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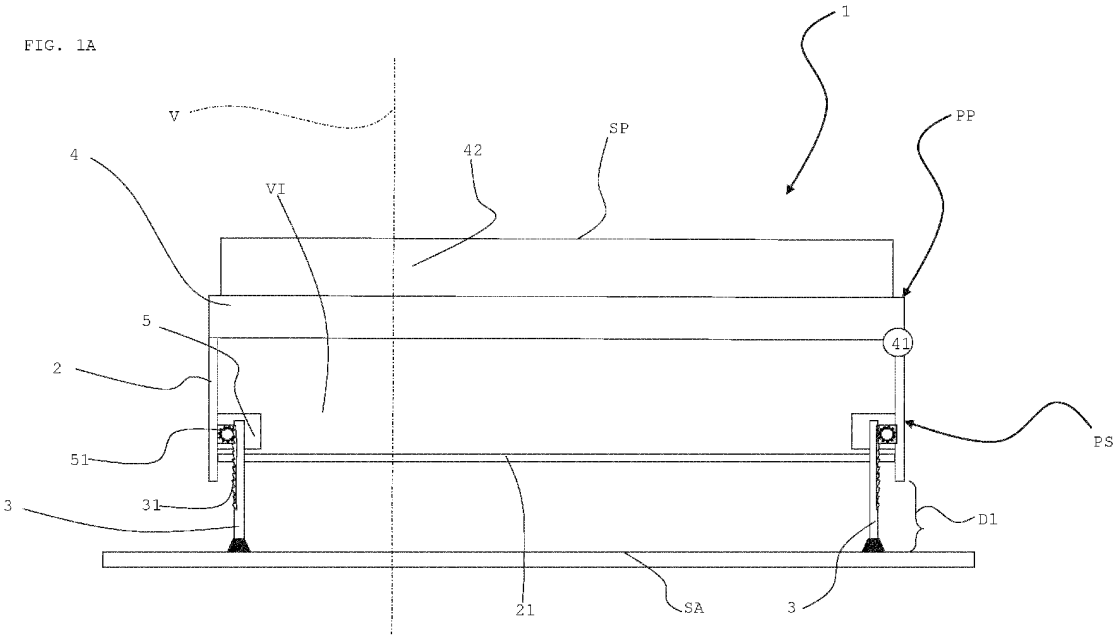
(54) **A FURNISHING OBJECT COMPRISING A MOVABLE CONTAINER**

(57) A furnishing object (1), comprises: a container (2), defining an interior volume (VI) in which objects are housed and comprising a back wall (21), spaced an operative distance from a support surface (SA) of the furnishing object (1), along a vertical direction (V) parallel to the direction of the weight force; a plurality of supports (3), extending along the vertical direction and configured to support the object (1) on the support surface (SA); a laying portion (4), disposed along the vertical direction (V), above the container (2). The pose portion (4) is movable between a pose position (PP), wherein access to the inner volume (VI) of the container from the outside is inhibited, and an access position (PA), wherein the pose portion (4) is at least partially spaced along the vertical direction (V) relative to the container (2). The container (2) is movable between a raised position (PS), wherein the operating distance is equal to a first value (D1), and a lowered position (PA), wherein the operating distance is equal to a second value (D2), which is smaller than the first value (D1), by means of an actuation assembly.

FIG. 1A



EP 3 991 606 A1

FIG. 1B

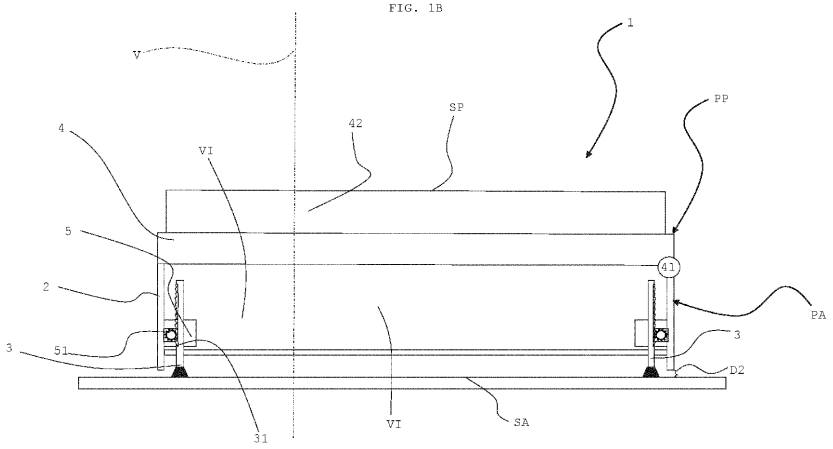


FIG. 1C

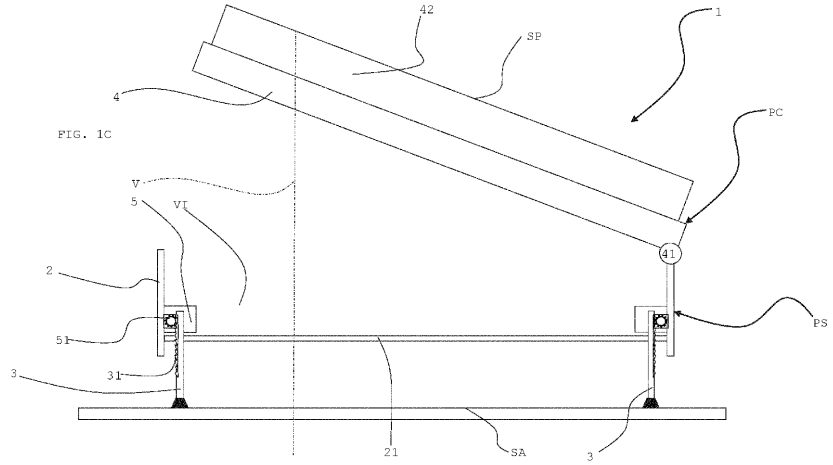
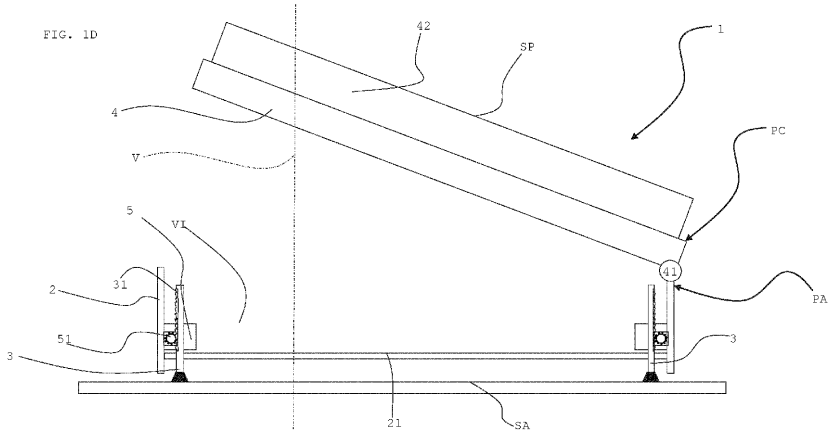


FIG. 1D



Description

[0001] This invention relates to a furnishing object and a method for using the furnishing object. In particular, a furnishing object is an object used in a home, such as, for example, a bed or a sofa.

[0002] In particular, the invention is intended for those furnishing objects which are also equipped with compartments for placing objects and the weight of which, once they are inserted in the corresponding compartment, considerably increase the overall weight of the object, making its movement very complex for an average user.

[0003] Moreover, most times, these furnishing objects position the containment compartments in zones of the object which makes difficult the activities for cleaning the surface on which the object rests.

[0004] One significant example concerns the well known divan bed. In such cases, in order to obtain an adequate storage space, without having a bed or a sofa which is too high, use is made of the space between the base of the bed slats and the floor. Said space is occupied by a drawer which defines the container of objects. Said drawer is therefore very close to the floor and does not allow the insertion of cleaning objects such as brooms, brushes or tools for wiping a cloth on the floor.

[0005] The need to clean under the bed is currently resolved by first removing all the objects from the drawer and, secondly, also removing the bottom of the drawer, so as to have access to the floor. It is clear that this activity is time and energy-consuming.

[0006] Moreover, in the rare case in which the user is able to move the bed on the floor without removing the objects from the drawer, it is in any case necessary to have a free space in the room which is at least equal to the size of the bed, in such a way as to render accessible the entire part of the floor which was previously under the bed. This situation is decidedly uncommon in the context of modern homes, which will increasingly lead to a careful optimisation of the spaces.

[0007] Solutions for lifting a container are known from the following patents: ITUB20123780A1, WO2018087672A1 and US907342A. All these patent documents have the drawback of creating spaces for cleaning the area below the bed which is very inconvenient and, above all, dangerous, since they always interfere with a lifting path of the container.

[0008] The aim of the invention is to provide a furnishing object and a method for using it which overcome the above-mentioned drawbacks of the prior art.

[0009] Said aim is fully achieved by the furnishing object and the method according to the invention as characterised in the appended claims.

[0010] According to an aspect of the invention, a furnishing object is provided.

[0011] The furnishing object comprises a container. The container defines an inner volume in which objects can be housed. The container comprises a bottom wall. According to an embodiment, the furnishing object comprises a lower wall, facing directly towards a support surface of the furnishing object and, which, in some embodiments, can coincide with the bottom wall of the container. When the bottom wall of the container coincides with the lower wall of the furnishing object, the bottom wall is spaced by an operating distance along a vertical direction, parallel to the direction of the weight force, from a support surface of the furnishing object. Otherwise, the operating distance is defined by the distance between the lower wall of the furnishing object and the support surface of the furnishing object.

[0012] The object comprises a plurality of supporting elements. Each support is interposed, along the vertical direction, between the container and a support surface of the furnishing object. In other words, according to an embodiment, said supporting elements are the feet of the object, which are rested on the floor.

[0013] According to a preferred embodiment, the object comprises a pose portion. The pose portion is positioned along the vertical direction, above the container. The pose portion includes a pose surface, designed to allow a user to rest on the furnishing object. For example, the pose portion is the group comprising the slats and the mattress and the pose surface is the upper surface of the mattress, on which the user rests.

[0014] According to an embodiment, the pose portion is movable between a pose position, wherein access to the inner volume of the container from the outside is inhibited, and an access position, wherein access to the inner volume of the container is allowed. According to an embodiment, in the access position, the pose portion is at least partly spaced in the vertical direction with respect to the container, to allow a user to insert or remove objects from the container.

[0015] Advantageously, the container (furnishing object) is movable between a raised position, wherein the operating distance is equal to a first value, and a lowered position, wherein the operating distance is equal to a second value, which is smaller than the first value. Moreover, according to a preferred embodiment, the object comprises an actuation assembly, connected to the container for moving it between the raised position and the lowered position. The actuation assembly is also connected to said plurality of supports, for moving the container with respect to the plurality of supports.

[0016] According to yet another embodiment of the invention, the entire furnishing object, in its raised position, is movable between the raised position, wherein the operating distance is equal to a first value, and a lowered position, wherein the operating distance is equal to a second value, less than the first value.

[0017] Therefore, in order to better illustrate the above, if the container delimits the furnishing object below, the operating distance which defines the raised and lowered position can be considered from the bottom wall of the container, whilst if the container does not delimit the furnishing object below, the operating distance must be considered with respect to the lower surface of the furnishing

object.

[0018] These features allow the furnishing object to be lifted on request to a distance from the floor such as to allow an introduction of the cleaning objects and therefore clean the floor without any effort and without the need to have a great deal of space in the room.

[0019] According to an embodiment, the second value is between 1 cm and 10 cm, preferably between 1 cm and 7 cm, even more preferably between 1 cm and 5 cm.

[0020] In other words, the furnishing object (the bed) can be lifted entirely. The furnishing object can be lifted with respect to said one or more feet, which remain fixed with the surface on which the furnishing object rests.

[0021] It should be noted that the side walls of the container, according to a preferred embodiment, define the side walls of the furnishing object. According to an embodiment, the side walls of the furnishing object are spaced, also in the lowered position, from the ground and the furnishing object rests on the feet. In other words, the second distance is, according to an embodiment, greater than zero. According to other embodiments, the second distance is equal to zero and the side walls of the container rest on the ground, defining the side walls of the furnishing object and helping the feet in supporting the furnishing object.

[0022] According to an embodiment, the supports are separate from the side surfaces of the container and are movably connected to them.

[0023] It should be noted that the solution claimed, compared with the prior art, allows access to the container even when the furnishing object is in a raised position, that is, during the cleaning step.

[0024] According to an embodiment, the container is movable by translating along a lifting direction, parallel to the vertical direction.

[0025] This embodiment is further advantageous, since the movement along a direction parallel to the weight force prevents the objects inside the container from overturning.

[0026] According to an embodiment, the container is movable by translating relative to said plurality of supports along the lifting direction. In other words, the plurality of support remains stationary with respect to the floor and the container moves with respect to the plurality of supports. In this way, the object is even more advantageous, since the supporting point of the object remains stationary and there is therefore no risk of damaging the floor by repeatedly resting an object with a significant weight.

[0027] According to an embodiment, each support extends along the lifting direction and comprises a respective gear profile.

[0028] According to an embodiment, the actuation assembly comprises at least one rotary motor. The actuation assembly comprises a transmission system. The transmission system comprises a plurality of gears, each coupled to the gear profile of a corresponding support of said plurality. This allows a rotation of the rotary motor to be transformed into a translation of the container along the lifting direction.

[0029] According to an embodiment, the container has a rectangular shape in a plane perpendicular to the vertical direction. According to this embodiment, the plurality of supports is located with a support for each vertex of the container. According to an embodiment, the actuation assembly comprises an additional rotary motor. In that case, the actuation assembly comprises an additional transmission system.

[0030] According to the embodiment with two rotary motors, the transmission system comprises a first pair of gears, respectively coupled to the gear profiles of a first pair of supports. Moreover, the additional transmission system comprises a second pair of gears, respectively coupled to the gear profiles of a second pair of supports. This considerably simplifies the transfer of the motion of the rotary motors, which are positioned close to the supports on which the gears are positioned. This prevents a single transmission system which is very complex.

[0031] The object comprises a control unit. The control unit is designed to control the actuation assembly. The control unit is configured to control a control object. The control object is configured for sending command signals to the control unit, preferably by emitting radio waves, Bluetooth, infrared, wireless or other remote communication technologies. The control unit is programmed to generate control signals, based on the command signals. In that way, it is able to instruct the movement unit to move the container between the raised position and the lowered position, in accordance with the commands given remotely by the user.

[0032] According to an embodiment, said plurality of supports includes a first support and a second support. The first and the second supports include a corresponding first hinge and second hinge. According to an embodiment, the container rotates about the first and the second hinge between the raised position and the lowered position.

[0033] According to an embodiment, the furnishing object comprises a holding object. The holding object is positioned inside the container. The holding object is configured to keep any objects contained in the inner volume of the container stationary in the raised position of the container. For example, but without limiting the scope of the invention, the holding object is a belt.

[0034] According to an embodiment, the furnishing object is a bed or a sofa.

[0035] According to an aspect of the invention, the invention provides a method for using a furnishing object. The furnishing object used is a furnishing object according to one or more of the features described in the invention.

[0036] The method comprises a step of supporting the furnishing object on the support surface using the plurality of supports.

[0037] The method comprises a step of moving the pose portion between a working position, wherein access

to the inner volume of the container is inhibited, and an access position, wherein the inner volume of the container is accessible from the outside, that is to say, wherein the pose portion is at least partly raised with respect to the container, to allow a user to insert or remove objects from the container.

[0038] The method comprises a step of moving the container, preferably by means of an actuation assembly, between a raised position, wherein the operating distance is equal to a first value, and a lowered position, wherein the operating distance is equal to a second value, which is smaller than the first value.

[0039] According to an embodiment, the step of moving the container is a translation along a lifting direction, parallel to the vertical direction.

[0040] According to an embodiment, the container translates with respect to said plurality of supports along the lifting direction.

[0041] According to an embodiment, during the step of moving the container, a gear rotates on a gear profile formed on at least one support of said plurality. Preferably, during the step of moving the container, each gear of a plurality of gears rotates on a respective gear profile of a corresponding support of said plurality.

[0042] According to an embodiment, during the step of moving the container, a rotary motor rotates. Moreover, a transmission system transmits the rotation of the rotary motor to (to a first group of gears of) said plurality of gears, which, rotating, move the container along the lifting direction.

[0043] Advantageously, during the step of moving the container, an additional rotary motor rotates. Moreover, an additional transmission system transmits the rotation of the additional rotary motor to (to a second group of gears of) said plurality of gears, which, rotating on respective supports, move the container along the lifting direction.

[0044] The method comprises a control step. During the control step, a control unit receives command signals from a user by means of a command element, which communicates with the control unit preferably remotely and with a wireless communication. The control unit generates control signals in response to the command signals received. The control signals represent the movements and/or the rotations of the actuation assembly.

[0045] According to an embodiment, the step of moving the container comprises a step of rotating the container about a first and/or a second hinge, positioned respectively at a first and a second support of said plurality.

[0046] According to an embodiment, the method comprises a holding step, wherein a maintaining element keeps the objects inside the container stationary during rotation of the container between the lowered position and the raised position.

[0047] These and other features will become more apparent from the following detailed description of a preferred embodiment, illustrated by way of nonlimiting example in the accompanying drawings, in which:

- Figures 1A, 1B, 1C and 1D schematically illustrate a cross section of a furnishing object according to the invention, in a first, a second, a third and a fourth operating configuration, respectively;
- Figure 2 is a schematic side view of the furnishing object illustrated in Figure 1A;
- Figures 3A and 3B schematically illustrate a cross section of an embodiment of the furnishing object, in a first and a second operating configuration, respectively;
- Figures 4A and 4B schematically illustrate a cross section of a further embodiment of the furnishing object, in a first and a second operating configuration, respectively.

[0048] With reference to the accompanying drawings, the numeral 1 denotes a furnishing object. The furnishing object 1, in the example described below, is a bed. It is clear, however, by the other parts of the description that the bed is only an example of a furnishing object.

[0049] The bed 1 comprises a pose portion 4. The pose portion 4 comprises a mattress 41. The pose portion 4 comprises a support element, for supporting the mattress. Said supporting element may be a mesh or slats or any other element which has a strength such as to support the weight of a user.

[0050] The pose portion comprises a pose surface SP, for example defined by the surface of the mattress facing towards the outside, where the user lies or sits.

[0051] The pose portion 4 comprises a switching element 41. In particular, the pose portion 4 is movable between a pose position PP PA and an access position PC. According to an embodiment known to an expert in the trade, the switching element 41 is a hinge element. For this reason, the pose portion 4 is configured to rotate about the switching element 41, that is to say, about a hinge-shaped element, between the pose position PP and the access position PC.

[0052] The bed 1 comprises a container 2. The container 2 is configured to contain objects of various types. The container 2 defines an inner volume VI, in which the objects can be housed.

[0053] The container 2 is positioned, along a vertical direction parallel to the direction of the weight force, between the floor SA and the pose portion 4.

[0054] The container 2 extends preferably under the entire bed 1.

[0055] In particular, the internal volume VI is delimited by the following walls:

- a bottom wall 21;
- four side walls, two perpendicular to a longitudinal direction L and two perpendicular to a transversal direction T, perpendicular to the longitudinal direction L;
- the supporting element of the pose portion 4, which defines a wall opposite the bottom wall 21.

[0056] According to an embodiment, the bed 1 comprises a plurality of supports 3. The plurality of supports 3 is connected to the container 2. The plurality of supports 3 rests on the floor SA, to support the weight of the bed 1.

[0057] Each support 3 extends, along the vertical direction V, between a first end and a second end, the latter in contact with the floor SA.

[0058] According to a preferred embodiment, the bed 1 comprises four supports 3. However, for particularly heavy beds, there is an increase in the number of supports up to an indefinite number and, in the case of particularly lightweight beds, a smaller number of supports may be planned. In this description, however, we will describe the most common solution, including four supports 3.

[0059] According to this embodiment, each support 3 is located at a corresponding vertex of the bed which, as is known, is rectangular in shape. Preferably, the supports 3 are positioned inside a perimeter defined by the container 2, in such a way that the supports are not visible from the outside. For this reason, according to this embodiment, the bottom wall 21 of the container 2 comprises openings for allowing the passage of the supports 3. According to other embodiments, the supports 3 are located outside the perimeter defined by the container 2, and are therefore visible from the outside of the bed 1.

[0060] According to an embodiment, each support 3 comprises a gear profile 31. The gear profile 31 is preferably a toothed profile. In other words, according to a preferred embodiment, each support defines a rack, configured for coupling with a pinion.

[0061] According to an embodiment, the device comprises an actuation assembly. The actuation assembly comprises a motor 5, preferably rotary. The actuation assembly comprises a transmission system 51. The actuation assembly is connected to the supports 3 and to the container 2. In other words, the supports are connected to the container by means of the actuation assembly, which forms, to all intents and purposes, a mobile connection. The transmission system 51 is interposed, along a kinematic movement chain, between the motor 5 and the supports 3, in such a way as to transmit the motion of the motor 5 to the supports 3 and/or to the container 2.

[0062] For this reason, the container 2 is movable between a raised position PS, wherein the bottom wall 21 is spaced from the floor SA (or from the second end of the supports 3) by a first value D1, and a lowered position, wherein the bottom wall 21 is spaced from the floor SA (or from the second end of the supports 3) by a second value D2. The first value D1 is greater than the second value D2.

[0063] Therefore, the transmission system 51 is configured for transmitting the rotation of the motor 5 which is converted into a translation along the vertical direction V of the container 2 between the raised position PS and the lowered position PA.

[0064] In particular, according to an embodiment, the actuation assembly comprises an additional motor 5', which is also preferably rotary. Moreover, according to this embodiment, the actuation assembly comprises an additional transmission system 51'.

[0065] The transmission system 52 comprises a transmission shaft 52. Moreover, the additional transmission system 51', when present, comprises an additional transmission shaft 52'.

[0066] The actuation assembly (the transmission system 51 and the additional transmission system 51') comprises a plurality of gears, each configured for coupling with a corresponding gear profile 31 of a corresponding support 3.

[0067] In particular, in the example embodiment, the transmission system 51 comprises a first gear 511 and a second gear 512, whilst the additional transmission system 51' comprises a third gear 511' and a fourth gear 512'.

[0068] The first gear 511 is keyed to the transmission shaft 52 at a relative first end. The second gear 512 is keyed to the transmission shaft 52 at a relative second end, opposite the first end. Preferably, for reasons of dimensions, the motor 5 is interposed between the first and the second end of the transmission shaft 52.

[0069] The first gear 511 and the second gear 512 are coupled to the gear profile of a first support and of a second support, respectively.

[0070] The third gear 511' is keyed to the additional transmission shaft 52' at a relative first end. The fourth gear 512' is keyed to the additional transmission shaft 52' at a relative second end, opposite the first end. Preferably, for reasons of dimensions, the additional motor 5' is interposed between the first and the second end of the additional transmission shaft 52'.

[0071] The third gear 511' and the fourth gear 512' are coupled to the gear profile of a third support and a fourth support, respectively.

[0072] According to an embodiment, the motor 5 is connected to a side wall of the container 2. Preferably, but not necessarily, the motor 5 is connected to a side wall of the container 2 which is parallel to the transversal direction T, that is, on the less extended side wall, in such a way as to reduce the length of the transmission shaft 52 and therefore the bending applied on it. Moreover, in the presence of the additional motor 5', the latter is connected to the side wall of the container 2 opposite the side wall where the motor 5 is connected.

[0073] Further embodiments of the furnishing object which lie within the scope of the invention are described below.

[0074] In particular, according to an embodiment, each support 3 has a telescopic shape. For this reason, each support 3 is movable between an extracted position, where the support has a first extension along the vertical direction V, and a retracted position, where the support 3 has a second extension along the vertical direction V, less than the first extension. The extracted position of the supports 3 corresponds to the raised position of the

container 2. The retracted position of the supports 3 corresponds to the lowered position PA of the container 2.

[0075] According to this embodiment, each support comprises a first portion 3A, which is connected with the container 2 preferably to a side wall, on a surface facing towards the inner volume VI. Each support comprises a second portion 3B, which rests on the floor SA.

[0076] The first portion 3A and the second portion 3B slide relative to each other along the vertical direction V, to vary the extension of the respective support 3. For example, each support 3 is a pneumatic, hydraulic piston, wherein the first portion 3A is a cylinder and the second portion 3B is a piston, or vice versa.

[0077] According to this embodiment, the bed 1 comprises a compressor 55' and/or a pump configured to pump air or oil into the chamber made between the first portion 3A and the second portion 3B, to allow the piston to move relative to the cylinder. Preferably, in this case, too, the bed comprises an additional compressor 55' or an additional pump. According to this embodiment, the compressor 55 (or the pump) supplies the first and the second support whilst the additional compressor 55' (or the additional pump) supplies the third and the fourth support.

[0078] Lastly, there is a further embodiment to allow a movement of the container 2 between the raised position PS and the lowered position PA.

[0079] According to this embodiment, the bed 1 comprises, at the third and fourth supports, a corresponding hinge 56 actuated. The hinge 56 is connected, for example, to the rotary motor 5, to transmit to it a rotation. The first and second support, which are respectively opposite the third and the fourth support, are simply supported, that is to say, mechanical rods having a certain strength which are rigidly connected to the container.

[0080] The third and the fourth support, on the other hand, are connected to the container 2 by means of the respective hinges 56 actuated.

[0081] The motor 5 acts on the hinge to allow a rotation of the container about an axis passing through the hinge 56 actuated. According to this embodiment, however, it is important to provide a fixing of the third and the fourth support to the floor, to prevent, during rotation of the container about the hinges 56 actuated, the bed from falling due to the absence of constraints on the floor. For this reason, the third and the fourth support are fixed to the floor.

[0082] The latter embodiment, even though it includes some drawbacks, such as, for example, the need to fix supports 3 to the floor SA, has, however, the advantage of allowing a much greater vertical excursion of the bed 1, at least in the part where the first and second supports are.

[0083] According to an embodiment, the bed 1 comprises a control unit which is connected to the motor 5 and/or to the additional motor 5'. The control unit is configured to generate control signals for commanding the motor 5 and/or the additional motor 5' in the movement of the container 2 between the raised position PS and the lowered position PA. The bed 1 comprises a remote control unit configured to send remote (short distance) command signals to the control unit. The control unit is programmed to generate the control signals on the basis of the command signals.

[0084] The remote control includes one or more of the following commands:

- moving the container from the lowered position PA to the raised position PB, and vice versa;
- instantaneous interruption of the motion of the actuator;
- setting an inclination of the bed 1 with respect to the horizontal plane. According to an embodiment, the user can enter on the remote control the degrees of inclination and the control unit is programmed for calculating the movements of the motors 5 and 5' in order to obtain the desired inclination.
- inclined along the transversal direction T, which may be useful for helping elderly persons to get out from the bed 1;
- inclination along the longitudinal direction L, for example to facilitate viewing of the television in the room.

[0085] According to an aspect of the invention, the bed 1 comprises a safety sensor 6. The safety sensor 6 prevents the container 1, in its movement between the raised position PS and the lowered position PA, from squashing a user or an object positioned below the container 2.

[0086] In particular, the sensor 6 is configured for detecting the presence of bodies beneath the bottom wall 21 of the container 2. The sensor 6 is preferably connected to the bottom wall 21, on a relative surface facing towards the floor SA.

[0087] According to an example embodiment, the sensor 6 is configured for measuring the distance from the first object located at the front along the vertical direction V in a lowering direction, oriented from the bottom wall 21 to the floor SA. The sensor 6 sends safety signals to the control unit. The safety signals represent a distance measured by the sensor 6. The control unit has access to a value of distance from the floor SA in each position of the container 2. For example, the control unit knows that the trend of the distance from the floor SA of the container 2 with changes in the position of the container 2. For this reason, the control unit is programmed to compare the distance received from the sensor 6 by means of the safety signals with the planned distance. If the distance received from the sensor is less than the planned distance, the control unit is programmed to interrupt the motor 5 and/or the additional motor 5'. The control unit is programmed to restart the lowering when the correspondence between the distance measured by the sensor and the planned distance is detected.

[0088] It should be noted that, according to a preferred embodiment, the control unit is programmed to perform

the comparison and, if necessary, block the motion only in a direction of lowering the container 2, that is, from the raised position to the lowered position PA. On the other hand, if the container 2 moves in a lifting direction, from the lowered position PA to the raised position PS, the control unit prevents this control and therefore allows a user to start cleaning even before the container has reached the raised position PS.

[0089] According to an embodiment, the device comprises a warning device. The warning device is preferably an audio warning device, but it may also be a luminous or vibrational warning device.

[0090] The control unit is connected to the warning device. The control unit is configured to send warning signals to the warning device. In particular, the control unit is configured for sending the warning signals during the movement of the container between the raised position PS and the lowered position PA. In other words, the audio warning device emits a sound, preferably intermittent, when the rotary motor is in motion. This allows users to know when the bed is moving, to avoid any accidents.

Claims

1. A furnishing object (1), comprising:

- a container (2), defining an interior volume (VI) in which objects are housed and comprising a back wall (21), spaced an operative distance from a support surface (SA) of the furnishing object (1), along a vertical direction (V) parallel to the direction of the weight force;
- a plurality of supports (3), extending along the vertical direction and configured to support the object (1) on the support surface (SA);
- a laying portion (4), arranged, along the vertical direction (V), above the container (2) and including a laying surface (SP), configured to allow a user to rest on the furnishing object (1),

wherein the pose portion (4) is movable between a pose position (PP),

wherein access to the inner volume (VI) of the container from the outside is inhibited, and an access position (PA), wherein the pose portion (4) is at least partially spaced along the vertical direction (V) relative to the container (2), to allow a user to insert or remove objects from the container (2),

characterized in that the container (2) is movable between a raised position (PS), wherein the operating distance is equal to a first value (D1), and a lowered position (PA), wherein the operating distance is equal to a second value (D2), which is smaller than the first value (D1),

wherein the furnishing object (1) comprises an actuation assembly, connected to the container (2) to move it between the raised position (PS) and the lowered position (PA).

2. Furnishing object (1) according to claim 1, wherein the container (2) is movable by translation along a lifting direction, parallel to the vertical direction (V).

3. Furnishing object (1) according to claim 2, wherein the container is movable by translation relative to said plurality of supports (3) along the lifting direction.

4. Furnishing object (1) according to claim 3, wherein each support (3) extends along the vertical direction (V) and comprises a respective gear profile (31).

5. Furnishing object (1) according to claim 4, wherein the actuation assembly comprises at least one rotary motor (5) and a transmission system (51), including a plurality of gears (511, 512, 511', 512'), each coupled to the gear profile (31) of a corresponding support (3) of said plurality, for transforming a rotation of the rotary motor (5) into a translation of the container (2) along the lifting direction (V).

6. Furnishing object (1) according to claim 5, wherein the container (2) has a rectangular shape in a plane perpendicular to the vertical direction (V) and wherein the plurality of supports (3) is displaced with one support at each vertex of the container (2), wherein the actuation assembly comprises an additional rotary motor (5') and an additional transmission system (51'), and wherein the transmission system (51) comprises a first pair of gears (511, 512), respectively coupled to the gear profiles (31) of a first pair of bearings (3), and wherein the additional transmission system (51') includes a second pair of gears (511', 512'), respectively coupled to the gear profiles (31) of a second pair of bearings (3).

7. Furnishing object (1) according to any of the preceding claims, comprising a control unit, configured to control the actuation assembly, and a control object, configured to send control signals to the control unit, wherein the control unit is programmed to generate control signals, based on the control signals, to instruct the handling assembly to move the container (2) between the raised position (PS) and the lowered position (PA).

8. Furnishing object (1) according to any of the preceding claims, wherein said plurality of supports (3) includes a first rotating support and a second rotating support, each including a corresponding first hinge and second hinge (56), and wherein the container (2) is rotatable about the first and second hinges (56) between the raised position (PS) and the lowered position (PA).

9. Furnishing object (1) according to claim 8, wherein

the furnishing object (1) comprises a holding object disposed within the container and configured to hold stationary, in the raised position (PS) of the container (2), any objects contained in the inner volume (VI) of the container (2).

10. A method for using a furniture object (1), the furniture object (1) comprising:

- a container (2), defining an interior volume (VI) in which objects are housed and comprising a back wall (21), spaced from a support surface (SA) of the furniture object (1) by an operating distance;
- a plurality of supports (3), each at least partially interposed, along a vertical direction (V) parallel to the weight force, between the container (2) and the support surface (SA);
- a laying portion (4), disposed along the vertical direction (V), above the container (2) and including a laying surface (SP), to allow a user to rest on the furnishing object (1),

the method including the following steps:

- resting the furniture object (1) on the support surface (SA) by means of the plurality of supports (3);
- moving the laying portion (4) between a laying position (PP), wherein access to the internal volume (VI) of the container (2) is inhibited, and an access position (PC), wherein the laying portion (4) is at least partially raised relative to the container (2), to allow a user to insert or remove objects from the container (2);
- moving the container (2), by means of an actuation assembly, between a raised position (PS), wherein the operating distance is equal to a first value (D1), and a lowered position (PA), wherein the operating distance is equal to a second value (D2), which is smaller than the first value (D1).

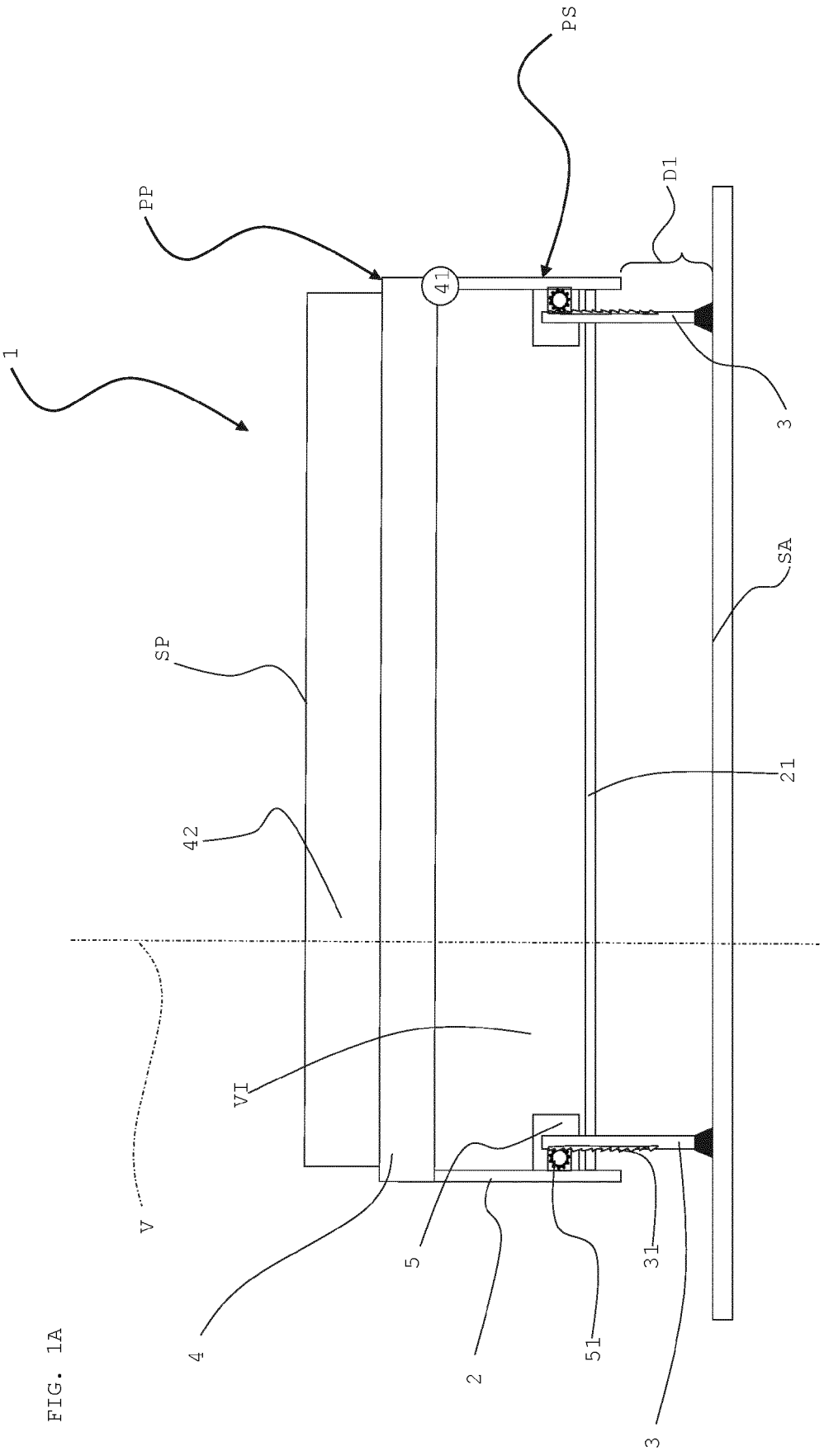


FIG. 1A

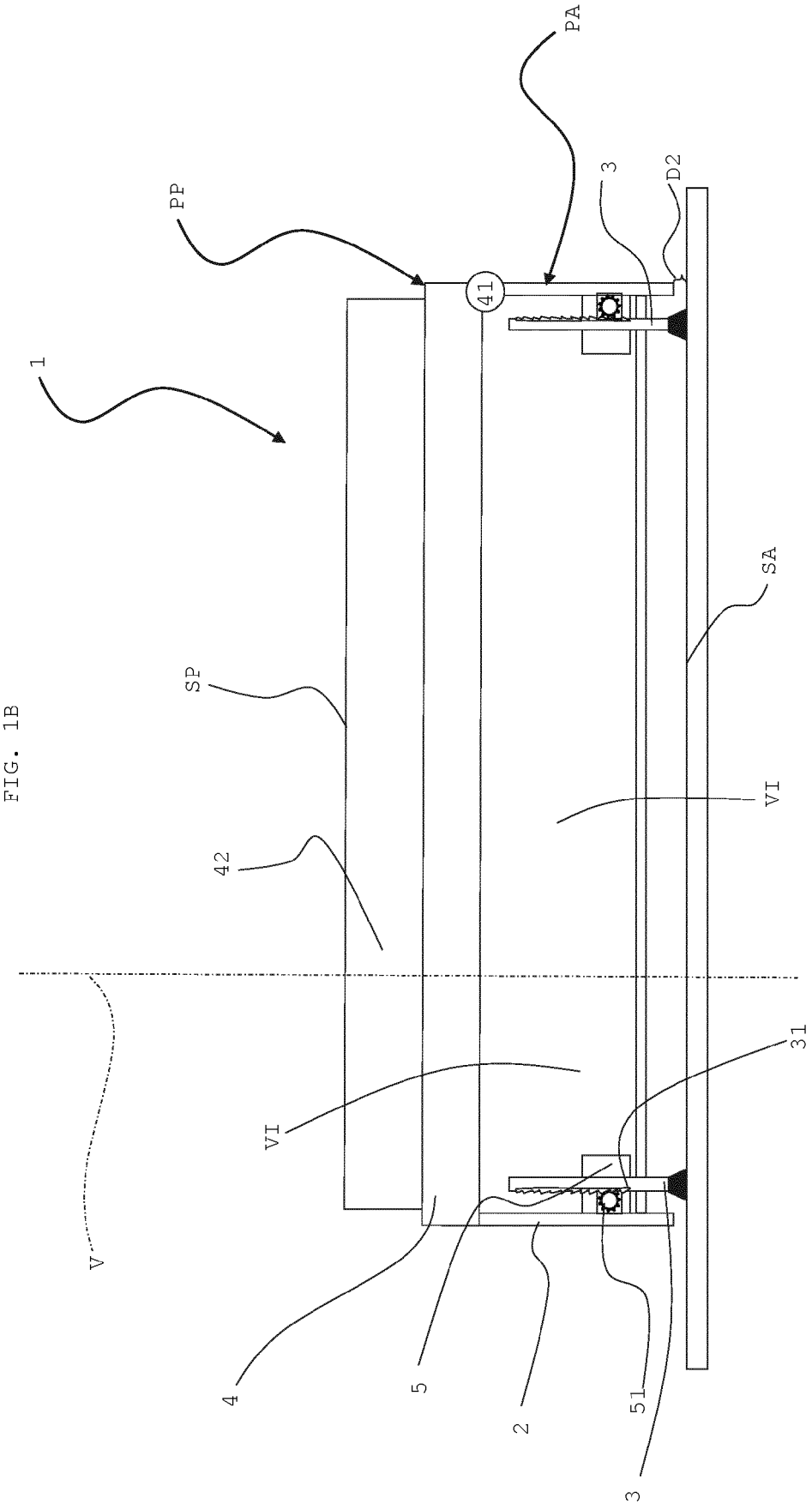


FIG. 1B

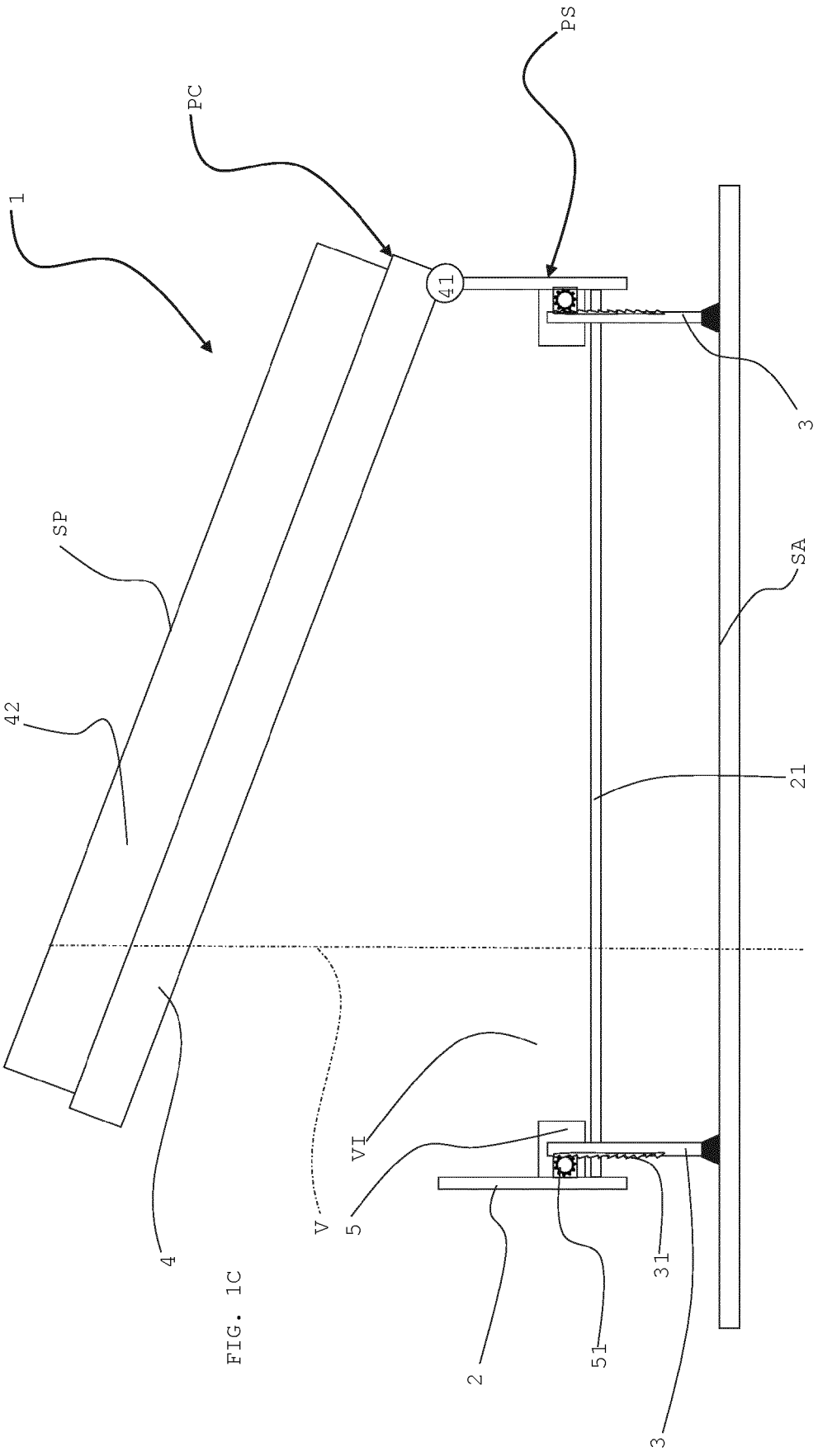


FIG. 1C

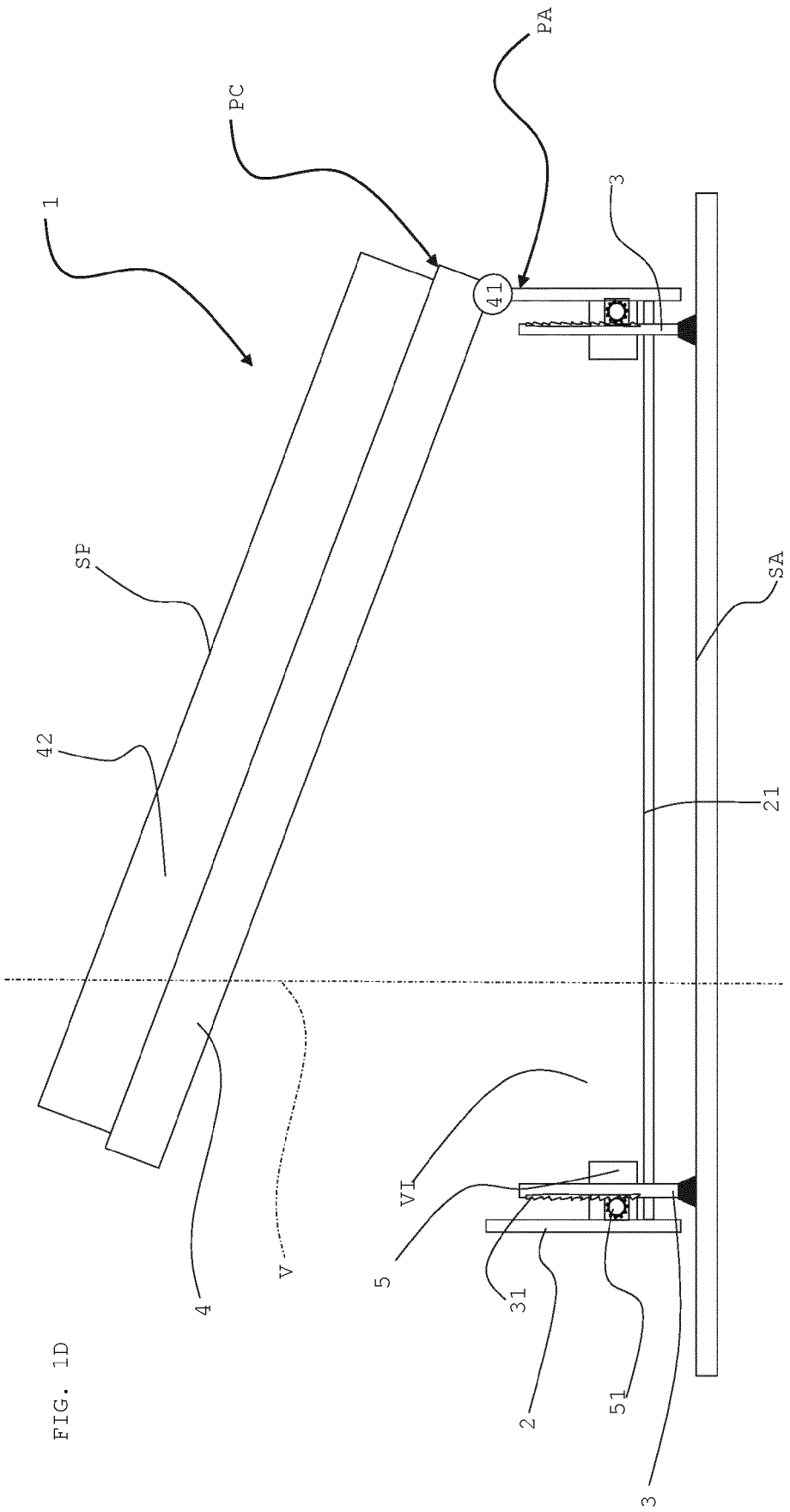


FIG. 1D

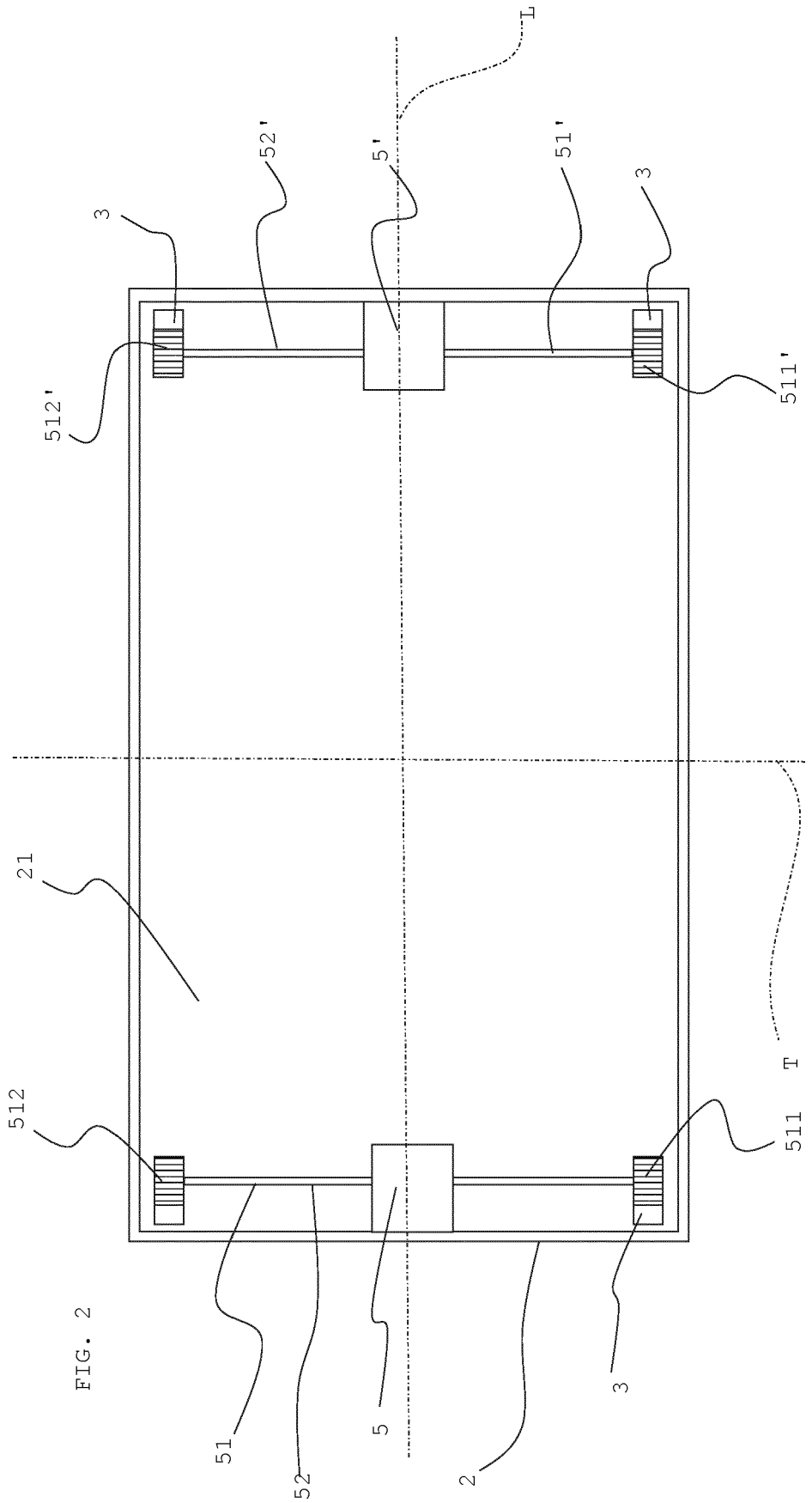


FIG. 2

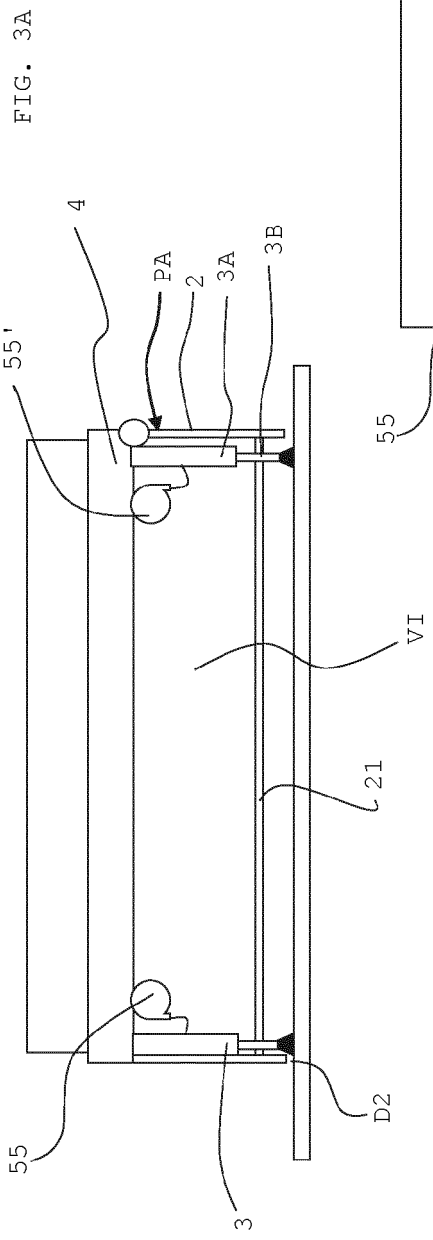


FIG. 3A

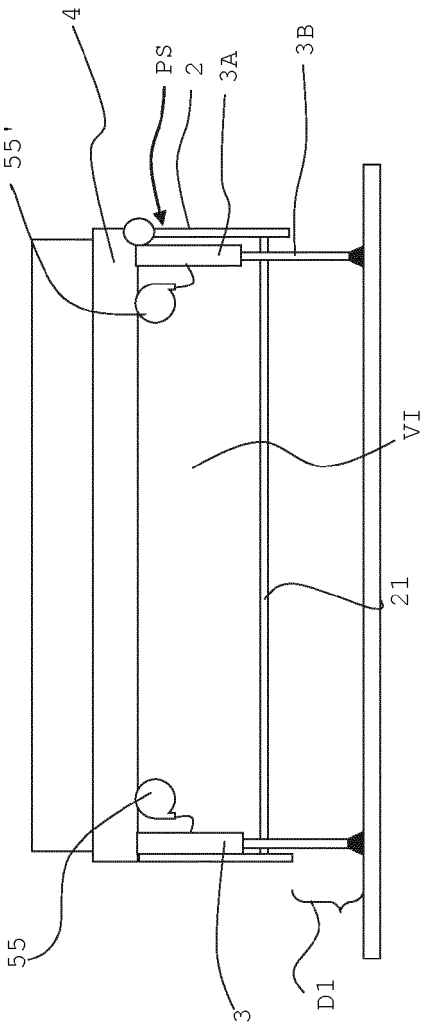


FIG. 3B

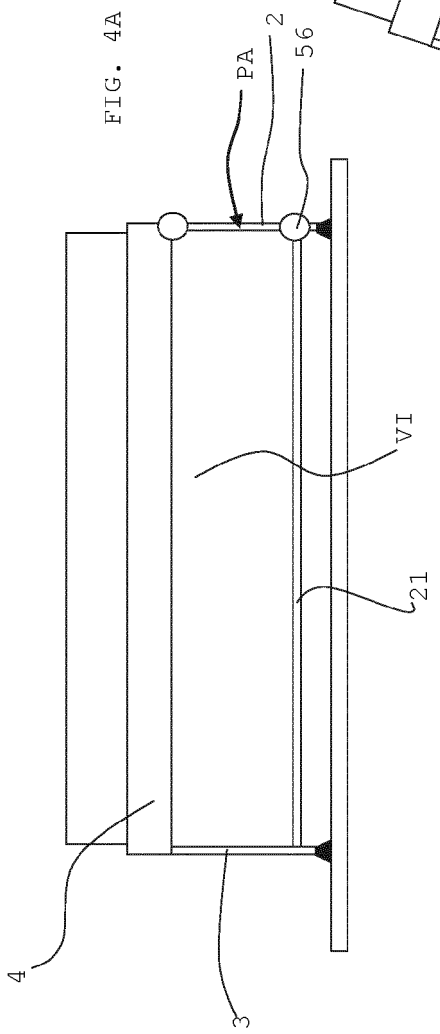


FIG. 4A

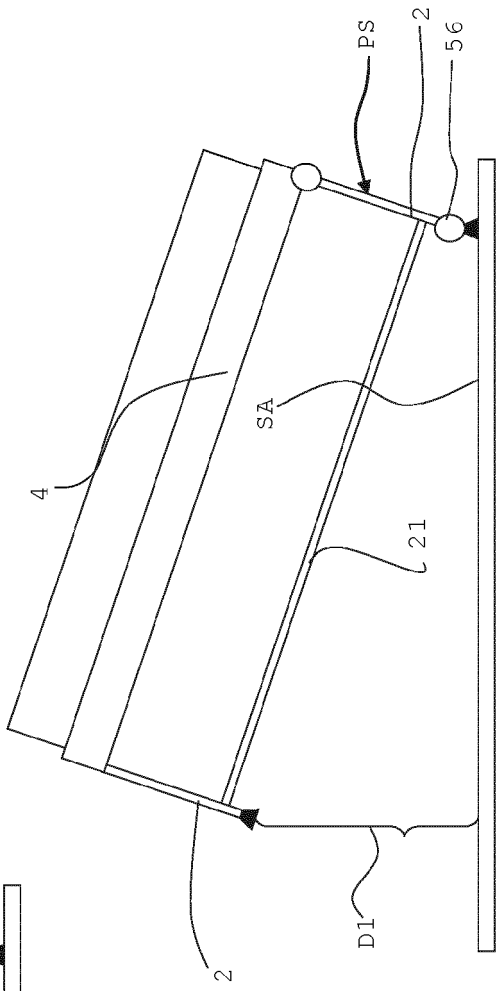


FIG. 4B

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EUROPEAN SEARCH REPORT

Application Number
EP 21 20 5719

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1 The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	17 March 2022	Kis, Pál

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