

Mattress assembly

Field of the invention

- 5 The present disclosure relates to a mattress assembly which allows the surface of a mattress to be expanded.

Background art

- 10 Mattress assemblies are known comprising a supplement mattress attached to a main mattress. The supplement mattress is provided on the main mattress by sewing, either at the factory or by means of any other known industrial process. This has the disadvantage that this type of mattresses only provides a double bed.

- 15 In addition, known mattresses are currently made from standard patterns as regards to size, with bed frames, canapés, or upholstered bed bases being manufactured in the same way in coincidence with the standard size of the mattress. This has the disadvantage that when a larger mattress surface is
20 needed it is necessary to replace it and, in addition, to replace the corresponding bed frame, canapé or upholstered bed base. Such replacement may not be possible in many cases since the lack of space may prevent a mattress from being replaced with a larger one.

- 25 A further disadvantage is that the mattresses do not have standard safety means for preventing the user from falling to the ground, especially when it comes to young children, elderly, disabled and dependent persons.

- 30 Sheets are also known having adjustment means for adjusting them on a conventional mattress. Known sheets have the disadvantage that when the size or particularities of the mattress are not conventional as stated above, known sheets could not be adapted to some mattress configurations.

- 35 Therefore there is a need to provide a mattress assembly which allows its surface to be expanded and, in addition, which is capable of providing the user with safety means for preventing the her/him from falling to the ground.

Summary of the invention

A mattress assembly is disclosed herein which allows the surface of a mattress to be expanded and which is capable of providing the user with safety means for preventing her/him from falling to the ground. The present mattress assembly further provides many advantages, as it will be clear in the following.

The present mattress assembly is provided with a supplement mattress comprising a main body which includes two lateral extensions and a footboard extension. In some embodiments, the supplement mattress further comprises a headboard extension.

Said extensions can be rotated 90° or 180° so that they can form a surface extension in a completely horizontal plane to the main body or perpendicular thereto, respectively.

The present mattress assembly further comprises a tubular structure provided in the perimeter of said extensions. The tubular structure may be fixed or assembled at the factory, or they may be assembled by the user by means of fast opening and closing means. This tubular structure is configured such that assembly and disassembly operations are facilitated and it is advantageous in case of transportation, transfers, etc.

The above mentioned fast opening and closing means consist of a textile section. This textile section may be easily wound on a corresponding tube section of the tubular structure fixing its position and ensuring its assembly of the supplement mattress perimeter.

As stated above, the tubular structure of the supplement mattress comprises a number of tube sections. Specifically, the tubular structure comprises two long sections, for assembling of the lateral extensions; three middle sections, one for assembling a headboard extension and two intended for assembling a footboard extension and for connecting the footboard extension with the main body; and eight short sections intended for assembling angles formed by connection between the lateral and footboard extensions with the main body. All the sections are attached to each other by means of eight bends and four

folding hinges positioned at connecting angles between main body and lateral and footboard extensions. Therefore, the hinges can be rotated 90° for oversizing the mattress so that the surface is totally flush with the main body, while they can be also rotated 180° to be perpendicular to the main body. In
5 this case, a security barrier preventing children, disabled and dependent persons from falling to the ground is thus formed.

The tubular structure provides the present mattress assembly with a frame along the perimeter of the supplement mattress. The tubular structure
10 comprises tube sections which can be slidingly adjusted to conform to the size of the supplement mattress. This allows the lateral extension and the footboard extension to be adapted to the size of the supplement mattress. The tubular structure may be also provided along its perimeter lined with fabric for attaching to the supplement mattress.

15 The main body of the supplement mattress is provided with clamps or girths for attaching to a main mattress. The clamps or girths are positioned at both sides of the back portion of the main body. However, the main body could be alternatively or additionally sewn to the main mattress, forming a single body.

20 In one embodiment of the present mattress assembly, the lateral extensions may be divided into several separate areas. The separate areas may be adaptable to hinged bases movable through an elevation angle at different fixed positions up to a maximum of 90° to the supplement mattress. The
25 separate areas of the lateral extensions are provided in connection with the tubular structure that is provided on the perimeter with flexible and/or adjustable sections, arranged in the footboard area, headboard area and lateral extensions. The headboard will be described further below.

30 The tube sections of the tubular structure in this embodiment may comprise corresponding hinged areas, coincident with the separate areas of the supplement mattress. The separate areas may be arranged such that they are capable to overlap each other as they are hinged.

35 According to a variant of the present mattress assembly and with the above mentioned purpose of expanding the surface of a mattress without having to replace it with a larger one and without having to replace the bed frame, or

upholstered bed base, the lateral extension of the present mattress assembly may comprise two solid upholstered bed bases. The two solid upholstered bed bases, facing each other, keep a separation distance equivalent to the width dimensions of a mattress. This is carried out by means of at least two structural tubes intended for coupling L-adjusting tubes, two being positioned on each side and in an opposite position, provided with a hinge at its free end positioned at the ends of the solid upholstered bed bases.

In this case, the footboard extension comprises a solid, upholstered bed base shorter than the solid upholstered bed bases of the lateral extension. The bed base has at least two hinges on its inner surface, one arranged at each end, coupled to its corresponding L-adjusting tube. The hinges are provided at one free end thereof with a clamp for coupling with the structural tube of the lateral extension.

The solid upholstered bed bases of the lateral extension and the footboard extension may be provided on the top thereof with a reinforced padding along its entire length. This avoids discomfort to the user when sitting on the sides of the bed.

The solid upholstered bed bases of the lateral extension and the footboard extension may be adjustable in height through a threaded insert. This threaded insert connects the corresponding hinge with the adjusting tube, allowing them to be aligned with the mattress.

In one alternative embodiment of the present mattress assembly, the lateral extension comprises two solid upholstered bed bases provided with at least two hinges at the ends of its back, positioned one at each end, provided with a coupling hinge joint in its central portion.

In a further alternative embodiment the footboard extension comprises a solid upholstered bed base shorter than the solid upholstered bed bases of the lateral extension. Such upholstered bed base is provided with at least two hinges on its inner surface, positioned one at each end, and it further includes, in a central portion thereof, a coupling hinge joint.

The coupling hinge joint is intended for being attached vertically on another surface, such as a canapé, allowing raising and/or lowering of the solid upholstered bed bases from the corresponding assemblies. The coupling hinge joint may be actuated, for being raised or lowered, manually or by means of a remotely controlled electric motor.

The present mattress assembly may be further provided with a fitted sheet. This fitted sheet may include an elastic element along its entire perimeter. This facilitates the fitted sheet to be adapted to the mattress assembly. In this case, the fitted sheet has a main body that is provided with lateral extensions. The ends of the fitted sheet are configured by a cutout forming an angle of 90°. The fitted sheet has a number of textile sections in the connection between the main body with the lateral extensions. Such textile sections can be passed through slots formed in the supplement mattress, between the connection of the lateral and footboard extensions, such that the free end of the textile sections fits the end of the fitted sheet, since it clamps on the sides of the supplement mattress through fastening means.

The fitted sheet can be perfectly fitted in the mattress assembly even when the user extends the lateral extensions of the supplement mattress, preventing the fitted sheet from coming out of the lateral extensions.

As stated above, the present mattress assembly is provided with a headboard extension. The headboard extension can be rotated together with the tubular structure through different positions, up to 90° to the supplement mattress. The headboard extension can be thus positioned at different angles giving the users more comfortable positions for relaxing or just for reading.

In some embodiments, the headboard extensions may comprise separate hinged areas movable through an elevation angle at different fixed positions. Therefore, different users on the present mattress assembly can lay their head at different angles.

The tubular structure of the supplement mattress is provided with two hinges in the connecting angle between the headboard extension and the lateral extensions. Hinges allow an angle of rotation for raising the headboard at different fixed positions up to a maximum of 90° to the supplement mattress. A

security barrier can be thus formed preventing children, disabled and dependent adults from falling to the ground.

5 The present mattress assembly provides multiple advantages over the currently available mattresses.

10 One important advantage is that the surface of the mattress assembly can be extended efficiently by means of the tubular structure provided along its perimeter such that the surface of the mattress assembly is totally flush with the main body. This avoids the replacement of the mattress and its corresponding bed frame, canapé or upholstered bed base an.

15 A further advantage is that, in addition, the surface of the mattress assembly can be extended efficiently perpendicular to the mattress assembly. This results in that a security barrier is effectively formed preventing the user from falling to the ground. The provision of a hinged headboard in the supplement mattress results in an enhanced security barrier on its four sides, preventing the user from falling to the ground.

20 It is important to note that the supplement mattress can be attached to any type of mattress, by means of clamps or girths and with the help of textile means as stated above.

25 Additional objects, advantages and features of embodiments of the present mattress assembly will become apparent to those skilled in the art upon examination of the description, or may be learned by practice thereof.

BRIEF DESCRIPTION OF THE DRAWINGS

30 Particular embodiments of the present mattress assembly will be described in the following by way of non-limiting examples, with reference to the appended drawings, in which:

35 Figure 1 is a plan view showing one embodiment of a supplement mattress of the mattress assembly from its back;

Figure 2 shows a constructive detail of the fast opening and closing means for the tubular structure;

Figure 3 is a plan view of the tubular structure;

Figure 4 is an elevational view of the supplement mattress fitted on the main mattress in a rest position;

5 Figures 5 and 6 are elevational and plan views, respectively, of the supplement mattress fitted on the main mattress with the lateral and footboard extensions extending the supplement mattress surface in a completely horizontal plane to the main body through a 90° rotation;

10 Figures 7 and 8 are elevational and plan views, respectively, of the supplement mattress fitted on the main mattress with lateral and footboard extensions extending the supplement mattress surface in a plane completely perpendicular to the main body through a 180° rotation, forming a safety barrier for preventing the user from falling;

Figure 9 shows an elevational and a plan view of one embodiment of the mattress assembly;

15 Figure 10 shows a constructive detail of the mattress assembly shown in figure 9;

20 Figure 11 is an elevational view of the mattress assembly shown in figure 9 with the solid upholstered bed base of the right lateral extension and the solid upholstered bed base of the footboard extension shown forming an extension surface in a completely horizontal plane to the mattress through a 90° rotation;

Figure 12 shows a view of the mattress assembly illustrated in figure 9 with the extensions expanded extending its surface;

25 Figure 13 is an elevational view of the mattress assembly in figure 9 showing the solid upholstered bed base of the right lateral extension and the solid upholstered bed base of the footboard extension forming a safety surface on a plane completely perpendicular to the mattress by rotating 180°, thus preventing the user from falling down;

30 Figure 14 shows a plan view of the mattress assembly shown in figure 9 with the extensions rotated 180° forming a safety barrier;

Figure 15 shows side and elevational views showing a solid upholstered bed base of the lateral extension in one alternative embodiment;

Figure 16 shows side and elevational views showing the lateral extension and the footboard extension in one alternative embodiment;

35 Figure 17 shows the coupling of the lateral extension and the footboard extension on a canapé;

Figure 18 shows the coupling of the lateral extension and the footboard extension on a canapé, the hinge acting when ascending, being flush with the mattress;

5 Figure 19 is a plan view of a mattress on a canapé with the lateral extension and the footboard extension extended and positioned flush with the mattress by a 90° rotation;

Figure 20 is a plan view of a mattress on a canapé with the lateral extension and the footboard extension coupled thereto in a plane completely perpendicular to the mattress through a 180° rotation, preventing the user
10 from falling down;

Figure 21 shows elevation and plan view of the fitted sheet;

Figure 22 shows a plan view of the fitted sheet for being placed on the mattress assembly where lateral and footboard extensions are shown;

Figure 23 shows a detail of the coupling of the fitted sheet on the mattress
15 assembly with the attachment of the textile section with the side of the sheet being shown in detail;

Figure 24 shows a plan view of the supplement mattress from on its back surface;

Figure 25 shows a plan view of the tubular structure;

20 Figure 26 shows an elevational view of the supplement mattress fitted on the main mattress in rest position;

Figure 27 shows an elevational view of the supplement mattress fitted on the main mattress showing the headboard elevation;

Figure 28 shows an elevational view of the supplement mattress fitted on the
25 main mattress with lateral, footboard and headboard extensions forming a security barrier for preventing the user from falling down;

Figure 29 shows a plan view of the supplement mattress of the present mattress assembly;

Figure 30 shows a plan view of the supplement mattress from its back,
30 showing the lateral extensions with three separate areas;

Figure 31 shows a plan view of the tubular structure;

Figure 32 shows an elevational view of the supplement mattress fitted on the main mattress with a hinged base, with the lateral extensions formed by three separate areas forming a safety barrier to prevent the user from falling down;
35 and

Figure 33 shows a plan view of the supplement mattress showing the linear slope of the three separate areas forming the lateral extensions.

Detailed description of embodiments

Reference is made to figures 1-33 of the drawings where embodiments of the present mattress assembly are schematically shown.

The present mattress assembly comprises a main mattress, a supplement mattress 1 and a tubular structure 5.

10 The supplement mattress 1 comprises a main body having two lateral extensions 2 and a footboard extension 3. As it will be described in connection with the embodiments of figures 26-33, a headboard extension 17 is further provided.

15 The main body of the supplement mattress 1 together with the extensions 2, 3 can form an extending surface in a plane completely horizontal. This is carried out by rotating said extensions 2, 3 90° from their vertical position. In addition, the extensions 2, 3 can be also rotated 180° as it will be explained below.

20 The tubular structure 5 is provided along the perimeter of the main body. Fast opening and closing means 4 are provided for assembling it. The tubular structure 5 comprises a number of tube sections. Specifically it comprises two long sections 6 for the assembly of the lateral extensions 2; three central
25 sections 7, one for the assembly of the headboard and two intended for the assembly of the footboard extension 3 and for attaching the footboard extension 3 to the main body; eight short sections 8 for the assembly of angles forming the attachment between the lateral extensions 2 and the footboard extension 3, with the main body. All the tube sections are attached
30 to each other by means of eight bends 9 and four hinges 10 rotatable through 90° and 180° as shown in figure 3. The hinges 10 are positioned in the connecting angles between the main body and the lateral extensions 2 and the footboard extension 3.

35 The main body of the supplement mattress 1 includes clamps or girths 11 positioned at both sides of its back. Said clamps or girths 11 are intended for coupling the supplement mattress 1 on the main mattress.

Referring now to the embodiments shown in figures 9-20 of the drawings, the lateral extensions 2 of the supplement mattress 1 comprise solid upholstered bed bases 2a. Said solid upholstered bed bases 2a face each other and keep
5 a separation distance equivalent to the width dimensions of the main mattress. This is carried out by means of the tubular structure 5. In said embodiments, the tubular structure 5 comprises tube sections lined with fabric intended for coupling L-adjusting tubes, two being positioned on each side and in a opposite position, provided with a hinge 10 at its free end positioned
10 at the ends of solid upholstered bed bases 2a.

The footboard extension 3 in turn comprises a solid upholstered bed base 3a. The solid upholstered bed base 3a of the footboard extension 3 is shorter than the solid upholstered bed bases 2a of the lateral extensions 2. The
15 footboard extension 3 has at least two hinges 12 on its inner surface, one arranged at each end, coupled to its corresponding L-adjusting tube 5, provided at one free end thereof with a clamp 13 for coupling with the structural tube 5 of the lateral extensions 2.

20 The solid upholstered bed bases 2a of the lateral extensions 2 and the solid upholstered bed base 3a of the footboard extension 3 are provided on the top thereof with a padded reinforcement 14 throughout their length.

The solid upholstered bed base 2a of the lateral extensions 2 and the solid
25 upholstered bed base 3a of the footboard extension 3 are adjustable in height through a threaded insert 15.

The lateral extensions 2 having the upholstered bed bases 2a are provided with a coupling hinge joint 16 in its central portion. The footboard extension 3
30 with the upholstered bed base 3a further includes, in a central portion thereof, a corresponding coupling hinge joint 16. The coupling hinge joints 16 can be actuated, for being raised or lowered, manually or by means of a remotely controlled electric motor.

35 Figures 21, 22 and 23 illustrate one example of a fitted sheet 20 included in the present mattress assembly. The fitted sheet 20 includes an elastic element 21 along its entire perimeter and a main body 22 provided with

lateral extensions 4. The elastic element 21 of the fitted sheet 20 prevents it from coming out of the lateral and footboard extensions 2, 3 of the supplement mattress 1.

5 The ends of the fitted sheet 20 are configured by a cutout 24 forming an angle of 90° and several textile sections 25. The textile sections 25 are provided in the connection between the main body 22 with the lateral extensions 23, with fastening means 26 at their free end. Said textile sections 25 can be passed through slots formed in the supplement mattress 1 such
10 that the free end of said textile sections 25 fits the fitted sheet 20 through fastening means 26. This ensures a perfect placement for when the user extends the lateral extensions 2 of the supplement mattress 1 preventing the fitted sheet 20 from coming out of the lateral extensions 2 of the mattress assembly.

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Reference is now made to figures 24-29 of the drawings. As stated above, in this embodiment of the mattress assembly a headboard extension 17 is provided.

20 In this embodiment shown in figures 24-29 of the drawings, the tubular structure 5 has two hinges 18 in the connecting angle between the headboard extension 17 and the lateral extensions 2. This allows an angle of rotation for raising the hinged headboard 17 at different fixed positions up to a maximum of 90° relative to the mattress 1. This also allows a security barrier to be
25 formed preventing children, disabled and dependent adults from falling to the ground.

Reference is now made to figures 30-33. In this embodiment, the lateral extensions 2 are configured into several separate areas 2b. The separate
30 areas 2b of the lateral extensions 2 are adaptable to corresponding hinged bases movable as they can be rotated through an elevation angle at different fixed positions up to a maximum of 90° relative to mattress 1. The separate areas 2b of the lateral extensions 2 can be rotated together with the flexible and/or adjustable tube sections 5a of the tubular structure 5.

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The frame 5b of the tubular structure 5 corresponding to the lateral extensions 2 is configured on both sides by several separate hinged areas 5c

coincident with the above mentioned separate areas 2b. Hinges 5d are attached to the hinge 5d adjacent to a linear slope equivalent to the supplement mattress thickness. This prevents different parts from overlapping each other as they are hinged, enabling a complete adaptability to hinged bases.

The flexible and/or adjustable sections 5a provided on the perimeter in the tubular structure 5, in the footboard extension 3, headboard extension 17 and lateral extensions 2 enable a perfect adaptation of the tubular structure 5 to the supplement mattress 1.

The flexible and/or adjustable tube sections 5a of the tubular structure 5 are configured with an elastic material or any other equivalent means facilitating the tubular structure 5 to be folded.

Although only a number of particular embodiments and examples of the present mattress assembly have been disclosed herein, it will be understood by those skilled in the art that other alternative embodiments and/or uses and obvious modifications and equivalents thereof are possible.

For example, an automation driving system could be provided for driving the lateral extensions and/or the footboard extension and/or the headboard extension, and/or the tubular structure of the present mattress assembly. This driving system could include motor means for driving said extensions and/or the tubular structure and it could be remotely actuated by the user. Remote control could be performed through a control unit having e.g. an appropriate user interface or through a suitable mobile application.

The bed bases 2a, 2b of the lateral extensions 2 and the bed bases 3a of the footboard extension may be provided with at least two hinges at the ends of its back, positioned one at each end, provided with a coupling hinge joint 16 in different positions other than the central portion. Alternative means for raising and/lowering the coupling hinge joint 16 other than manually or by a remotely controlled electric motor are not ruled out.

Furthermore, the tubular structure could be made of solid tube sections of any shape in cross-section, such as circular, oval, polygonal, etc.

In addition, embodiments in which the supplement mattress 1 has a single lateral extension are not ruled out. Moreover, there could be embodiments in which different lateral extensions are provided having different properties and/or functionalities from each other. For example, at least one of the lateral extensions of the supplement mattress could be rigid. Different functionalities of the lateral extensions include areas for holding items, and/or areas for storing items, etc.

On the other hand, the fitted sheet 20 might be provided with upper and lower side channels inside of which an elastic element could be provided so that the side portions of assembly can be suitably wrapped by the fitted sheet 20.

In some embodiments, the inner central section 7a of the tubular structure 5 shown in figure 1 could be not present.

Finally, an additional reinforcing structure could be provided for reinforcing the mattress assembly. This additional reinforcing structure could be adapted for holding the corners of the tubular structure in position.

Therefore, the present disclosure covers all possible combinations of the particular embodiments of the present mattress assembly described.

Reference signs related to drawings and placed in parentheses in a claim are solely for attempting to increase the intelligibility of the claim, and shall not be construed as limiting its scope. Thus, the scope of the present disclosure should not be limited by particular embodiments, but should be determined only by a fair reading of the claims that follow.

CLAIMS

1. A mattress assembly comprising a main mattress and a supplement
mattress (1) attached thereto, wherein the supplement mattress (1) comprises
5 a main body having two lateral extensions (2) and a footboard extension (3),
forming an extension surface in a completely horizontal plane to the main
body when rotated 90° or forming an extension surface perpendicular thereto
when rotated 180°, in collaboration with a tubular structure (5) provided along
the perimeter of the supplement mattress (1).
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2. Assembly as claimed in claim 1, wherein the tubular structure (5) is fixedly
provided along the perimeter of the supplement mattress (1).
3. Assembly as claimed in claim 1 or claim 2, wherein the tubular structure (5)
15 is provided with fast opening and closing means (4).
4. Assembly as claimed in claim 1 wherein the supplement mattress (1)
further comprises a headboard extension (17) that, together with the tubular
structure (5), can be rotated at different elevation angles, up to a maximum of
20 90°.
5. Assembly as claimed in claim 4, wherein the tubular structure (5) has two
hinges (18) in the connecting angle between the headboard extension (17)
and the lateral extensions (2).
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6. Assembly as claimed in claim 4 or claim 5, wherein the tubular structure (5)
comprises two long sections (6), for assembling of the lateral extensions (2),
three central sections (7), one for assembling of the headboard extension
(17) and two intended for assembling of the footboard extension (3) and for
30 connecting the footboard extension (3) with the main body and eight short
sections (8) intended for assembling of the angles formed by connection
between the lateral extensions (2) and the footboard extension (3), with the
main body, all the sections being attached to each other by means of eight
bends (9) and four hinges rotatable through 90° and 180°, positioned at
35 connecting angles between main body and the lateral extensions (2) and the
footboard extension (3).

7. Assembly as claimed in any of the preceding claims, wherein the supplement mattress (1) includes clamps or girths (11) positioned at both sides of its back for coupling it on the main mattress.
- 5 8. Assembly as claimed in any of the preceding claims, wherein each lateral extension (2) comprises solid upholstered bed bases (2a), facing each other, keeping a separation distance from each other equivalent to the width dimensions of the main mattress, by means of at least two tube sections, lined with fabric, intended for coupling L-adjusting tubes, two being positioned on
10 each side and in a opposite position, provided with a hinge at its free end positioned at the ends of the solid upholstered bed bases (2a).
9. Assembly as claimed in claim 8, wherein the footboard extension (3) comprises a solid upholstered bed base (3a) shorter than the solid
15 upholstered bed bases (2a) of the lateral extension (2), having at least two hinges (12) on its inner surface, one arranged at each end, coupled to its corresponding L-adjusting tube, provided at one free end thereof with a clamp (13) for coupling with the structural tube of the lateral extension (2).
- 20 10. Assembly as claimed in claim 9, wherein the two solid upholstered bed bases (2a) of the lateral extension (2) and the solid upholstered bed base (3a) of the footboard extension (3) are provided on the top thereof with a padded reinforcement (14) throughout their length.
- 25 11. Assembly as claimed in claim 9 or claim 10, wherein both solid upholstered bed bases (2a) of the lateral extension (2) and the solid upholstered bed base (3a) of the footboard extension (3) are adjustable in height through a threaded insert (15).
- 30 12. Assembly as claimed in claim 8, wherein the bed bases (2a) of the lateral extension (2) are provided with at least two hinges at the ends of its back, positioned one at each end, provided with a coupling hinge joint (16) in its central portion.
- 35 13. Assembly as claimed in claim 12, wherein the coupling hinge joint (16) is adapted to be actuated for being raised and/or lowered, manually or by a remotely controlled electric motor.

14. Assembly as claimed in any of the preceding claims, wherein it further comprises a fitted sheet (20) comprising an elastic element (21) along its perimeter, a main body (22) that is provided with lateral extensions (23), the ends of the fitted sheet (20) being configured by a cutout (24) forming an angle of 90°, several textile sections (25) being provided in the connection between the main body (22) with the lateral extensions (23), provided with fastening means (26) at their free end.
15. Assembly as claimed in claim 1, wherein the lateral extensions (2) of the mattress assembly comprise separate areas (2b) adaptable to hinged bases, movable through an elevation angle at different fixed positions, up to a maximum of 90°.
16. Assembly as claimed in claim 15, wherein the lateral extensions (2) comprise several separate hinged areas (5c), coincident with the separate areas (2b) of the supplement mattress (1), separated from each other through corresponding hinges, which are positioned attached to the hinge adjacent to a linear slope equivalent to the supplement mattress thickness.
17. Assembly as claimed in any of the preceding claims, wherein it further comprises an automation driving system for driving at least one of the lateral extensions (2; 2b), the footboard extension (3, 3a), the headboard extension (17), and the tubular structure (5).
18. Assembly as claimed in any of the preceding claims, wherein the tubular structure (5) is made of solid tube sections.
19. Assembly as claimed in any of the preceding claims, wherein at least one of the lateral extensions (2, 2a) and the footboard extension (3, 3a), is rigid.
20. Assembly as claimed in any of the preceding claims, wherein it further comprises an additional reinforcing structure adapted for holding parts of the tubular structure (5) in position.
21. Assembly as claimed in any of the claims 4-20, wherein the headboard extensions (17) comprise separate hinged areas movable through an

elevation angle at different fixed positions.