



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
14.10.2009 Bulletin 2009/42

(51) Int Cl.:
A47C 19/02 (2006.01)

(21) Application number: **09155104.4**

(22) Date of filing: **13.03.2009**

(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 MK MT NL NO PL PT RO SE SI SK TR
Designated Extension States:
AL BA RS

(71) Applicant: **Lago S.p.a**
35010 Villa del Conte (PD) (IT)

(72) Inventor: **Lago, Daniele**
35010, Villa del Conte (PD) (IT)

(74) Representative: **Vinci, Marcello**
Ufficio Veneto Brevetti
Via Sorio 116
35141 Padova (IT)

(30) Priority: **11.04.2008 IT PD20080023 U**

(54) **Dismountable bed structure**

(57) The invention is a new bed structure with flat elements (E) resting on the floor, made preferably of a glass sheet and having a square or rectangular shape, with one side (E1, E2) resting on the floor and one opposite side (E3) suitable for being secured to a supporting frame (S) for the mattress (M), said frame (S) in turn comprising one or more sections (S1) substantially in the

shape of an inverted U for engagement of said side (E3) of said supporting elements (E). The new bed structure also comprises a board (P) resting and secured on said supporting frame (S) for the mattress(es) (M), wherein said board (P) comprises a plurality of through holes or slots (P3) suited to ensure transpiration and a perimeter band (P4) decorated with painted, engraved or carved motifs.

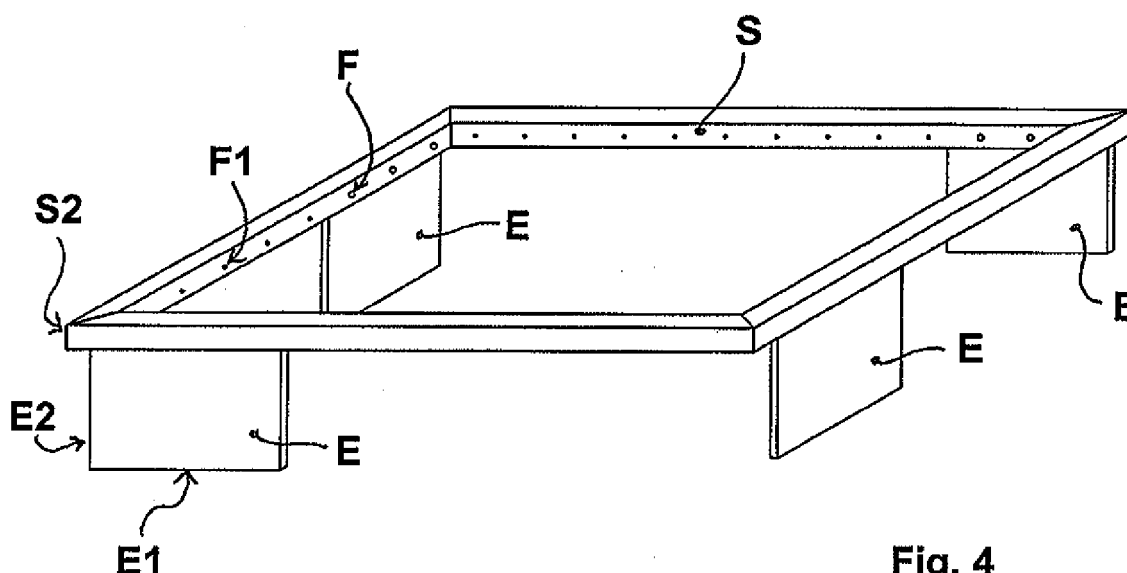


Fig. 4

Description

[0001] The present patent relates to bed structures and in particular it concerns a new dismountable bed structure.

[0002] Various types of bed structure are known, comprising elements resting on the floor and a frame or surface supporting the base and mattress.

[0003] Said elements resting on the floor usually comprise four supporting feet positioned at the corners of the frame supporting the base and mattress.

[0004] Said supporting frame comprises a generically rectangular-shaped structure forming the perimeter of the bed and providing a support for the mattress base.

[0005] Bed structures are also known with elements resting on the floor comprising longitudinal boards, with substantially rectangular section, positioned edgewise, i.e. resting on their sides, directly or by means of feet or inserts, and arranged in such a way as to form the perimeter of the bed on which the mattress base will be rested.

[0006] The mattress base has a generically rectangular shape and comprises a rigid perimeter supporting transversal elements or slats on which the mattress directly rests.

[0007] The subject of the present patent is a new type of bed structure which can be disassembled into elements with reduced overall dimensions.

[0008] The main object of the present invention is to minimise the overall dimensions of the bed structure, disassembled into its component parts, in order to reduce the volume, particularly during transport and storage.

[0009] A further important advantage of the present invention lies in that it reduces the quantity and dimensions also of the packaging, since the component parts have reduced overall dimensions and are also compact.

[0010] A further important advantage of the present invention is represented by the fact that it requires only a few simple operations for assembly, as described below.

[0011] A further important advantage of the present invention is represented by the fact that it ensures extreme flexibility during assembly, since the component parts can be assembled in several possible ways, producing finished products that are aesthetically different and can adapt to various furnishing solutions.

[0012] A further important advantage of the present invention lies in that said component parts can be interchanged via a few simple operations, in order to create different solutions.

[0013] A further important advantage of the present invention lies in that it is lightweight and transparent, producing a "suspended bed effect" thanks to the use of elements resting on the floor that are preferably made of transparent material such as glass.

[0014] These and further direct and complementary objects are achieved by the new type of bed structure, which can be dismantled into elements with reduced

overall dimensions, comprising substantially flat elements resting on the floor and suitable for being rested edgewise and square to the floor, and a perimeter frame on which one or more elements supporting the mattress will then be rested, said perimeter frame in turn comprising one or more substantially linear sections, in the shape of a channel or an inverted U, engaging in one side of said flat elements resting on the floor.

[0015] According to a first embodiment of the invention, said flat resting elements are made of a glass sheet, preferably transparent, in order to produce a bed structure that creates a "suspended bed effect".

[0016] Said perimeter supporting frame can also comprise means for positioning and securing a mattress base, for example of the known type, consisting of wooden slats or other analogous elements.

[0017] According to the invention, the new bed structure may comprise, as an alternative to the mattress base of known type, a board suitable for being rested and secured on said perimeter supporting frame and on which the mattress can be directly or indirectly placed.

[0018] Said board will in turn be dismountable, i.e. comprising one or more substantially flat panels suitable for being joined and secured to one another. Said flat panels preferably comprise through slots distributed over their surface, suitable for permitting transpiration, and can have a greater surface extension than the surface defined by the perimeter supporting frame. In this way, said panels protrude from said perimeter supporting frame by at least one perimeter band.

[0019] Said protruding perimeter band can be decorated, for example with painted or printed motifs, with through slots or incisions in the form of graphic symbols, ideograms, alphanumeric characters, etc.

[0020] The characteristics of the new dismountable bed structure will be better clarified by the following description with reference to the drawings attached by way of non-limiting example.

[0021] Figure 1 shows a plan view of the new dismountable bed structure, while figure 2 schematises a vertical section of the bed structure.

[0022] Figure 3 shows a side view of the new bed structure.

[0023] Figures 4 and 5 show two three-dimensional views of the new bed structure according to two possible embodiments.

[0024] Figure 6 shows a plan view of the mattress supporting board (P), while figure 7 shows a plan view of the new bed structure with mattress supporting board (P) on top.

[0025] Figure 8 shows a side view of the new bed structure with board (P) on top for resting a mattress (M) and provided with headboard (T).

[0026] The new dismountable bed structure comprises substantially flat supporting elements (E) and one or more substantially linear sections (S1) forming at least the perimeter supporting frame (S) on which one or more supporting elements (P) of the mattress (M) will be rested.

[0027] Said supporting elements (E), in particular, are preferably flat sheets or panels square or rectangular in shape, i.e. with two opposite sides (E1) longer than the other two opposite sides (E2).

[0028] Said flat supporting elements (E) are suitable for being rested on the ground edgeways, i.e. square to the floor, on their long side (E1), as shown for example in Figure 4, or on their short side (E2), as shown for example in Figure 5, preferably via the interposition of suitable feet or inserts, for example made of rubber.

[0029] Said perimeter supporting frame (S) therefore comprises one or more sections (S1), substantially in the shape of a channel or an inverted U, engaging with the sides (E3) of said flat supporting elements (E), secured to said perimeter supporting frame (S) by fixing means (F).

[0030] Said sections (S1) are secured together to form said perimeter supporting frame (S) in a removable or non-removable manner.

[0031] As shown in the figures, said flat supporting elements (E) are uniformly distributed along said perimeter supporting frame (S), preferably at least one for each side of said perimeter supporting frame (S), for example near each corner (S2), and wherein each of said elements (E) has longitudinal dimensions shorter than the length of one side of the frame (S). In this way, the space below the perimeter frame (S) remains at least partially visible.

[0032] Furthermore, in the preferred solution, said supporting elements (E) are made of a transparent material, for example glass, so as to create a "suspended effect" bed.

[0033] Said supporting elements (E) can be distributed in various ways along said sections (S1) of the perimeter frame (S), without prejudice to the stability of the structure.

[0034] Assembly/disassembly of the new bed structure is therefore very rapid as it only requires engagement/disengagement of said supporting elements (E) in/from said U-shaped sections (S1) via said fixing means (F) which can for example comprise screws inserted and tightened in through holes provided in said sections (S1).

[0035] Said flat supporting elements (E) can be made preferably of glass sheet, transparent or opaque, or wood or another suitable material.

[0036] According to the preferred embodiment of the invention, the new bed structure comprises a board (P) suitable for being rested and secured on said perimeter supporting frame (S) and on which the mattress (M) can be directly or indirectly placed.

[0037] Said board (P) can in turn be disassembled, i.e. comprise one or more flat panels (P1, P2) suitable for being joined and secured to one another and provided with through slots (P3) distributed over their surface.

[0038] As shown in figure 7, said board (P) can have a larger surface than the surface defined by the perimeter supporting frame (S) so that it protrudes from said perimeter supporting frame (S) with a perimeter band (P4)

which can be decorated in various ways, for example with flowers, symbols, animals, persons, etc.

[0039] The overall dimensions of the new bed structure fully disassembled are therefore compact and substantially two-dimensional, due to the overall dimensions of said perimeter frame (S), of said flat supporting elements (E) and of said board (P), all having a substantially flat development and a thickness of a few centimetres.

[0040] Therefore, with reference to the preceding description and the accompanying drawings, the following claims are made.

Claims

1. Bed structure comprising floor supporting elements (E) and a perimeter supporting frame (S) for supporting elements for mattress(es) (M), **characterised in that** said floor supporting elements (E) are substantially flat and have at least one side (E1, E2) resting on the floor and at least one opposite side (E3) suitable for being secured to said supporting frame (S), in turn comprising one or more sections (S1) substantially in the form of an inverted U for the engagement of said side (E3) of said supporting elements (E).
2. Bed structure according to claim 1, **characterised in that** said supporting elements (E) are made of a glass sheet.
3. Bed structure according to claims 1, 2, **characterised in that** said supporting elements (E) are uniformly distributed along said perimeter supporting frame (S), at least one for each side of said frame (S).
4. Bed structure according to claims 1, 2, 3, **characterised in that** said supporting elements (E) are arranged on each side in corresponding positions, in the vicinity of each corner of said perimeter supporting frame (S).
5. Bed structure according to claims 1, 2, 3, 4, **characterised in that** said supporting elements (E) have a substantially rectangular shape, with two opposite sides (E1) longer than the other two opposite sides (E2), and wherein said supporting elements (E) can be rested on the floor with one of said long sides (E1) or with one of said short sides (E2), while the corresponding opposite side (E1, E2) is secured to said perimeter supporting frame (S).
6. Bed structure according to claims 1, 2, 3, 4, **characterised in that** said supporting elements (E) have a substantially square shape.
7. Bed structure according to claims 1, 2, 3, 4, 5 or 6, **characterised in that** said supporting elements (E)

have sides (E1, E2) shorter than the length of each side of said perimeter supporting frame (S).

8. Bed structure according to the preceding claims, **characterised in that** it comprises at least one board (P) suitable for being rested and secured on said perimeter supporting frame (S) for resting of the mattress(es) (M), and wherein said board (P) comprises a plurality of through holes or slots (P3) suited to ensure transpiration. 5 10
9. Bed structure according to claim 8, **characterised in that** said board (P) has surface dimensions greater than the surface dimensions defined by said perimeter frame (S), so as to protrude beyond said perimeter frame (S) with a perimeter band (P4). 15
10. Bed structure according to claim 9, **characterised in that** said protruding perimeter band (P4) of said board (P) is decorated with painted, engraved or carved motifs. 20
11. Bed structure according to claim 8, 9, 10, **characterised in that** said board (P) comprises two or more flat panels or sheets (P1, P2) arranged side by side and joined. 25

30

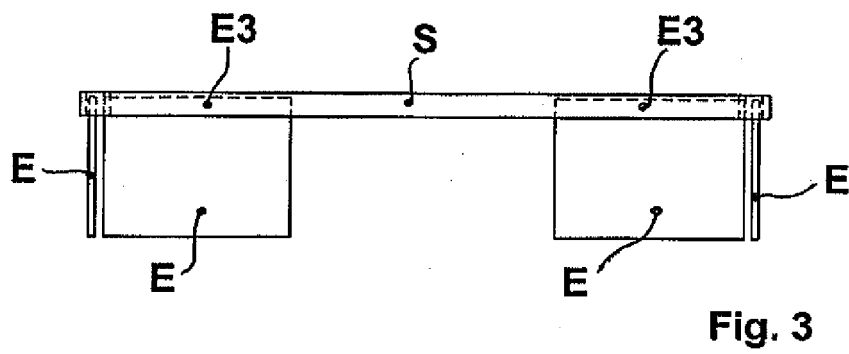
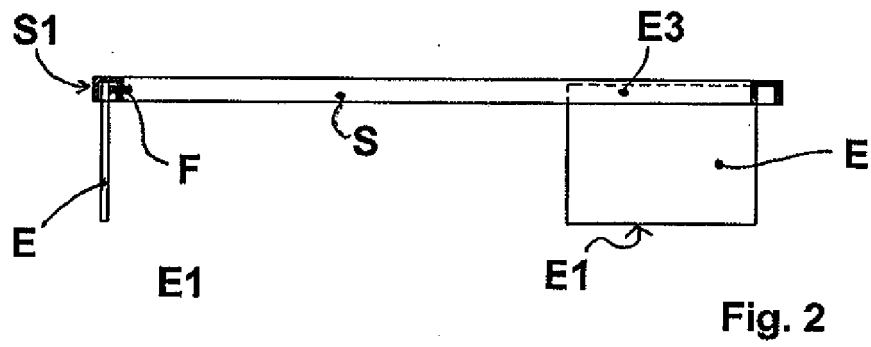
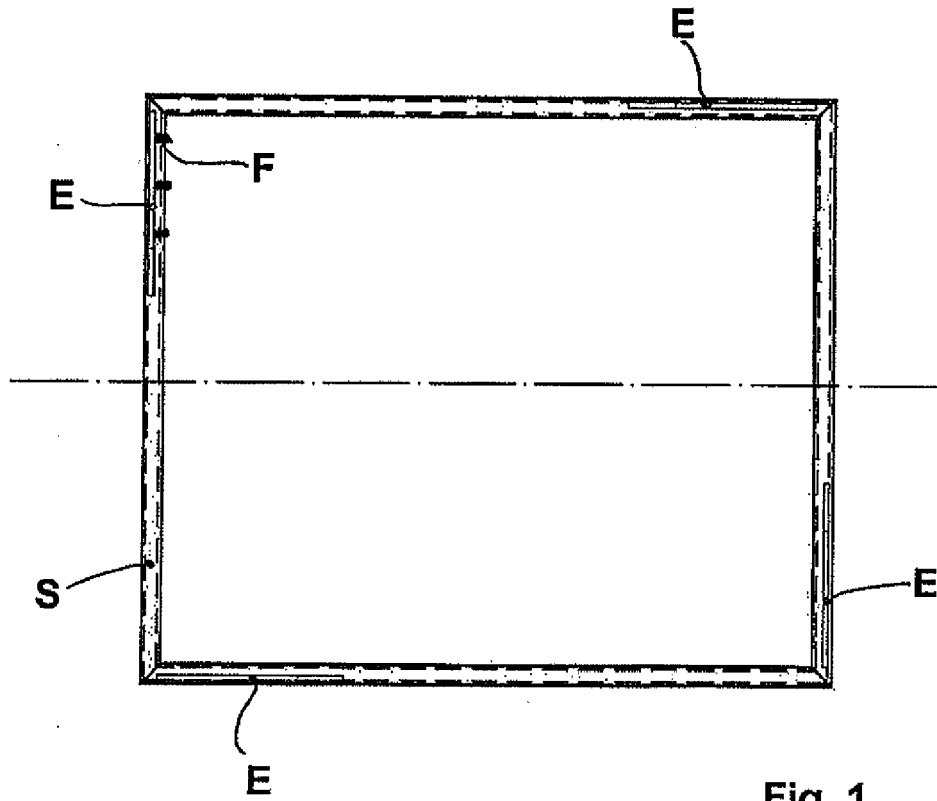
35

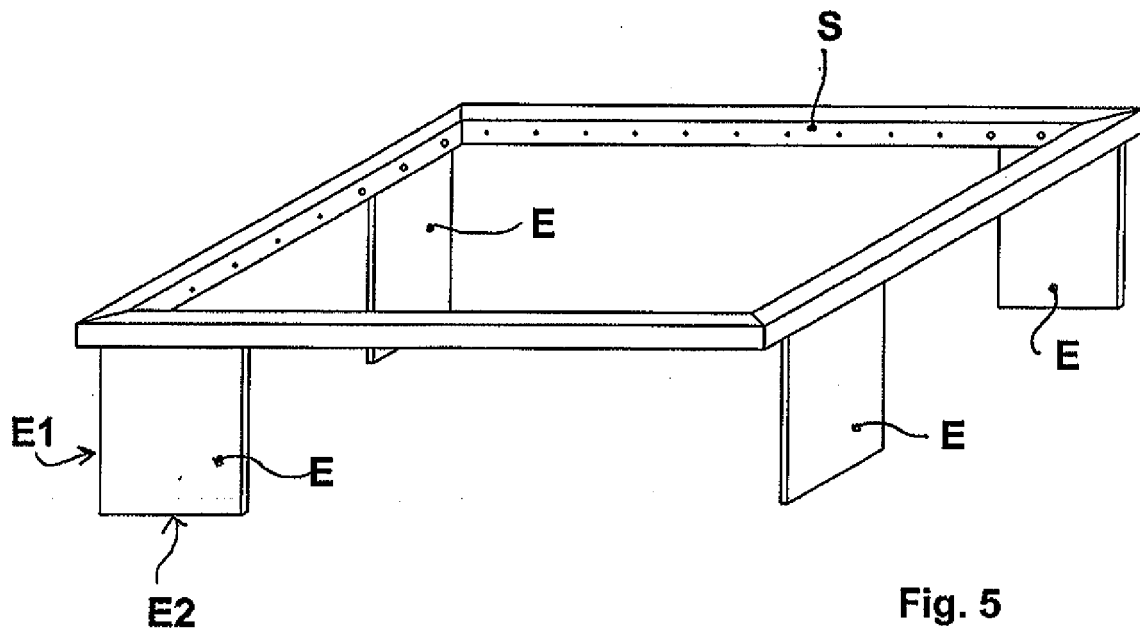
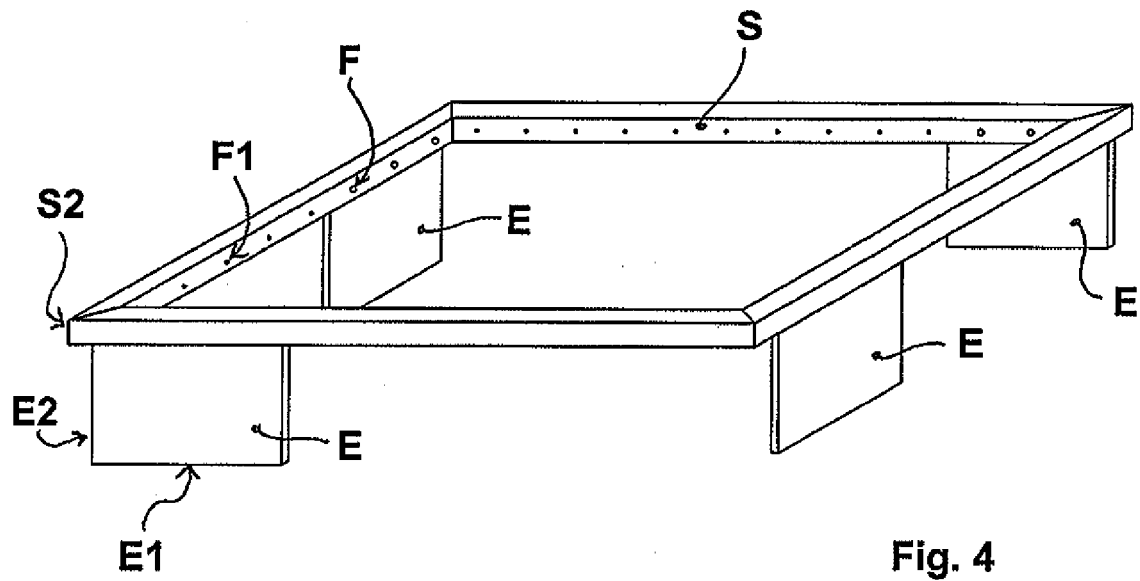
40

45

50

55





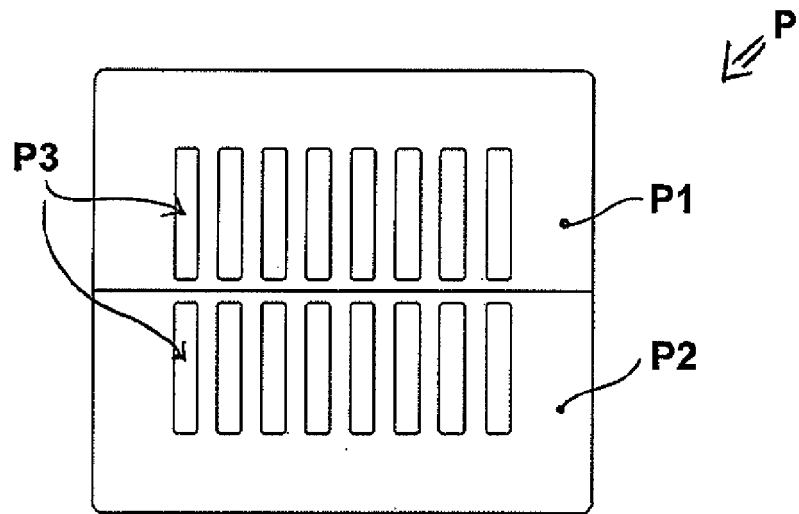


Fig. 6

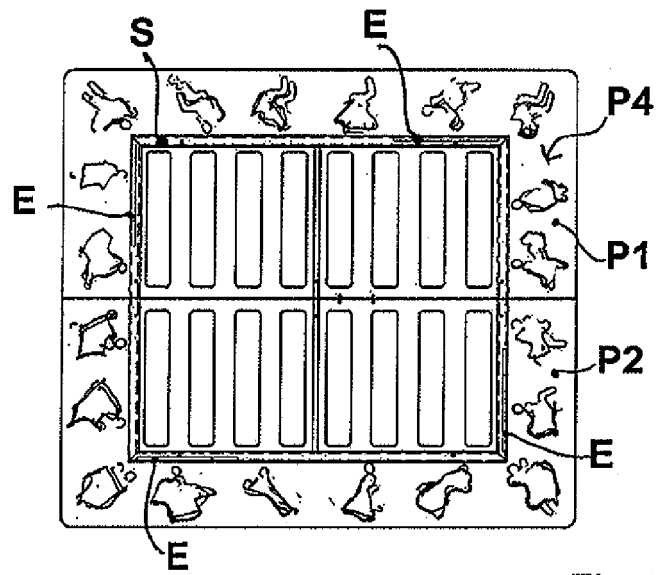


Fig. 7

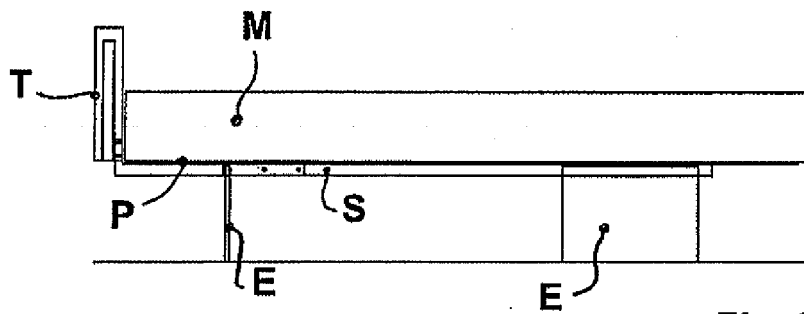


Fig. 8