.

2. The collapsible seating device as claimed in Claim 1, **characterised in that,** when the first seating surface (3) is in its lowered position and the back rest (5) is in its raised position, the back rest (5) has its point of gravity located closer to the wall (2) than the second shaft (7).

3. The collapsible seating device as claimed in any of Claims 1 to 2, **characterised in that** the back rest (5) is of L-shaped configuration, the second shaft (7) being disposed in a projection (16) included in the foot of the L on a lower portion (17) of the back rest (5).

4. The collapsible seating device as claimed in any of Claims 1 to 3, **characterised in that** the first seating surface (3) has, in its inner portion (19), an opening (18) in which the lower portion (17) of the back rest is disposed and through which the second shaft (7) extends.

5. Use of a seating device as claimed in any of claims 1 to 4 in combination with a shower or bathing cabinet comprising two opposing walls (2, 11) **characterised in that** the wall (11) opposing the wall (2) on which the fitting (4) is located has support means (10) for supporting the upper end region of the back rest (5) when the back rest is lowered.

6. Use of a seating device as claimed in claim 5, **characterized in that** with the first seating surface (3) lowered to a seating position, the back rest (5) is lowerable to form a second seating surface.

Patentansprüche

1. zusammenklappbare, an eine Wand anzuordnende Sitzvorrichtung, die eine erste Sitzfläche (3) umfasst, welche mithilfe einer Verbindungsarmatur (4) an einer Wand (2) befestigt ist, und die um eine erste welle (6) zwischen zwei verschiedenen Positionen lenkbar ist - in eine hochgestellte, im Wesentlichen vertikale Position und in eine abgesenkte, im Wesentlichen horizontale Position -, **dadurch gekennzeichnet, dass** die Sitzvorrichtung (1) eine Rückenlehne (5) aufweist, die um eine zweite Welle (7) lenkbar ist, welche zur ersten Welle (6) beabstandet und in der ersten Sitzfläche (3) eingebracht ist; die Rükkenlehne ist - in einer hochgestellten Position - gegen die Wand (2) schräg gelagert und - in einer abgesenkten Position - wird sie im wesentlichen horizontal angeordnet, um eine zweite Sitzfläche (5) zu bilden, um damit die erste Sitzfläche (3) zu vergrößern, wobei in der abgesenkten Position die zweite Sitzfläche (5) mit Trägerelementen (8, 10) zusammenwirkt, um den oberen freien Endbereich (9) der Rückenlehne (9) tragend zu unterstützen.

2. Zusammenklappbare Sitzvorrichtung gemäß Anspruch 1, **dadurch gekennzeichnet, dass** - wenn sich die erste Sitzfläche (3) in deren abgesenkten Position befindet und die Rückenlehne (5) in deren hochgestellten Position ist - der Schwerkraftpunkt der Rückenlehne (5) näher zur Wand (2) angeordnet ist als der der zweiten Welle (7).

3. Zusammenklappbare Sitzvorrichtung gemäß einem beliebigen der Ansprüche 1 bis 2, **dadurch gekennzeichnet, dass** die Rücklehne (5) eine L-förmige Konfiguration aufweist, wobei sich die zweite Welle (7) in einem Vorsprung (16) befindet, der in dem L-Fuß im unteren Abschnitt (17) der Rückenlehne (5) eingebracht ist.

4. Zusammenklappbare Sitzvorrichtung gemäß einem beliebigen der Ansprüche 1 bis 3, **dadurch gekennzeichnet, dass** die erste Sitzfläche (3) in deren Innenteil (19) eine Öffnung (18) aufweist, in welche der untere Abschnitt (17) der Rückenlehne (5) angeordnet wird und durch welche sich die zweite Welle (7) erstrecken kann.

5. Anwendung einer Sitzvorrichtung gemäß einem beliebigen der Ansprüche 1 bis 4 in Verbindung mit einer Dusch- oder Badekabine mit zwei gegenüberliegenden Wänden (2, 11), **dadurch gekennzeichnet, dass** die Wand (11) gegenüber zur Wand (2), auf der sich die Verbindungsarmatur (4) befindet, Trägerelemente (10) aufweist, um den oberen freien Endbereich (9) der Rückenlehne (5) zu tragen, wenn die Rückenlehne abgesenkt worden ist.

6. Anwendung der Sitzvorrichtung gemäß Anspruch 5, **dadurch gekennzeichnet, dass** mit dem Absenken der ersten Sitzfläche (3) in eine Sitzposition auch die Rükkenlehne (5) absenkbar ist, um eine zweite Sitzfläche auszubilden.

Revendications

1. Dispositif formant siège pliable disposé sur une paroi, comprenant une première surface de siège (3) qui, au moyen d'un adaptateur (4) fixé sur une paroi (2), peut pivoter autour d'un premier axe (6) entre deux positions différentes, une position soulevée sensiblement verticale et une position abaissée sensiblement horizontale, **caractérisé en ce que** le dispositif formant siège (1) comporte un dossier (5) pouvant pivoter autour d'un second axe (7) disposé à une certaine distance par rapport au premier axe (6) et lié à la première surface de siège (3), ledit dossier, dans une position soulevée, étant incliné contre la paroi (2) et, dans une position abaissée, étant sensiblement horizontal de manière à constituer une seconde surface de siège (5) afin d'élargir la première surface (3), de telle sorte que dans la position abaissée, la seconde surface de siège (5) coopère avec un moyen support (8, 10) afin de supporter la zone d'extrémité supérieure libre (9) du dossier.

2. Dispositif formant siège pliable selon la revendication 1, **caractérisé en ce que**, lorsque la première surface de siège (3) est dans sa position abaissée et le dossier (5) est dans sa position soulevée, le centre de gravité du dossier (5) est situé plus près de la paroi (2) que du second axe (7).

3. Dispositif formant siège pliable selon l'une quelcon-

que des revendications 1 à 2, **caractérisé en ce que** le dossier (5) est d'une configuration en forme L, le second axe (7) étant disposé sur une saillie (16) présente sur le pied du L sur une partie inférieure (17) du dossier (5).

4. Dispositif formant siège pliable selon l'une quelconque des revendications 1 à 3, **caractérisé en ce que** la première surface de siège (3) comporte, sur sa partie interne (19), une ouverture (18) dans laquelle la partie inférieure (17) du dossier est disposée et à travers laquelle s'étend le second axe (7).

5. Utilisation d'un dispositif formant siège selon l'une quelconque des revendications 1 à 4, en association avec une cabine de douche ou de bain comprenant deux parois opposées (2, 11), **caractérisée en ce que** la paroi (11) opposée à la paroi (2) sur laquelle l'adaptateur (4) est situé, comporte des moyens de support (10) destinés à supporter la zone d'extrémité supérieure du dossier (5) lorsque le dossier est abaissé.

6. Utilisation d'un dispositif formant siège selon la revendications 5, **caractérisée en ce**, la première surface de siège (3) étant abaissée dans une position de siège, le dossier (5) est peut être abaissé de manière à former une seconde surface de siège.

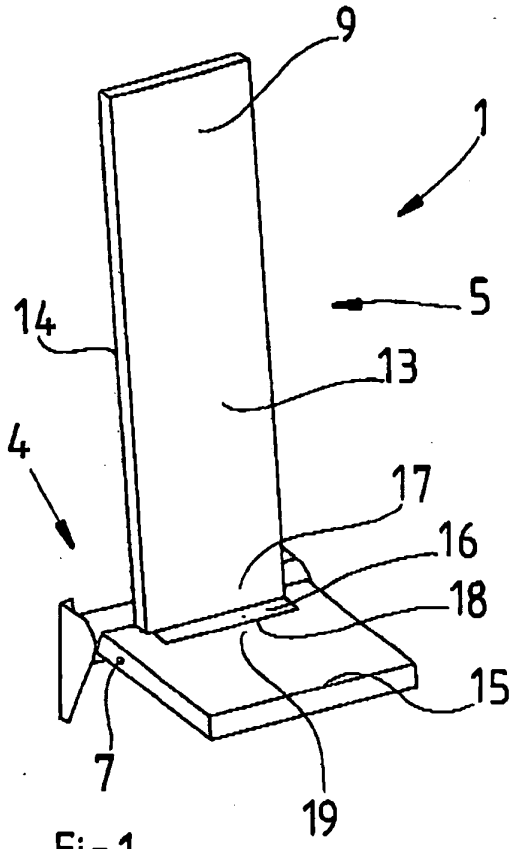


Fig 1

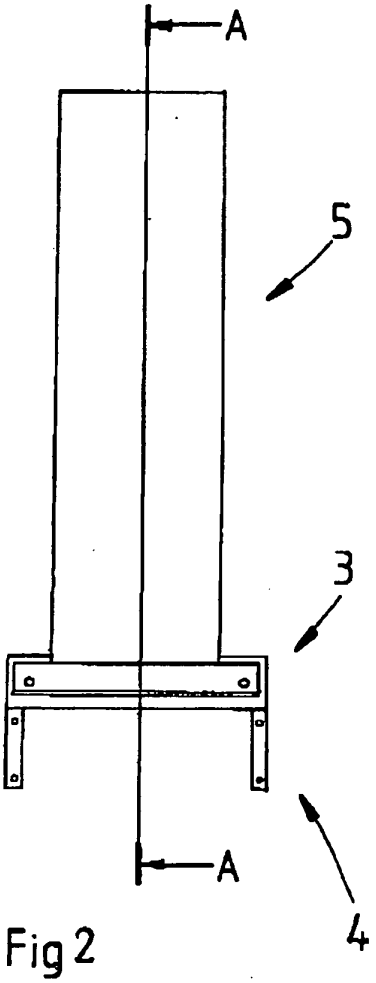


Fig 2

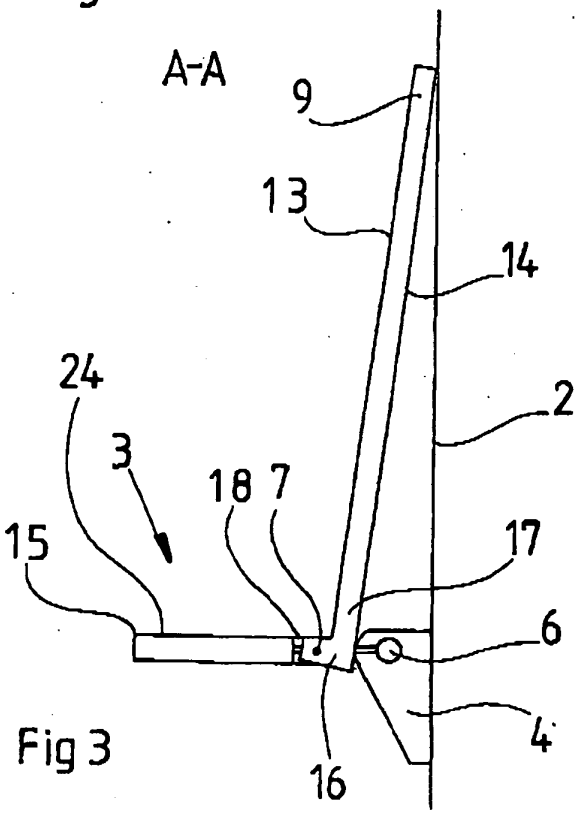


Fig 3

Fig4

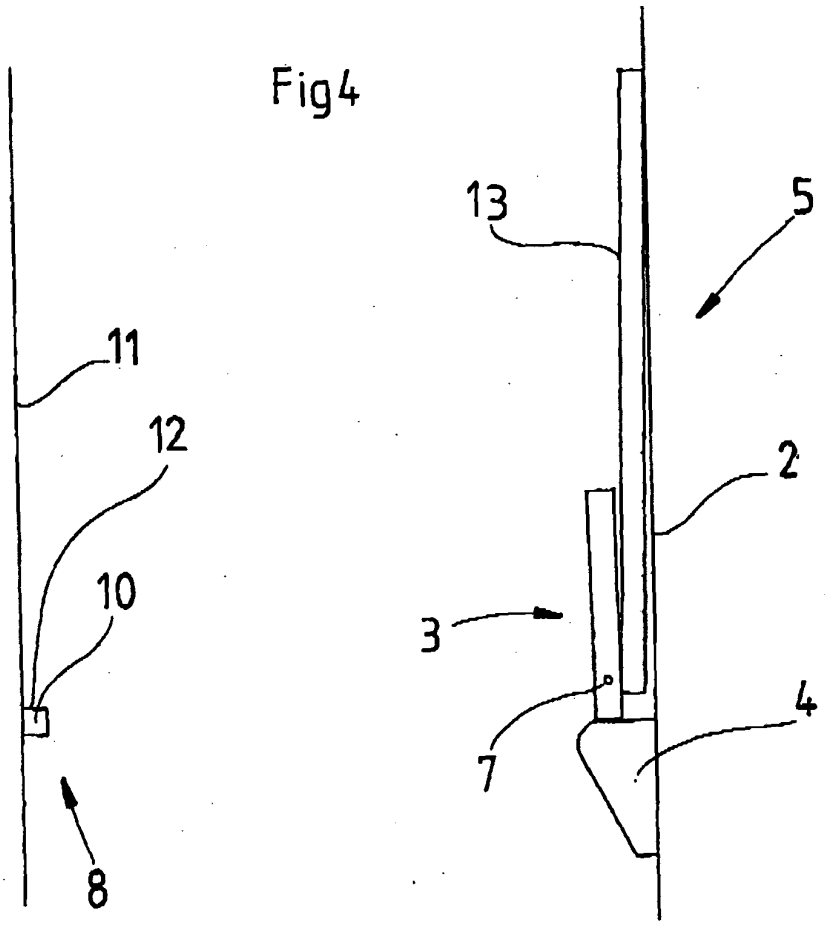
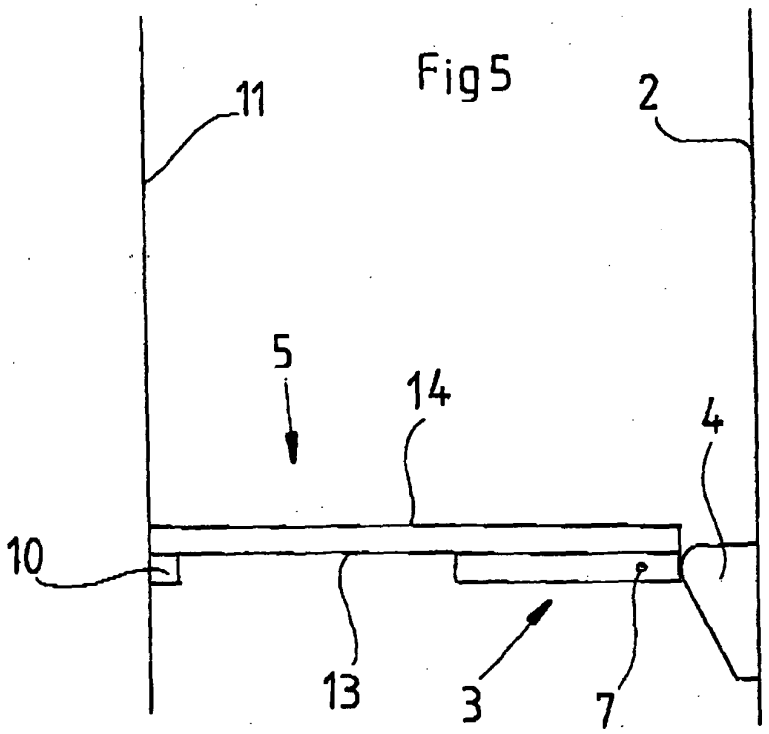


Fig5



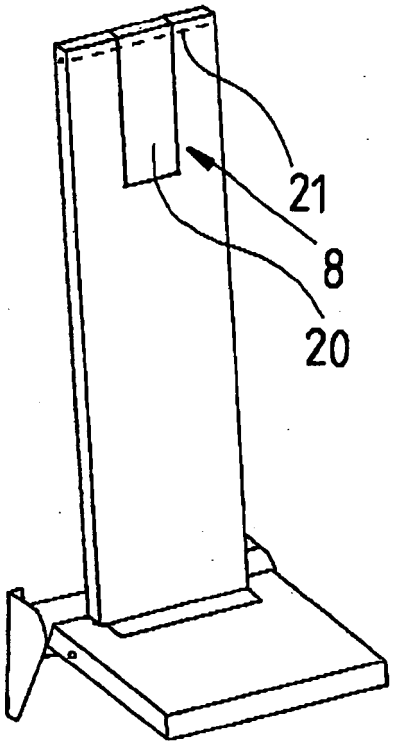


Fig 6

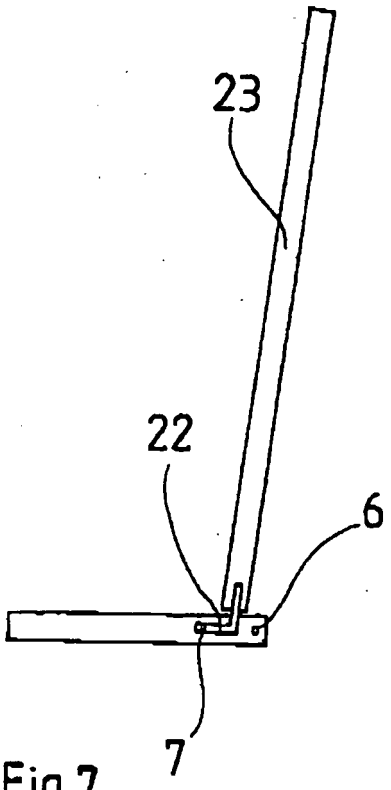


Fig 7

REFERENCES CITED IN THE DESCRIPTION

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