

Description

[0001] The present invention relates to table devices which are attachable to, or positionable adjacent to, an item of furniture.

[0002] It is known to provide table devices which can be used by a user who is sitting in a chair or sitting or lying on a bed. Such a table device can be convenient for many reasons. These include supporting food and/or drinks, or books, or electronic devices such as laptops, DVD players and the like, or as a platform to allow writing. In particular, the weight and the heat emitted from a laptop can be uncomfortable when the laptop is in direct contact with the user.

[0003] Known table devices are typically freely movable as a complete unit, for instance the complete device is mounted on castors and is rollable along the floor. The table device often comprises a table platform which is attached to, and immovable relative to, a support member in a cantilever arrangement. This is intended to allow the table device to be brought close to the item of furniture without the vertical leg of the support member interfering with a portion of the item of furniture.

[0004] However, to maintain stability, particularly when the table device is supporting a load, the support member requires horizontal struts which extend in the same direction and substantially as far as the table platform. Therefore, the device is only really suitable for items of furniture which include a substantial gap at floor level to accommodate the horizontal struts. However, many beds, armchairs and the like have a base which is close to the floor. Even if the item of furniture has such a gap, the table device can often not be brought close enough to the user due to the presence of adjacent furniture, such as bedside cabinets and the like. Furthermore, the device, when not in use, takes up a considerable volume of space due to the permanent presence of the horizontal struts and the horizontally orientated table platform.

[0005] An example of a table device which has a table platform which is movable relative to its support member is a device, such as found in hospitals, where a horizontal table platform can slide along a guide rail provided at each side of the bed from the foot of the bed to a suitable position for the user. The table device is always in a horizontal orientation. However, the table platform (in whichever position) and the guide rails are obtrusive and can be an inconvenience for the user when in bed or when getting in or out of bed. Furthermore, the bed is specially adapted for the table device and the table device is not attachable to a standard item of furniture without substantial modification.

[0006] According to the present invention there is provided a table device comprising:

- a substantially vertical support member adapted to be attachable to, or positionable adjacent to, an item of furniture; and
- a table platform movably coupled to the support

member such that the table device is movable from a first position in which the table platform is substantially parallel and adjacent to a vertical portion of the item of furniture to a second deployed position in which the table platform is substantially horizontal and extends over a horizontal portion of the item of furniture,

wherein the table platform is rotatable about a vertical axis relative to the support member when the table platform is at the second deployed position.

[0007] The table device may be adapted to take up a low horizontal space when the table platform is at the first position. Such a table device allows the placement of other items, such as a bedside table, close to the item of furniture. The table device may be adapted to take up a low volume when the table platform is at the first position.

[0008] The table platform may extend laterally over the horizontal portion of the item of furniture when at the second deployed position.

[0009] The support member may be provided at a first side of the item of furniture and a second support member may be provided at a second opposing side of the item of furniture.

[0010] One or both of the first and second support members may be a structural component of the item of furniture.

[0011] The support member may include a horizontal strut adapted to extend from the first side to the second opposing side of the item of furniture. The horizontal strut may have a low vertical height, such as 0.5 to 3 mm. The horizontal strut may extend between the first and second support members.

[0012] The table device comprising at least two support members and at least one horizontal strut may form a frame adjacent to the item of furniture. Such a table device can be inherently stable and requires no further supporting means.

[0013] The table device may include fastening means for fastening the support member to an item of furniture. The fastening means may be adapted to attach to the first side of the item of furniture. Alternatively or in addition, the fastening means may be adapted to attach to the second opposing side of the item of furniture. Alternatively or in addition, the fastening means may be adapted to attach to a third portion of the item of furniture.

[0014] The fastening means may be adjustable in one or both of height and width to accommodate different sizes of the item of furniture. The fastening means may comprise a clamp fixing or a screwed fixing or any other suitable known means. The horizontal strut may extend between the first and second clamps.

[0015] According to a first embodiment of the invention, the table platform may be movably coupled to the support member in a cantilever arrangement. The table platform may be pivotably coupled to the support member from a first position in which the table platform is sub-

stantially parallel and adjacent to the first side of the item of furniture. The table platform may be pivotable from the first position to a first intermediary position. The table platform may be horizontally oriented at the first intermediary position and the table platform is further pivotable to a deployed position. Alternatively, the table platform may be vertically oriented at the first intermediary position and the table platform is further pivotable to a second intermediary position in which the table platform is horizontally oriented and the table platform is further pivotable to a deployed position.

[0016] The table device may include releasable locking means for locking the table platform at one or both of the first and second positions. The locking means may be further adapted to lock the table platform at one or both of the first and second intermediary positions.

[0017] The table platform may extend away from the item of furniture when at the first intermediary position. The table platform may be freely pivotable from the first position to a first intermediary position. This allows a user on the item of furniture to easily move the table platform away from and towards the deployed position.

[0018] The table platform may include a table arm which is movably connected to the support member. The table arm may terminate in a ball bearing which is rollably housed within a housing provided at the support member. The housing may include one or more slots adapted to receive the table arm when it is moved from the first position to maintain the table platform at a horizontal orientation.

[0019] Alternatively, the table arm may be coupled to the support member by a collar or sleeve attached to a height adjusting strut. The table device may include a hinge device to allow rotation of the table arm relative to the support member. The table arm may be connected to the collar or sleeve by one or more support struts provided at the table arm. The or each support strut may be detachable, such as a sprung locking pin or screw knob. The table platform and table arm may be lowerable to a position adjacent to or behind the item of furniture. When at the deployed position, the table platform may be rotatable about the vertical axis and may be lockable at the first intermediary position. A second locking pin or screw knob may be provided on the sleeve or support member for locking at the first intermediary position.

[0020] The table platform may be rotatable relative to the table arm. The table platform may be coupled to the table arm by a second sleeve or collar. This may be adapted to allow for storage alongside the support member in the first position. At the second deployed position, the table platform may be adapted to rotate vertically about the second sleeve or collar. The table platform may be adapted to allow further rotation about the axis from vertical to horizontal by means of a lockable device to allow the table and arm to be deployed in a horizontal orientation towards the user.

[0021] A plurality of slots may be provided such that the table platform can be maintained at a horizontal ori-

entation at a number of positions about a vertical axis. One of the plurality of slots may correspond to the second deployed position. Alternatively, the housing may be rotatable about a vertical axis of, and relative to, the support member.

[0022] The table device may be adapted such that the height of the table platform from the floor is adjustable when the table platform is at the second position.

[0023] A plurality of table platforms may be movably coupled to the support member. Each table platform may be independently movably coupled to the support member.

[0024] According to a second embodiment of the invention, the item of furniture may comprise a bed and the table platform may be pivotably coupled to the support member from a first position in which the table platform is substantially parallel and adjacent to a head or a foot portion of the bed.

[0025] The table platform may be substantially parallel and adjacent to a headboard member of the bed. The fastening means may be adapted to attach to the headboard member of the bed.

[0026] The surface of the table platform which opposes the load bearing surface may be adapted to substantially match the headboard member. The surface may be padded. The headboard member may include a recess for receiving the table platform.

[0027] The table device may be adapted to support one or more of food and/or a drink, a tray, a book, an electronic device, and medical equipment.

[0028] The table device may include holding means for releasably holding an item supported on the table platform. The table device may include an angular support for supported an item at an angle relative to the horizontal table platform. The angular support may be adjustable to provide a number of angular positions. The angular support may comprise a triangular member.

[0029] The table device may include a light source. The light source may be provided at the table platform. The table device may include a screen to limit the light that is emitted in one or more directions.

[0030] Alternatively the table platform may be substantially parallel and adjacent to the foot of the bed. The table platform may be adapted to support a television, DVD player, CD player or the like.

[0031] Embodiments of the present invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a first embodiment of a table device attached to a bed, the table platform shown at a first, intermediary and second position;

Figure 2 is a detailed perspective view of the fastening means of the table device of Figure 1;

Figure 3 is a perspective view of a second embodiment of a table device attached to a bed, the table

platform omitted for clarity;

Figure 4 is a detailed perspective view of the fastening means of the table device of Figure 3;

Figure 5 is a perspective view of a third embodiment of a table device attached to a bed;

Figure 6 is a perspective view of a fourth embodiment of a table device which includes a frame;

Figure 7 is a perspective view of a fifth embodiment of a table device attached to a bed;

Figure 8 is a perspective view of a sixth embodiment of a table device attached to an bed;

Figure 9 is a perspective view of a seventh embodiment of a table device which includes a frame;

Figure 10 is a perspective view of an eighth embodiment of a table device attached to a bed;

Figure 11 is a perspective view of a ninth embodiment of a table device attached to a sofa;

Figure 12 is a perspective view of a tenth embodiment of a table device attached to an armchair;

Figure 13a is a detailed exploded perspective view of locking means for any of the previous embodiments of the table device;

Figure 13b is another detailed perspective view of the locking means of Figure 13a;

Figure 14 is a perspective view of an eleventh embodiment of a table device attached to an armchair;

Figure 15 is a perspective view of a twelfth embodiment of a table device attached to an armchair;

Figures 16 to 19 are perspective views of a thirteenth embodiment of a table device attached to an armchair at various positions;

Figure 20 is a perspective view of a fourteenth embodiment of a table device attached to an armchair; and

Figures 21 to 25 are perspective views of a fifteenth embodiment of a table device.

[0032] Figure 1 shows a table device 10 which comprises a vertical support member 20 and a table platform 30. The support member 20 is provided at a first side 102 of a bed 100. The table platform 30 is movable from a first position 32, in which the table platform 30 is vertical

and is parallel and adjacent to the first side 102, to an intermediary position 34, in which the table platform 30 is horizontal and extends away from the bed 102. This is achieved by pivoting the table platform 30 upwards until the table platform 30 and associated table arm 38 is horizontal. The table device 10 is further movable from this intermediary position 34 to a second deployed position 36, in which the table platform 30 is horizontal and extends laterally over a horizontal portion of the bed 100. The height of the table platform 30 from the floor is adjustable when the table platform 30 is at the second position.

[0033] In an alternative embodiment, the table platform 30 is pivotable about a lateral horizontal axis (with respect to the bed) from the first position 32 to an intermediary position in which the table platform 30 is still vertical and parallel and adjacent to the first side 102 but a table arm 38 of the table platform 30 is now horizontal. The table platform 30 is adapted so that it can be rotated about the axis of the arm 38 until the table platform 30 is horizontal. The table device 10 is further pivotable about the vertical axis of the support member 20 from this intermediary position 34 to the second deployed position 36.

[0034] The support member 20 includes a stand 22 which is relatively narrow in all horizontal directions. Indeed, the stand 22 extends only in the longitudinal direction with respect to the bed 100 and not in a lateral direction. Stability in the lateral direction is achieved in other ways, as explained below. Therefore, the table device 10 is adapted to take up a low horizontal space and a low volume when the table platform 30 is at the first position. Indeed, the table device 10 can be positioned between the bed 100 and a bedside cabinet (not shown).

[0035] To maintain stability, the support member 20 includes fastening means for fastening the support member 20 to the bed. This eliminates the need for a stand which has long horizontally extending portions. In the embodiment of Figure 1, the fastening means comprises two thin horizontal plates 40, one provided on a screwed rod 41 so that the plates 40 can be moved towards each other and so provide a clamp. Alternately, an upper and lower clamp may be fixed on movable and lockable sleeves around the outside of the support strut, or internal to it, to fit to the top and bottom of, or horizontally across, the base of the bed. The plates 40 can be positioned on the upper and lower surfaces of the base 104 of the bed 100 to clamp the base 104. Since the plates 40 are thin, they will not be felt by a user once the mattress 106 is placed on top of the base 104. The vertical height of each plate 40 is adjustable to suit any dimensions of the bed 100. The clamping arrangement is shown in more detail in Figure 2.

[0036] In an alternative embodiment, the clamp plates 40 could have an L shaped profile to match with edges of the bed 100. Also, the support member could be a structural component of the item of furniture, such as the bed post of a bed.

[0037] Figure 3 shows a similar embodiment with like

features given like reference numerals (the table platform 30 has been omitted for clarity). In this embodiment, the support member 20 includes a horizontal strut 24 which is adapted to extend from the first side 102 to the second opposing side 108 of the bed 100. The fastening means comprises the two thin horizontal plates 40 as before but also includes two vertical plates 42 with one at the first side 102 and one at the second side 108 at the end of the strut 24. Again, one plate 42 is provided on a screwed rod 41 so that the plates 42 can be moved towards each other and so clamp the base 104. The vertical height of the strut 24 is adjustable to suit any dimensions of the bed 100. Also, the strut 24 includes a spacer portion 25 to accommodate any bulging of the bed, bed clothes and the like. The clamping arrangement is shown in more detail in Figure 4.

[0038] Although this embodiment includes a long horizontally extending member (the strut 24), this is adapted to be unobtrusive and does not interfere with the bed 100. The horizontal strut 24 could be placed either above or below the base 104. If above the base 104, the strut 24 can have a low vertical height, such as 0.5 to 3 mm, so that it will not be felt by a user once the mattress 106 is placed on top of the base 104.

[0039] In this embodiment, the fastening means also includes a third clamp 44 for attachment to the headboard 110. This improves stability without exerting a substantial load on the headboard (which is typically not capable of withstanding a substantial load).

[0040] Figure 5 shows an embodiment (again, like features are given like reference numerals) which includes a second support member 20 provided at the second opposing side 104 of the bed 100. The two support members 20 share a common horizontal strut 24.

[0041] The second support member 20 has its own table platform 30. This allows the bed to have two occupants and each occupant to have their own table platform 30. Two table platforms 30 could be provided at each support member 20, one at a greater height than the other. This would allow each occupant to have two table platforms 30. One may be used, for example, for supporting a book while the other may, for example, support food or drink. Each table platform 30 is independently movable.

[0042] Figure 6 shows an embodiment in which the table device 10 forms a frame 28 adjacent to the bed. The frame includes two support members 20 and a horizontal strut 24 but can include further structural members. Such a table device 10 is inherently stable and the fastening means of previous embodiments can be eliminated.

[0043] Figure 7 shows an embodiment in which one of the support members 20 has three table platforms 30. This could be especially useful in a hospital environment, where one or more of the table platforms 30 could be used to support medical equipment such as monitors, drips and the like. Also, in this embodiment, the stand 22 of the support member 20 is mounted on castors 26. This

allows the table device 10 to be moved to another bed once the clamps have been released. This also allows movement of the hospital bed from one location to another in the hospital. Castors, wheels, or rollers could be included in any of the embodiments described herein.

[0044] The table device 10 can be adapted such that it is fixed in position relative to the bed so that it remains at a constant position for the user as the bed is moved up or down. For example, this could be achieved by fixing the vertical distance between the table platforms 30 and the clamps.

[0045] Figure 8 shows an embodiment in which the table platform 30 is pivotably coupled to two support members 20 from a first position in which the table platform is substantially parallel and adjacent to the headboard 110 of the bed 100. The under-surface of the table platform 30 (when deployed) can be adapted to match the headboard member by being the same colour and padded. The headboard 110 includes a recess 112 for receiving the table platform 30 when it is at the first position. Figure 9 shows a similar embodiment except that the table device 10 is provided as a frame.

[0046] Figure 10 shows an embodiment in which the table device 10 is provided at the foot of the bed 100. The table platform 30 could be used to support a television of the like.

[0047] Figures 11 and 12 shows a similar embodiment except that the table device 10 is for use with a sofa 120 and an armchair 130 respectively. As in some previous embodiments, a horizontal strut 24 extends under the base and two plates 42 provide a clamp. Tiered table platforms 30 provide various options such as to support remote controls, beverages and many other items.

[0048] As shown in Figures 13a and 13b, the table arm 38 of the table platform 30 is movably connected to the support member 20. The table arm 38 terminates in a ball bearing 50 which is movably housed within a housing 28 of the support member 20. The housing 28 includes a number of slots 60 which can receive the table arm 38 to maintain the table platform 30 at a horizontal orientation.

[0049] The slots 60 allow the table platform 30 to be maintained at a horizontal orientation at various positions about the vertical axis of the support member 20. One of these slots 60 corresponds to the deployed position. Therefore, the slots provide releasable locking means at the second and various intermediary positions. Other slots 60 correspond to a position in which the table platform 30 extends away from the bed 100. This is practically useful as it allows the user to move the table platform 30 away without returning the table platform 30 to the first position (and the table platform 30 may still be supporting one or more items).

[0050] As previously mentioned, the device 10 can be incorporated into an item of furniture such as an armchair, settee, couch or bed. For example the table device 10 may be incorporated within a hollow space beneath the top of the armrest of an armchair 130. This is shown in

Figure 14. Alternatively, the table device 10 may be stowable in a gap provided between the arm and the side of the cushion and base as shown in Figure 15.

[0051] When required, the user can lift the armrest, which may be hinged, to access the table device 10 beneath. The table platform 30 may be on one or more guide rails which, when the table is pulled vertically out of the hollow space, and when it reaches the top by means of a lockable hinge or other device, may extend slightly higher to a suitable position for using a laptop or eating. At the top position, the table platform 30 would descend 90 degrees by the hinge over the lap of the user. The table platform 30 may or may not rest on the opposite arm of the chair.

[0052] As with other embodiments, the table platform 30 can be rotatable relative to the support member 20 so that it can be rotated about a vertical axis when deployed. This allows quick and easy manipulation, without folding away the table device 10, such as when the user wants to get out of the armchair 130.

[0053] In another embodiment, the device 10 may be attached to a frame provided on the exterior or interior side of an armchair 130 or other item of furniture (Figures 16 to 19), or on a frame behind the armchair 130 where it would be able to be raised and rotated over the lap of a user. This embodiment includes two support members 20. However, the table platform 30 can be made rotatable about the vertical axis (to either side) by allowing detachment of the table platform 30 from one of the support members 20.

[0054] In another embodiment, the table device 10 may be suitably fixed to either side and/or on a frame behind the chair such that it rotates over the top of the user's head to produce a table over the lap of the user at the appropriate height (Figure 20). Again, if supported by two support members 20, one may be detachable. This would allow for example a laptop to remain on the table platform 30 when swivelled out of the way and easily returned to a usable position when required.

[0055] The table device 10 may unfold or fold in on itself similar to a concertina before being stored in the vertical position at the side of the item of furniture. This is shown in Figures 21 to 25.

[0056] In this embodiment, the support member 20 is attached to the base of the table support arm 38 by a hinge which, when the lower support strut is released, allows the whole support arm (when folded) with the folded table platform 30 at the end of the arm to swing down vertically at the side of the bed.

[0057] To use the folded table, the following procedure can be used:

1. Raise the whole table arm up 90 degrees and affix the support strut at the base of the arm to the support stand;
2. Extend and unfold the support arm;
3. Rotate the table from a vertical to a horizontal position; and

4. Swing the arm with table over lap.

[0058] To fold the table, the reverse procedure can be used:

1. Swing the table arm to the side;
2. Fold the table from the horizontal to the vertical position at the end of the table arm;
3. Fold the table arm in a concertina action to its smallest footprint towards the end/beginning of the arm where it is attached to the support stand by two struts, the upper of which is hinged; and
4. Release the lower support strut and allow the table and arm to fold down and hang by the hinge at the top strut of the support arm attached to the stand and fold down into a vertical position at the side of the item of furniture.

[0059] The table arm may comprise one or more support struts, any of which could be hinged to allow the arm with the table to fold alongside the support strut. In the version described it is the upper but could be the lower strut. The concertina folding of the device may be in a single or multiple versions with various 'knuckles' or 'joints' along the length of the table arm.

[0060] The height adjustment may consist of a support strut with an inner strut which raises inside the outer strut (or an outer strut which raises over the inner strut). The inner strut may be held at the required height by means of a simple knob with a clamp screw. Alternatively, the height adjustment may consist of an inner portion with holes regularly spaced at suitable intervals where a sprung prong inserts from the outer into the inner strut locking it in place. The end of the table arm is at the top of the inner support strut. Additional table devices 10 may still be attached in the same way beneath the top one to allow various tiers of table arms.

[0061] A table stand whether single or double can be used with other items of furniture or locations such as a portable lectern for public address, a music stand and many other uses as required. Since multiple tiered devices can swivel about the user, it could be used as a mini office to support the likes of laptops, printers, scanners, modems, routers, and a writing table.

[0062] The table device can support various items such as food and drink, a book, a laptop and so on. Particularly for a book, elastic bands (not shown) can be provided for releasably holding the book when it is supported on the table platform 30. Also, an adjustable triangular support (not shown) can be provided so that the book (or a laptop, DVD player or the like) can be positioned at an angle to make reading easier. A lamp (not shown) can be provided at the table platform 30 to assist reading or writing. A screen (not shown) can be provided to limit the light that is emitted from the lamp which could disturb other occupants of the bed.

[0063] Various modifications and variations can be made without departing from the scope of the present

invention.

Claims

1. A table device comprising:

a substantially vertical support member adapted to be attachable to, or positionable adjacent to, an item of furniture; and
a table platform movably coupled to the support member such that the table device is movable from a first position in which the table platform is substantially parallel and adjacent to a vertical portion of the item of furniture to a second deployed position in which the table platform is substantially horizontal and extends over a horizontal portion of the item of furniture,

wherein the table platform is rotatable about a vertical axis relative to the support member when the table platform is at the second deployed position.

2. A table device as claimed in Claim 1, including means for maintaining the table platform at a horizontal orientation at a number of positions when the table platform is rotated about a vertical axis relative to the support member when the table platform is at the second deployed position.

3. A table device as claimed in Claim 1 or 2, wherein the table platform includes a table arm which is movably connected to the support member, and wherein the table arm terminates in a ball bearing which is rollably housed within a housing provided at the support member.

4. A table device as claimed in Claim 1 or 2, wherein the table platform includes a table arm which is movably connected to the support member, and wherein the table arm is coupled to the support member by a collar or sleeve.

5. A table device as claimed in Claim 3 or 4, wherein the table platform is rotatable relative to the table arm.

6. A table device as claimed in any preceding claim, including at least one support strut releasably connected between the table platform and the support member.

7. A table device as claimed in any preceding claim, wherein the table device is adapted to take up a low horizontal space when the table platform is at the first position.

8. A table device as claimed in any preceding claim,

wherein the support member comprises a structural component of the item of furniture.

9. A table device as claimed in any preceding claim, wherein the support member includes a horizontal strut adapted to extend from the first side to the second opposing side of the item of furniture, the horizontal strut having a low vertical height.

10. A table device as claimed in any preceding claim, comprising at least two support members and at least one horizontal strut which form a frame adjacent to the item of furniture.

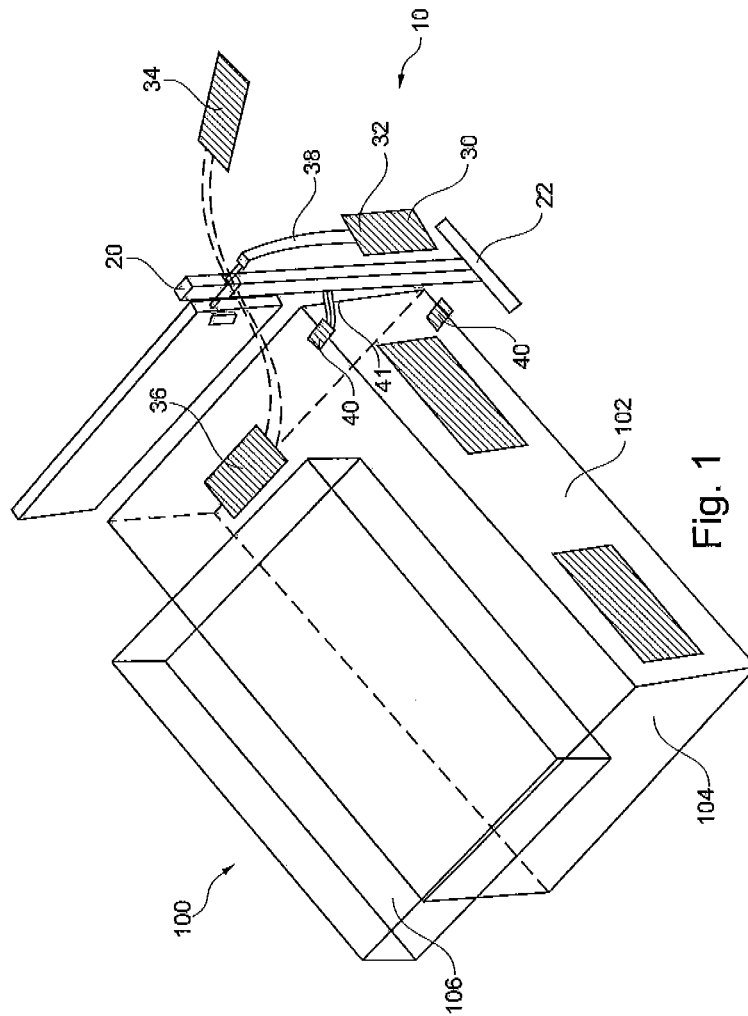
11. A table device as claimed in any preceding claim, including fastening means for fastening the support member to an item of furniture.

12. A table device as claimed in Claim 11, wherein the fastening means is adjustable in one or both of height and width to accommodate different sizes of the item of furniture.

13. A table device as claimed in any preceding claim, wherein the table platform is movably coupled to the support member in a cantilever arrangement.

14. A table device as claimed in any preceding claim, wherein the table platform is pivotably coupled to the support member from a first position in which the table platform is substantially parallel and adjacent to the first side of the item of furniture.

15. A table device as claimed in any preceding claim, wherein a plurality of table platforms are movably coupled to the support member.



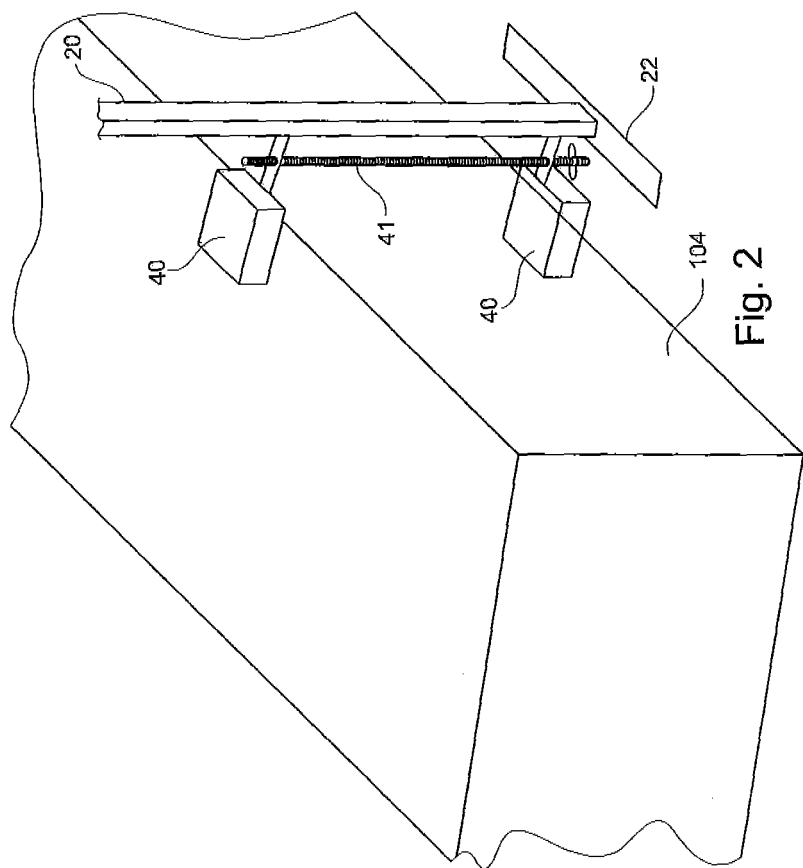


Fig. 2

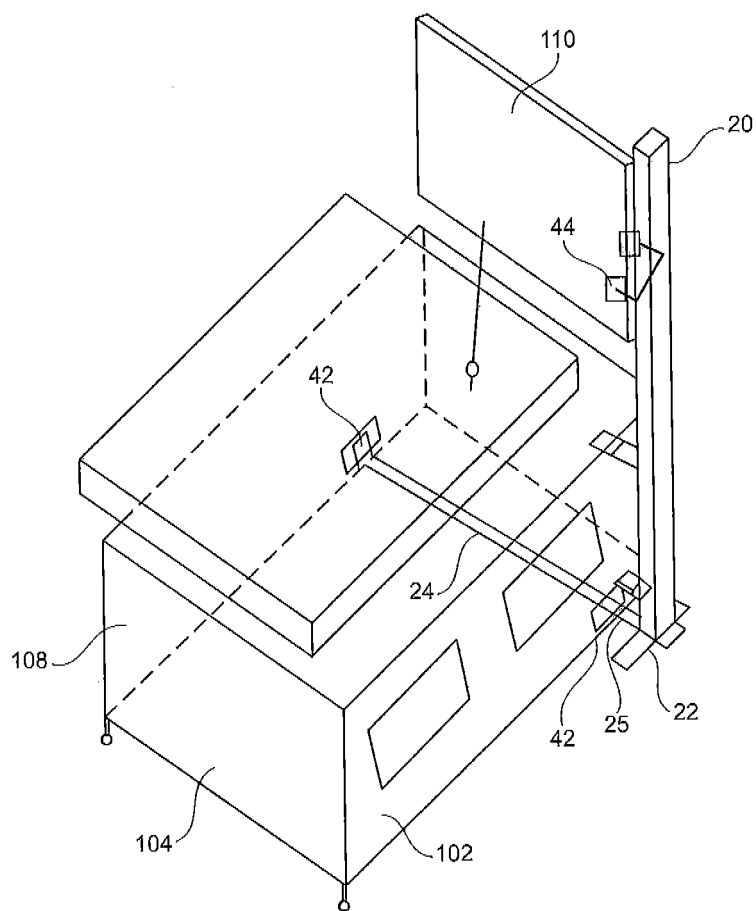


Fig. 3

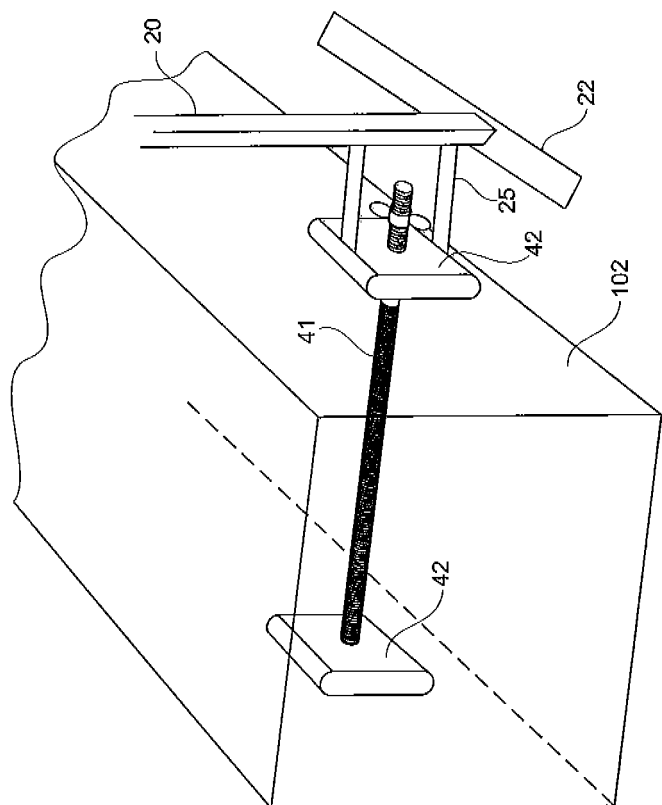
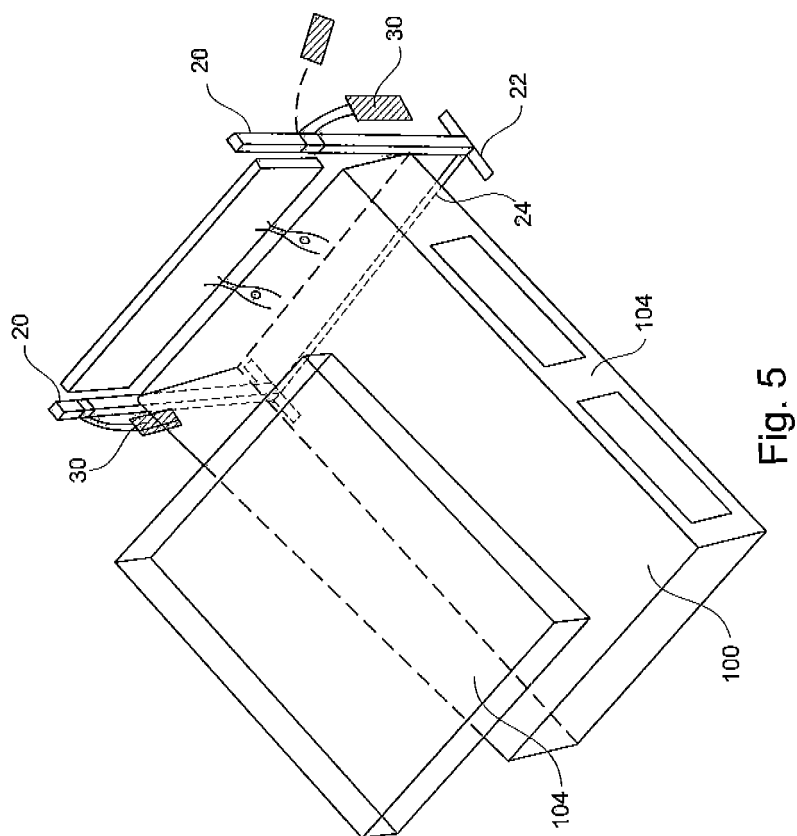


Fig. 4



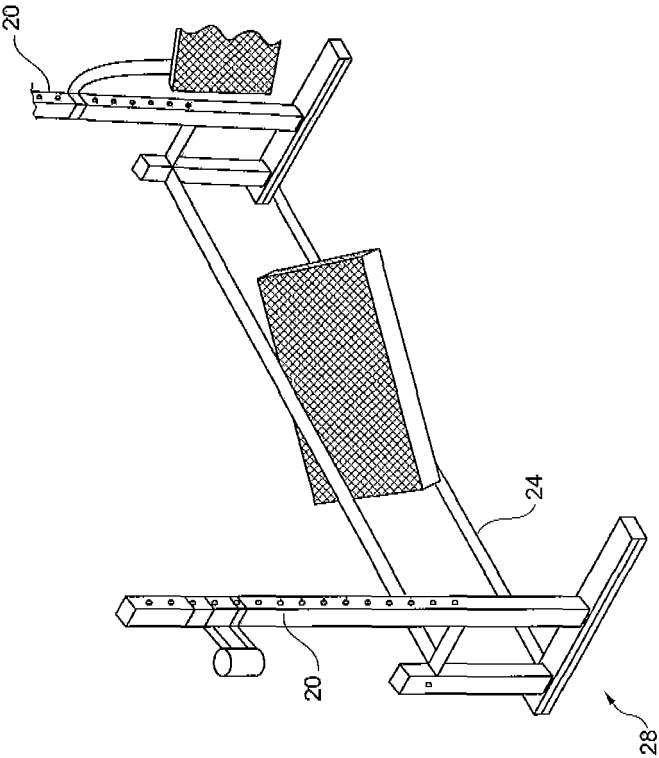


Fig. 6

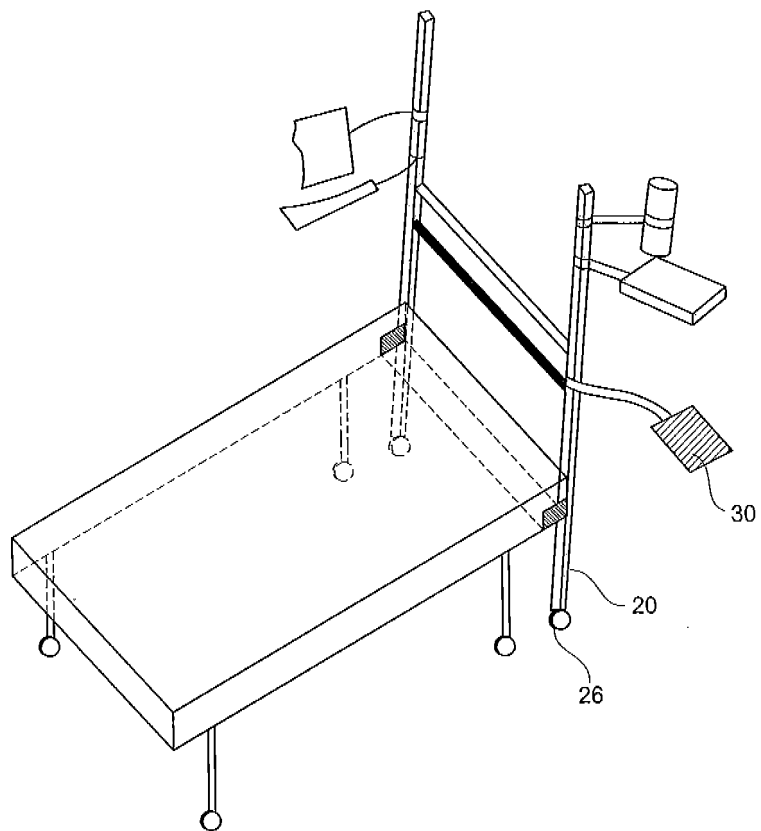


Fig. 7

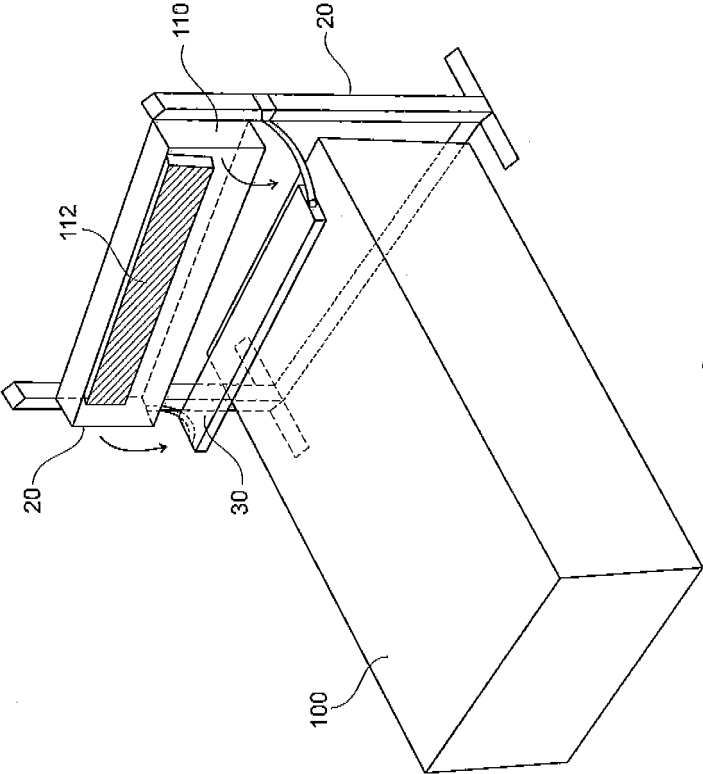


Fig. 8

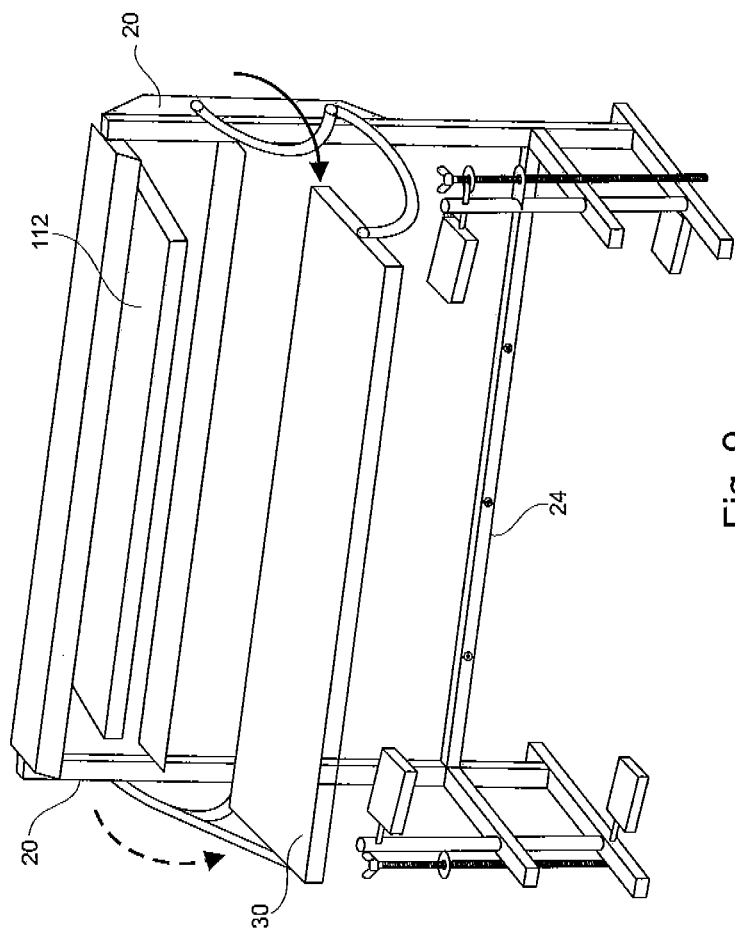


Fig. 9

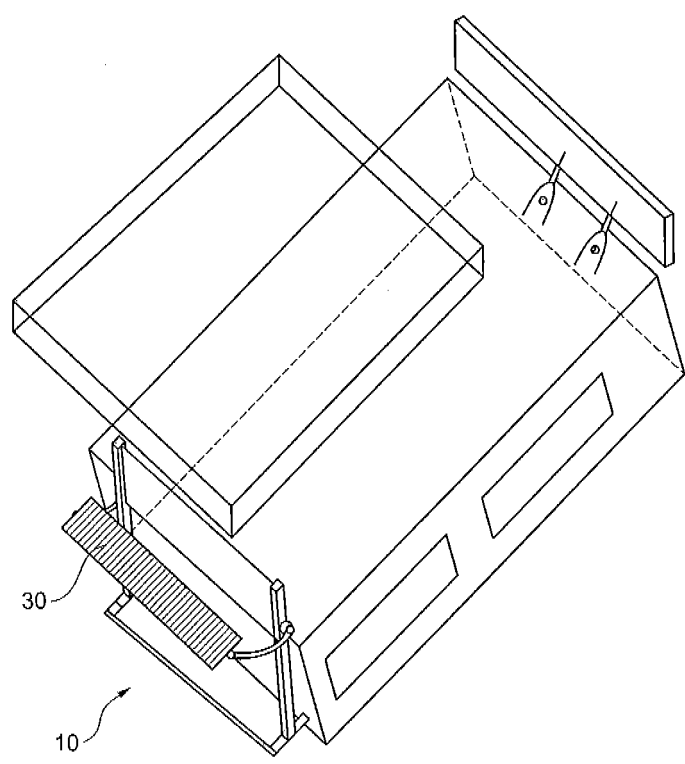
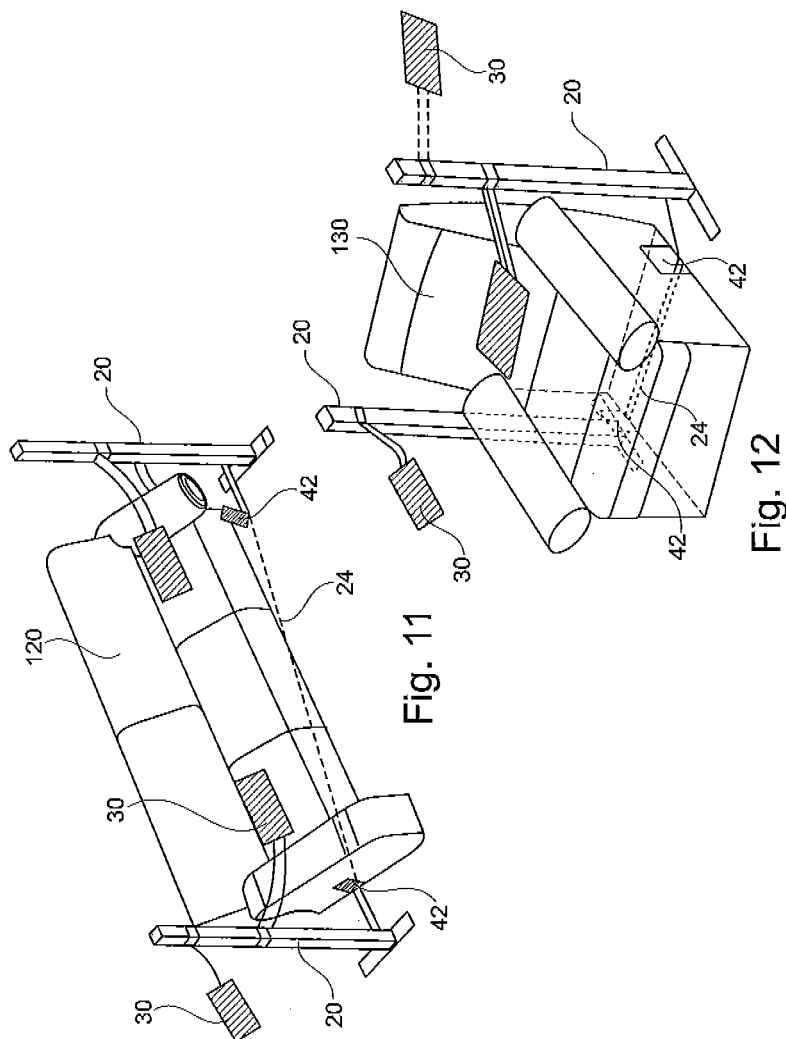
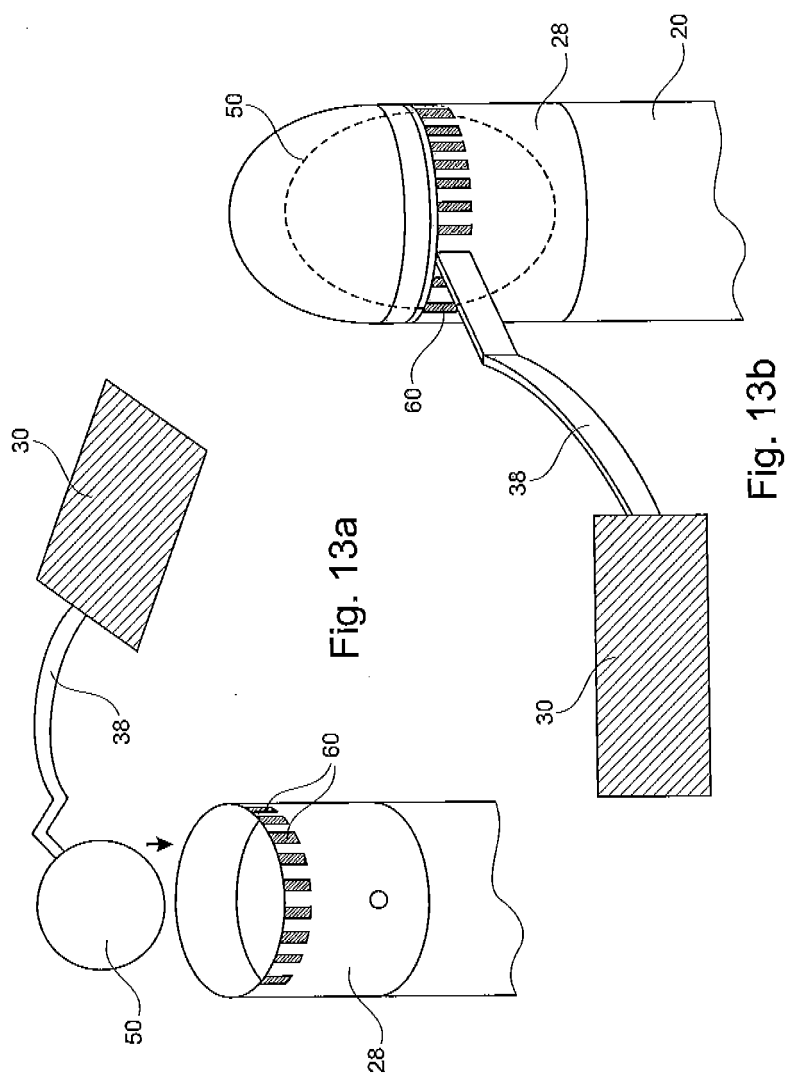


Fig. 10





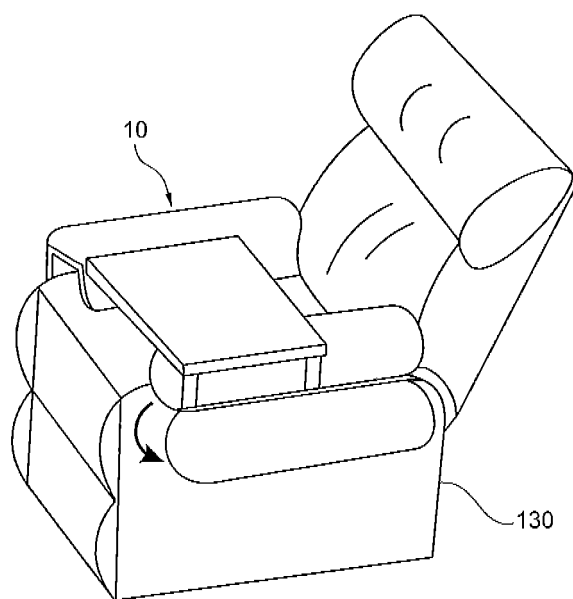


Fig. 14

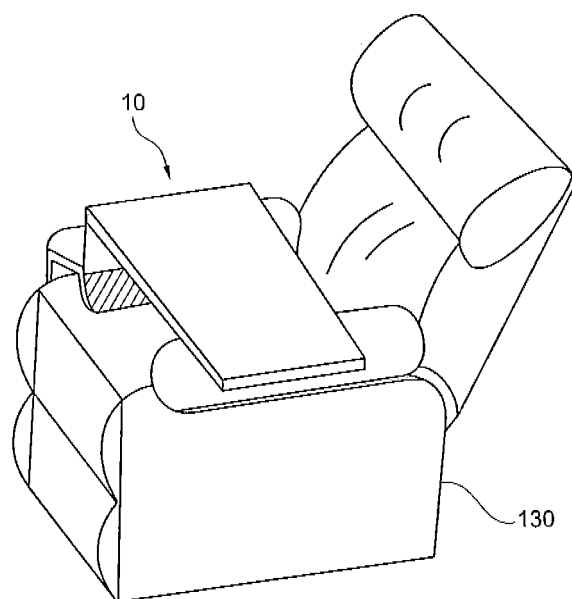


Fig. 15

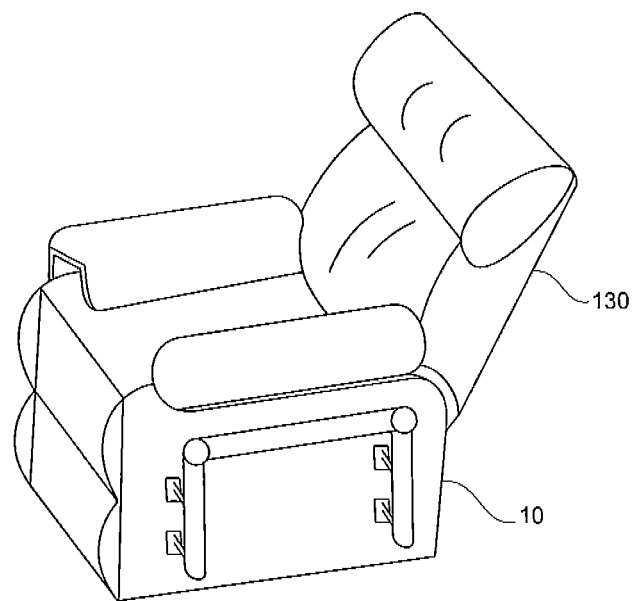


Fig. 16

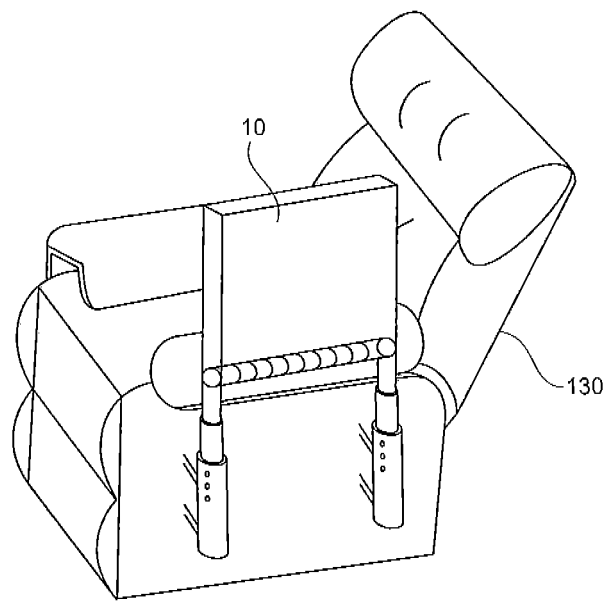


Fig. 17

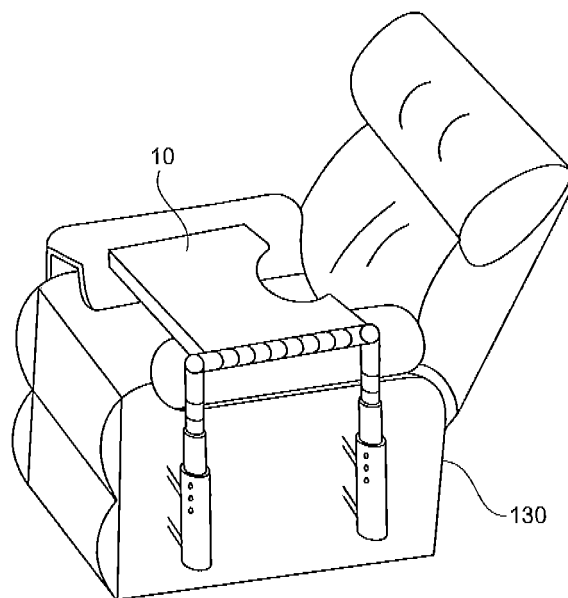


Fig. 18

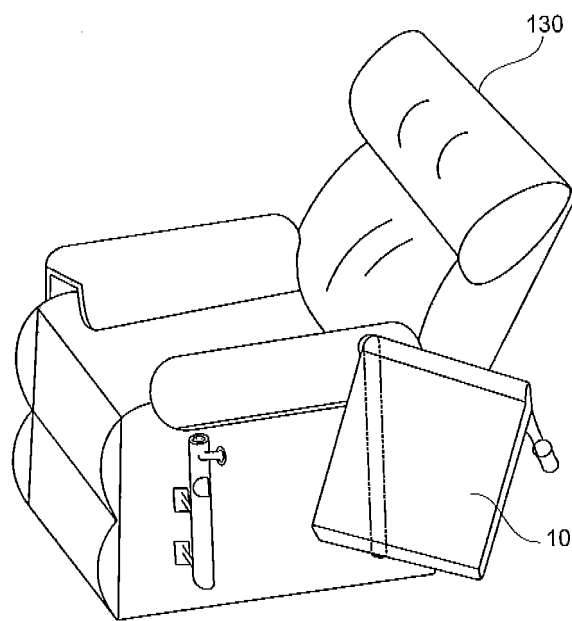


Fig. 19

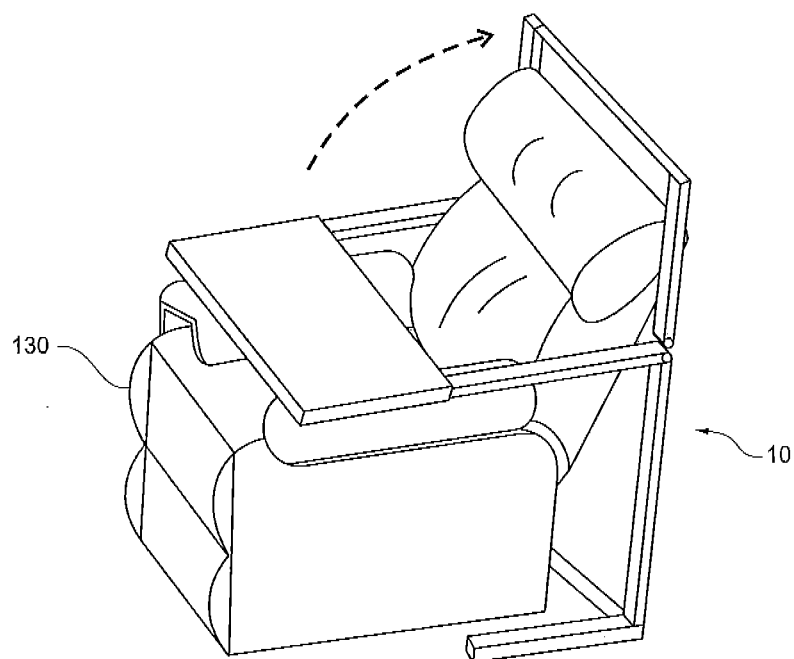
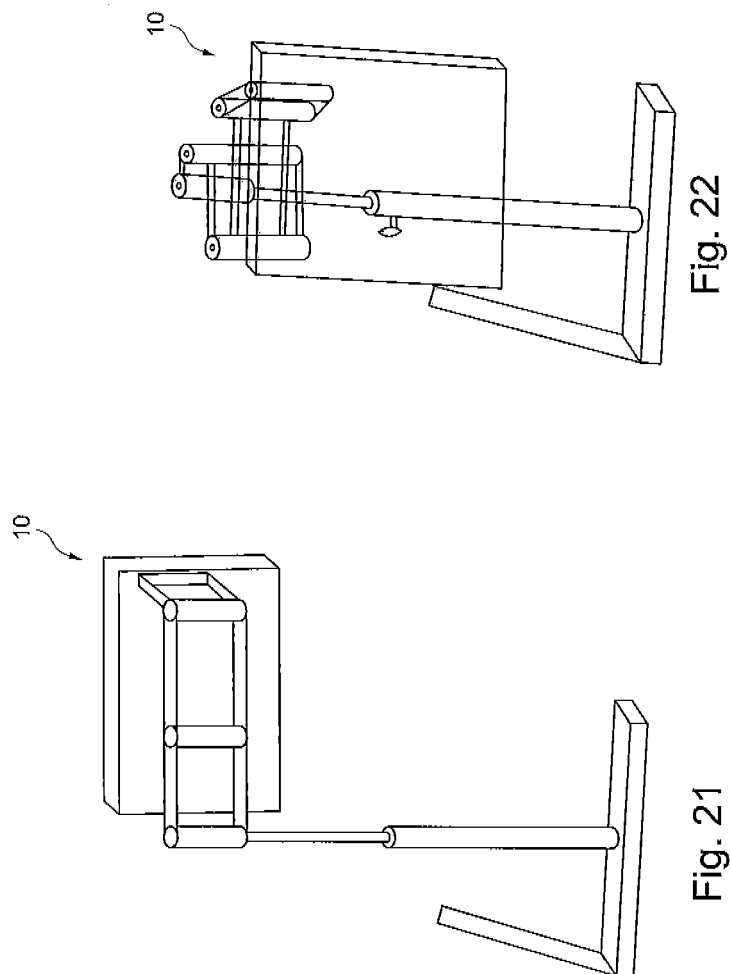


Fig. 20



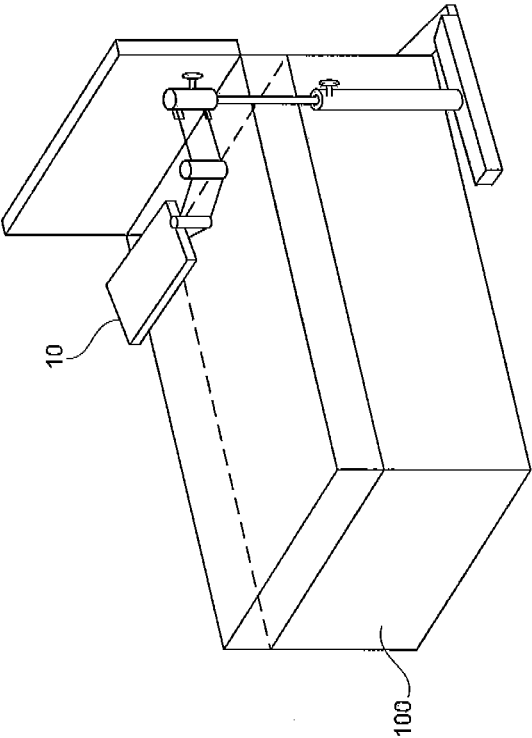


Fig. 23

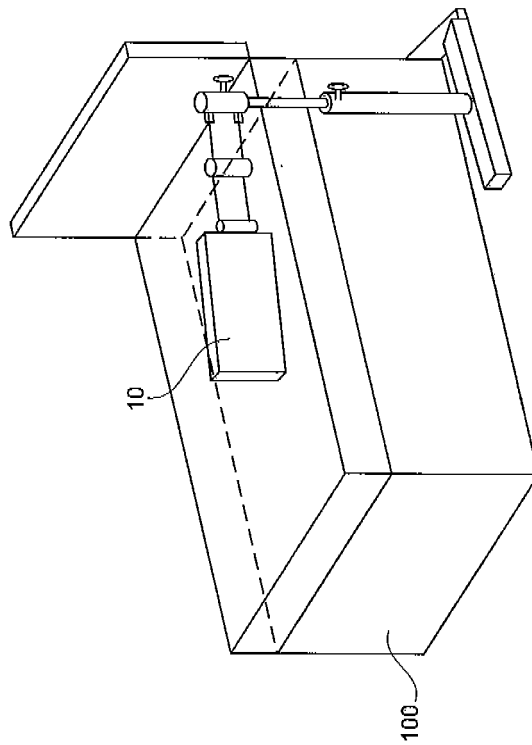


Fig. 24

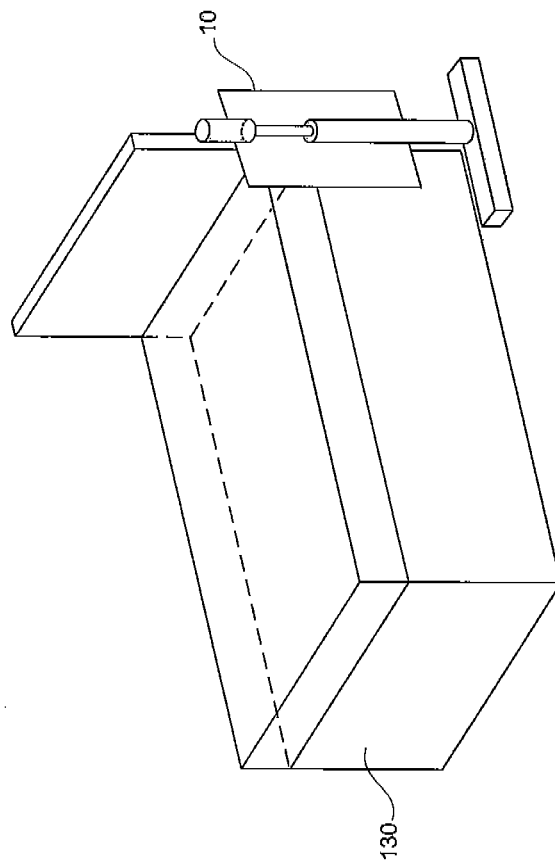


Fig. 25



EUROPEAN SEARCH REPORT

Application Number
EP 09 17 5068

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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X	US 6 764 055 B1 (LEE DAVID S [US]) 20 July 2004 (2004-07-20) * column 1, lines 56-63 *	1	
A	US 5 408 938 A (GENEST NELSON J [US]) 25 April 1995 (1995-04-25) * abstract *	1	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			A47B
Place of search		Date of completion of the search	Examiner
Munich		25 November 2009	Lassen, Steen D.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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The members are as contained in the European Patent Office EDP file on
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25-11-2009

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