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(54) **HEIGHT ADJUSTABLE WORKSTATION**

(57) There is provided a height adjustable workstation, comprising a base (1), lower (3) and upper (5) desks, and a lifting mechanism (2) for raising and lowering the lower and upper desks relative to the base, the lower desk (3) for supporting a keyboard and the upper desk (5) for supporting a computer monitor. The upper desk (5) provides a substantially planar upper desk surface that comprises a fixed desk surface (7) of a fixed desk portion (6) and a movable desk surface (9) of a movable

desk portion (8), when the moveable desk portion (8) is in a first position. In a second position the movable desk surface (9) is upwardly slanted relative to the fixed desk surface (7), to aid reading of any documents placed on the movable desk surface (9). A skirt (10, 12) fills a gap between the fixed desk surface (7) and the movable desk surface (9) when the movable desk portion is in the second position, to prevent trapping of human fingers.

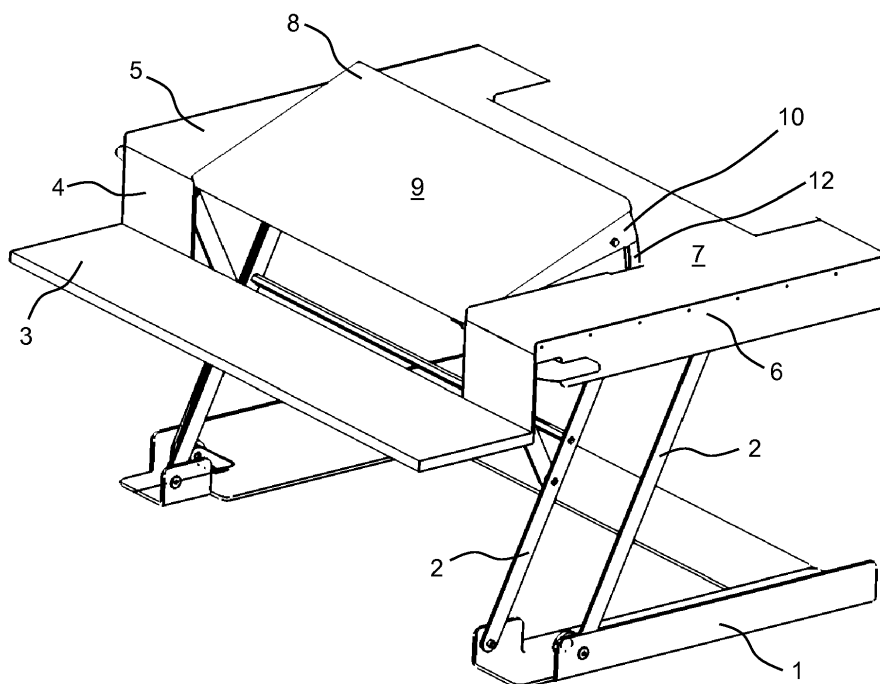


Fig. 1

Description

[0001] The present invention relates to a height adjustable workstation, in particular a height adjustable workstation having a lower desk for supporting a keyboard and an upper desk for supporting a computer monitor. The height adjustable workstation has a lifting mechanism for raising and lowering the lower and upper desks relative to the base.

[0002] A known workstation of this type is intended to be placed with the base upon a table, with the lifting mechanism in a retracted configuration when a user wishes to be seated at the table, and the lifting mechanism in an extended configuration when the user wishes to stand at the table. Working in a standing position can provide health benefits over working in a seated position.

[0003] There is a desire to make the workstation more adjustable, so the user can alter the desks to better suit their requirements. For example, the user may wish to adjust the desks in a different manner when standing, to when seated.

[0004] It is therefore an aim of the present invention to improve upon the known art.

[0005] According to the invention, there is provided a height adjustable workstation according to any one of the appended claims. The height adjustable workstation has an upper desk comprising a movable desk portion and a fixed desk portion, the movable desk portion being pivotally connected to the fixed desk portion. The upper desk provides a substantially planar upper desk surface that comprises a fixed desk surface of the fixed desk portion and a movable desk surface of the movable desk portion, when the moveable desk portion is in a first position. The movable desk portion is movable from the first position to a second position by pivoting a rear edge of the movable desk surface upwardly relative to the fixed desk surface, thereby upwardly slanting the movable desk surface relative to the fixed desk surface to aid reading of any documents placed on the movable desk surface. A gap between the fixed desk surface and a side edge of the movable desk surface when the movable desk portion is in the second position, is filled by a skirt of the height adjustable workstation, to prevent human fingers from entering the gap.

[0006] Accordingly, the movable desk surface can be moved from the first position to the second position to act as a document holder, and the skirt helps prevent trapping of human fingers between the fixed desk portion and the movable desk portion when the movable desk surface is lowered from the second position back to the first position.

[0007] The skirt may comprise a plurality of portions that are movable relative to one another to increase and decrease a width of the skirt, the width of the skirt being progressively increased as the rear edge of the movable desk surface is pivoted upwardly relative to the fixed desk surface to move from the first position to the second position. The width of the skirt is typically measured in a

direction from the fixed desk surface towards the side edge of the movable desk surface when the movable desk portion is in the second position. Allowing the skirt to increase and decrease in width means that the skirt requires less storage space when the movable desk portion is in the first position.

[0008] A trough may be fixedly connected to the fixed desk portion beneath the side edge of the movable desk surface, the trough having opposing first and second sides. The skirt may be retracted into the trough when the movable desk portion is moved into the first position, the trough storing the skirt and protecting it from damage.

[0009] A height setting member may be pivotally connected to the movable desk portion, and a plurality of height setting cradles may be connected to the fixed desk portion for receiving an end of the height setting member or receiving a protrusion of the height setting member. Then, the angle and height of the movable desk portion in the second position can be set by choosing which height setting cradle the end or protrusion of the height setting member is placed in. Alternatively, the height setting member may be pivotally connected to the fixed desk portion, and the plurality of height setting cradles may be connected to the movable desk portion.

[0010] The movable desk portion may be pivotally connected to the fixed desk portion by a pivot that is fixedly connected to the fixed desk portion at a position adjacent a front edge of the movable desk surface when the movable desk portion is in the first and second positions, the front edge of the movable desk surface being opposite the rear edge of the movable desk surface. Then, the front edge of the movable desk surface may remain at substantially the same height as the fixed desk surface when the movable desk surface is moved into the second position. Optionally, the front edge of the movable desk surface may form part of a front edge of the upper desk surface.

[0011] The movable desk portion may comprise a slide rail beneath the movable desk surface, the slide rail extending substantially parallel to the side edge of the movable desk surface. The pivot may be attached to a slider that is slidably connected to the slide rail, the slider being slidable from adjacent the front edge of the movable desk surface towards the rear edge of the movable desk surface to move the movable desk portion forwardly into a third position. Accordingly, the movable desk portion may be slid forwardly towards the user, to extend the upper desk surface closer to the user.

[0012] The movable desk portion may be fixedly connected to a spigot that is slidable along a slot extending along the first or second sides of the trough, as the movable desk portion is slid forwardly from the first position to the third position. The spigot may be provided on the skirt, or on a mounting bracket attached to the movable desk portion. The spigot prevents the movable desk portion from rotating about the pivot when moving from the first position to the third position, so that the movable desk surface remains in the plane of the substantially

planar upper desk surface.

[0013] A rear end of the slot may extend upwardly in a direction towards the fixed desk surface, to allow the spigot to move upwardly out of the slot when moving the movable desk portion from the first position to the second position, thereby allowing the rear edge of the movable desk surface to pivot upwardly.

[0014] A front end of the slot may extend upwardly in a direction towards the fixed desk surface, to allow the spigot to move upwardly and the front edge of the movable desk surface to pivot downwardly until the movable desk portion contacts the lower desk when moving the movable desk portion from the third position to a fourth position. Then, when the movable desk portion is in the fourth position the movable desk surface provides a document holder at a position lower and closer to the user, in comparison to when the movable desk portion is in the second position. Optionally, in the fourth position the movable desk portion may cover over a keyboard that is placed on the lower desk, to protect the keyboard.

[0015] Embodiments of the invention will now be described with reference to the accompanying drawings, in which:

Fig. 1 shows a perspective diagram of a height adjustable workstation when viewed from above, with a lifting mechanism retracted to a base, and a movable desk portion in a second position, according to a first embodiment of the invention;

Fig. 2 shows a perspective diagram of the height adjustable workstation of Fig. 1 when viewed from above, with the lifting mechanism extended from the base, and the movable desk portion in the second position;

Fig. 3 shows a perspective diagram of the height adjustable workstation of Fig. 1 when viewed from below, in isolation from the lifting mechanism and base, and with the movable desk portion in the second position;

Fig. 4 shows another perspective diagram of the height adjustable workstation of Fig. 1 when viewed from below, in isolation from the lifting mechanism and base, and with the movable desk portion in the second position;

Fig. 5 shows a perspective diagram of the height adjustable workstation of Fig. 1 when viewed from above, in isolation from the lifting mechanism and base, and with the movable desk portion in a first position;

Fig. 6 shows a perspective diagram of the height adjustable workstation of Fig. 1 when viewed from below, in isolation from the lifting mechanism and base, and with the movable desk portion in the first position;

Fig. 7 shows a perspective diagram of the height adjustable workstation of Fig. 1 when viewed from above, in isolation from the lifting mechanism and base, and with the movable desk portion in a third

position;

Fig. 8 shows a perspective diagram of the height adjustable workstation of Fig. 1 when viewed from below, in isolation from the lifting mechanism and base, and with the movable desk portion in the third position;

Fig. 9 shows a perspective diagram of the height adjustable workstation of Fig. 1 when viewed from above, in isolation from the lifting mechanism and base, and with the movable desk portion in a fourth position;

Fig. 10 shows a perspective diagram of the height adjustable workstation of Fig. 1 when viewed from below, in isolation from the lifting mechanism and base, and with the movable desk portion in the fourth position;

Fig. 11 shows a perspective diagram of a height adjustable workstation when viewed from above, in isolation from a lifting mechanism and base, according to a second embodiment of the invention, and with a movable desk portion in a second position;

Fig. 12 shows a perspective diagram of the height adjustable workstation of Fig. 11 when viewed from below, in isolation from the lifting mechanism and base, and with the movable desk portion in the second position;

Fig. 13 shows a perspective diagram of the height adjustable workstation of Fig. 11 when viewed from above, in isolation from the lifting mechanism and base, and with the movable desk portion in a first position;

Fig. 14 shows a perspective diagram of the height adjustable workstation of Fig. 11 when viewed from below, in isolation from the lifting mechanism and base, and with the movable desk portion in the first position;

Fig. 15 shows a perspective diagram of the height adjustable workstation of Fig. 11 when viewed from above, in isolation from the lifting mechanism and base, and with the movable desk portion in a third position;

Fig. 16 shows a perspective diagram of the height adjustable workstation of Fig. 11 when viewed from below, in isolation from the lifting mechanism and base, and with the movable desk portion in the third position;

Fig. 17 shows a perspective diagram of the height adjustable workstation of Fig. 11 when viewed from above, in isolation from the lifting mechanism and base, and with the movable desk portion in a fourth position; and

Fig. 18 shows a perspective diagram of the height adjustable workstation of Fig. 11 when viewed from below, in isolation from the lifting mechanism and base, and with the movable desk portion in the fourth position.

[0016] The first embodiment of the invention will now

be described, with reference to Figs 1 to 10. The perspective diagram of Fig. 1 shows a height adjustable workstation comprising a base 1, a lifting mechanism 2 connected to the base, an upper desk 5 connected to the lifting mechanism, and a lower desk 3 connected to the upper desk 5 by connecting portions 4. In normal use, the base 1 is intended to be placed horizontally on top of a table, and the lifting mechanism 2 is used to raise and lower the height of the upper and lower desks 5 and 3, to suit the user. Typically, the user will place a computer monitor (not shown) on the upper desk 5, and a keyboard (not shown) on the lower desk 3. Fig. 1 shows the lifting mechanism in an extended configuration, for example if the user wishes to stand adjacent to the table when operating the keyboard, and Fig. 2 shows the lifting mechanism in a retracted configuration, for example if the user wishes to sit adjacent to the table when operating the keyboard.

[0017] The upper desk 5 comprises a fixed desk portion 6, and a movable desk portion 8. In this embodiment, the fixed desk portion 6, and movable desk portion 8 are wooden plates, although other materials could alternatively be used. The fixed desk portion 6 has a fixed desk surface 7, upon which the computer monitor may be placed, and the movable desk portion 8 has a movable desk surface 9. The movable desk portion is shown in a second position in Figs. 1 and 2, with a rear edge 9R of the movable desk surface 9 pivoted upwardly relative to a front edge 9F of the movable desk surface 9. Accordingly, the movable desk surface 9 can serve as a document holder to assist reading of documents placed upon it when the movable desk surface 9 is in the second position.

[0018] The movable desk surface 9 has a right side edge 9RS, and first and second skirt portions 10 and 12 are provided between the right side edge 9RS and the fixed desk surface 7, to prevent human fingers from entering into the space (gap) between the right side edge 9RS and the fixed desk surface 7. Similar first and second skirt portions (not shown in Figs) are present between the left side edge 9LS and the fixed desk surface 7, for the same reason. The first and second skirt portions are each substantially triangular plates.

[0019] The first skirt portion 10 is fixedly attached to the movable desk portion beneath the right side edge 9RS, and has a spigot 11 which protrudes outwardly in a direction away from the movable desk surface 9. The second skirt portion 12 is movably attached to the first skirt portion 10, and has an arched slot 13 extending along a width of the second skirt portion 12.

[0020] The perspective diagram of Fig. 3 shows a view from beneath the workstation, with the base 1 and lifting mechanism 2 omitted for clarity, so that the movable attachment between the first and second skirt portions 10 and 12 can be more easily seen. The first skirt portion 10 has a protrusion 14 which protrudes inwardly, through the arched slot 13 of the second skirt portion 12. The protrusion 14 is shown resting in a cradle formed by an

end of the arched slot 13, with the second skirt portion 12 fully extended away from the first skirt portion 10. When the movable desk portion 8 is pivoted from a first position shown in Fig. 5, to the second position shown in Figs. 2 and 3, the protrusion 14 engages the cradle at the end of the arched slot 13, and causes the second skirt portion 12 to be raised upwardly into the position shown in Fig. 2.

[0021] The fixed desk portion 6 has a cutaway 28 shown in Fig. 5, the cutaway being adjacent the rear edge 9R of the movable desk surface 9. A user is able to insert their fingers into the cutaway 28, to lift the movable desk portion 8 from the first position shown in Fig. 5 to the second position shown in Fig. 2.

[0022] Also shown in Fig. 5 is a center slice CNT which is orientated vertically through the workstation, and in this embodiment the left and right sides of the workstation about the center slice CNT are entirely symmetrical with one another. The center slice is only conceptual and so is shown in dotted lines. Parts that are said to extend outwardly, extend away from the center slice CNT, and parts that are said to extend inwardly, extend towards the center slice CNT. Also marked on Fig. 5 are the upward direction U, downward direction D, forward direction F, rearward direction Rr, left direction L, and right direction R.

[0023] As shown in Fig. 3, a trough 20 is fixedly attached to the fixed desk portion 8, beneath the movable desk portion 6, alongside the right side edge 9RS of the movable desk surface 9. The trough 20 has a first sidewall 21 that faces inwardly towards the movable desk portion 8, and a second sidewall 22 that faces outwardly away from the movable desk portion 8. The trough 20 provides a channel 20C (Fig. 6) between the first and second sidewalls 21 and 22.

[0024] The first and second skirt portions 10 and 12 are stored inside the channel 20C when the movable desk portion 8 is moved back to the first position shown in Fig. 5. As the first and second skirt portions 10 and 12 are moved back to the first position shown in Fig. 5, the second skirt portion 12 engages a bottom of the channel of the trough, and then the protrusion 14 travels out of the cradle and along the arched slot 13, to allow the movable desk portion 8 to continue to move downwardly towards the position shown in Fig. 5.

[0025] As shown in Fig. 4, there are two troughs 20, but only the right side trough is shown in Fig. 3 so that a height setting mechanism 15, 16, 17, 18 can be seen in Fig. 3. This height setting mechanism will now be described. Specifically, the fixed desk portion 6 has a member 15 that is fixedly connected to the fixed desk portion, and which extends to directly beneath a central region of the movable desk portion 8, and which has height setting cradles 16 formed in two parallel rows along the extension of the member. The movable desk portion 8 has a height setting bracket 18 fixedly attached to its lower surface, and a height setting member 17 that is pivotally connected to the height setting bracket 18. As shown in

the enlarged view EN5 of Fig. 8, the height setting member 17 comprises a rod 19 that is connected between two parallel rods of the height setting member 17. In the position shown in Fig. 3, the rod 19 is located in the height setting cradles 16, and sets the extent (height) to which the rear edge 9R of the movable desk portion 8 is pivoted upwardly in the second position.

[0026] Now referring to Fig. 4, another perspective view of the workstation in the second position when viewed from a different angle to Fig. 3 is shown. Fig. 4 includes an enlarged view EN1 of the workstation, in which the second sidewall 22 of the trough 20 can be seen. The second sidewall 22 has a slot 23 aligned along a length of the trough, and which has a front end 24 and a rear end 25. Both the front and the rear ends of the slot are angled upwardly in a direction towards the fixed desk surface 7, and a middle region of the slot 23 between the front end 24 and a rear end 25 extends substantially horizontally.

[0027] Fig. 4 also includes an enlarged view EN2 of a region of the workstation generally designated by arrow AR1. As shown in EN2, the first sidewall 21 of the trough 20 has a pivot 30, which pivotally connects the movable desk portion 8 to the fixed desk portion 6. The pivot 30 is fixedly connected to the trough 20 of the fixed desk portion 6 at a position adjacent the front edge 9F of the movable desk surface when the movable desk portion is in the first and second positions. The pivot 30 extends into a socket in a slider 31, to allow pivoting of the slider 31 relative to the trough 20 and the fixed desk portion 6. The slider 31 is slidably attached to a slide rail 32. The slide rail 32 is fixedly attached to a lower surface of the moveable desk portion 8, opposite the movable desk surface 9, and is aligned parallel to the right side edge 9RS of the movable desk surface 9. The slider 31 is able to move along the slide rail 32.

[0028] When the movable desk portion 8 is moved from the second position (shown in Fig. 2) to the first position (shown in Fig. 5), the rear edge 9R of the movable desk surface 9 pivots downwardly about the pivot 30, until the movable desk surface 9 and the fixed desk surface 7 together form a substantially planar surface. Fig. 6 shows a perspective view from beneath the workstation when the movable desk portion 8 is in the first position. The enlarged view EN4 of a region of the workstation generally designated by arrow AR2, shows that the slider 31 has been pivoted relative to the first sidewall 21 of the trough, so that the slide rail 32 now extends generally parallel to the trough.

[0029] Optionally, the front edge 9F of the movable desk surface 9 may be provided with a small upward ridge to help retain any documents placed on the movable desk surface 9 in the second position, but the movable desk surface 9 and the fixed desk surface 7 are still considered to form a substantially planar surface in the first position shown in Fig. 5, despite any such small upward ridge that may be present along the front edge 9F.

[0030] Also as the movable desk portion 8 is moved

from the second position (shown in Fig. 2) to the first position (shown in Fig. 5), the rear end 25 of the slot 23 receives the spigot 11 of the first skirt portion 10, as shown in the enlarged view EN3 of Fig. 6.

[0031] The perspective diagrams of Fig. 7 and Fig. 8 show the workstation when the movable desk portion 8 has been moved to a third position, by sliding the movable desk portion 8 forwardly towards the user from the first position of Fig. 5. As shown in the enlarged view EN5, the spigot 11 has been slid along the slot 23, from the rear end of the slot towards the front end of the slot, to allow the movable desk portion 8 to reach the third position.

[0032] Also as shown in Fig. 8, the slider 31 has been slid along the slide rail 32, from adjacent the front edge of the movable desk surface 9, towards the rear edge 9R of the movable desk surface 9. The spigot 11 inside the middle region of the slot 23 prevent the slider 31 from pivoting about the pivot on the first sidewall 21, thereby maintaining the movable desk surface 9 horizontal as it is slid from the first position into the third position.

[0033] The perspective diagrams of Fig. 9 and Fig. 10 show the workstation when the movable desk portion 8 has been moved to a fourth position, by sliding the movable desk portion 8 further forwardly and pivoting the front edge 9F of the movable desk surface 9 downwardly until the movable desk portion 8 contacts the lower desk 3, as shown in Fig. 9. This movement is guided by the motion of the spigot 11 inside the slot 23, as shown in the enlarged view EN6 of Fig. 10. Specifically, as the movable desk portion 8 is slid further forwardly, the spigot 11 enters the upwardly angled front end 24 of the slot 23 in the second sidewall of the trough 20. As shown in the enlarged view EN7 of a region of the workstation generally designated by arrow AR3, this causes the slider 31 to pivot about the pivot 30 attached to the first sidewall 21 of the trough. Although EN6 shows the left side trough and EN7 shows the right side trough, it will be appreciated that the left and right troughs are symmetrical to one another, about the center slice CNT marked on Fig. 5. Accordingly, each trough has a pivot 30 attached to its first side, and a slot 23 in its second side.

[0034] A second embodiment of the invention will now be described with reference to Figs. 11 to 18. The base of lifting mechanism of the second embodiment are the same as the first embodiment, and so have been omitted from the Figs showing the second embodiment.

[0035] Fig. 11 shows a perspective view of the workstation of the second embodiment. An upper desk 5a comprises a fixed desk portion 6a, and a movable desk portion 8a. The fixed desk portion 6a has a fixed desk surface 7a, upon which a computer monitor may be placed, and the movable desk portion 8a has a movable desk surface 9a. The upper desk 5a is connected to a lower desk 3a by connecting portions 4a.

[0036] The movable desk portion is shown in a second position in Fig. 11, with a rear edge 9Ra of the movable desk surface 9a pivoted upwardly relative to a front edge

9Fa of the movable desk surface 9a. Accordingly, the movable desk surface 9a can serve as a document holder to assist reading of documents placed upon it when the movable desk surface 9a is in the second position, the same as in the first embodiment.

[0037] The movable desk surface 9a has a right side edge 9RSa, and first and second skirt portions 10a and 12a are provided between the right side edge 9RSa and the fixed desk surface 7a, to prevent human fingers from entering into the space (gap) between the right side edge 9RSa and the fixed desk surface 7a. Similar first and second skirt portions (not shown in Figs) are present between the left side edge 9LSa and the fixed desk surface 7a, for the same reason. The first and second skirt portions are each substantially triangular plates, similar to the first embodiment.

[0038] The first skirt portion 10a is fixedly attached to the movable desk portion beneath the right side edge 9RSa, and in contrast to the first embodiment does not have any spigot protruding outwardly. The second skirt portion 12a is movably attached to the first skirt portion 10a, and has an arched slot 13a extending along a width of the second skirt portion 12a. The arched slot receives a protrusion of the first skirt portion 10a, in the same manner as the first embodiment.

[0039] The perspective diagram of Fig. 12 shows a view from beneath the workstation, and the enlarged view EN8 shows a trough 20a which the first and second skirt portions can be retracted into when moving the movable desk portion 8a into a first position (shown in Fig. 13), in the same manner as the first embodiment. A first sidewall 21 a of the trough 20a has a slot 23a. The slot 23a is substantially the same as the slot 23 of the first embodiment, except the slot 23a is provided on the first (inward) sidewall 21 a of the trough 20a, whereas the slot 23 is provided on the second (outward) sidewall 22 of the trough 20 in the first embodiment. Additionally, in the second embodiment, the first sidewall 21 a has a further slot 19a running parallel to the slot 23a, as shown in the enlarged view EN8 of Fig. 12. This slot 19a has a series of height setting cradles 16a aligned in a row at a rear end of the slot 19a, along the length of the trough, for receiving an outward protrusion at an end of a height setting member 17a. The height setting cradle in which this outward protrusion is received determines how far the rear edge 9Ra of the movable desk surface 9 is pivoted upwardly in the second position. The outward protrusion can be seen in Fig. 18, and is labelled 17p.

[0040] The enlarged view EN8 also shows that the first sidewall 21 a of the trough 20a has an extended portion 33a, which extends inwardly from the first sidewall 21 a. The extended portion has a pivot which extends into a socket of a slider 31 a, in a similar manner to the pivot 30 of the first embodiment. The pivot of the second embodiment is fixedly connected to the trough 20a of the fixed desk portion 6a at a position adjacent the front edge 9Fa of the movable desk surface when the movable desk portion is in the first and second positions. The pivot al-

lows pivoting of the slider 31 a relative to the trough 20a and the fixed desk portion 6a, and is slidably attached to a slide rail 32a, similar to the slide rail 32 of the first embodiment.

[0041] When the movable desk portion 8a is moved from the second position (shown in Fig. 11) to a first position (shown in Fig. 13), the rear edge 9Ra of the movable desk surface 9a pivots downwardly about the pivot, until the movable desk surface 9a and the fixed desk surface 7a together form a substantially planar surface. Each trough 20a also has a second sidewall 22a opposite the first sidewall 21 a, and the first and second sidewalls define a channel 20Ca between them, in which the first and second skirt portions 10a and 12a are stored when the movable desk portion is in the first position, similar to the first embodiment.

[0042] As shown in Fig. 13, the fixed desk portion 6a has a cutaway 28a so that a user is able to insert their fingers into the cutaway 28a, to lift the movable desk portion 8a from the first position shown in Fig. 13 to the second position shown in Fig. 11, in a similar manner to the first embodiment. Optionally, the front edge 9Fa of the movable desk surface 9a may be provided with a small upward ridge to help retain any documents placed on the movable desk surface 9a when the movable desk portion is in the second position, the same as in the first embodiment.

[0043] Also shown in Fig. 13 is a center slice CNTa which is orientated vertically through the workstation, and in this embodiment the left and right sides of the workstation about the center slice CNTa are entirely symmetrical with one another. The center slice CNTa is only conceptual and so is shown in dotted lines. Parts that are said to extend outwardly, extend away from the center slice CNTa, and parts that are said to extend inwardly, extend towards the center slice CNTa. Also marked on Fig. 13 are the upward direction U, downward direction D, forward direction F, rearward direction Rr, left direction L, and right direction R.

[0044] Fig. 14 shows a perspective view from beneath the workstation when the movable desk portion 8a is in the first position. The enlarged view EN9 shows that the slider 31 a has been pivoted relative to the extended portion 33a of the trough 20a, so that the slide rail 32a now extends generally parallel to the trough 20a.

[0045] The first sidewall 21 a has the slot 23a aligned along a length of the trough, and the slot 23a has a front end 24a and a rear end 25a. Both the front and the rear ends of the slot are angled upwardly in a direction towards the fixed desk surface 7a, and a middle region of the slot 23a between the front end 24a and a rear end 25a extends substantially horizontally.

[0046] A mounting bracket 35a is fixedly attached to an underside of the movable desk portion 8a, adjacent the rear edge 9Ra and the right side edge 9RSa of the movable desk surface. An equivalent mounting bracket (not shown) is attached adjacent the rear edge 9Ra and the left side edge 9LSa, since the workstation is symmet-

rical about the slice CNTa (Fig. 13). The mounting bracket 35a comprises a spigot 11 a that extends outwardly from the mounting bracket 35a and into the slot 23a of the trough 20a. The rear end 25a of the slot 23a receives the spigot 11 a of the mounting bracket 35a as the movable desk portion 8a is moved from the second position (shown in Fig. 11) to the first position (shown in Fig. 13).

[0047] The height setting member 17a is pivotally attached to the movable desk portion 8 by the mounting bracket 35a, as seen in the enlarged view EN9, and the outward protrusion 17p (shown in Fig. 18) at the end of the height setting member 17a has been moved out of the height setting cradles 16a and allowed to slide along the slot 19a as the movable desk portion 8a is moved into the first position. In the first position, the first sidewall 21 a of the trough is received in a gap between the mounting bracket 35a and the first skirt portion 10a.

[0048] The height setting member 17a has a handle 36a attached to it, and which extends substantially parallel to the rear edge 9Ra of the movable desk surface when the movable desk portion 8a is in the first position. The handle 36a can be used to help select which of the height setting cradles 16a the outward protrusion 17p is received within. In this embodiment, the handle 36a is attached to both the height setting member 17a at the right side of the workstation and the equivalent height setting member at the left side of the workstation, so both of these height setting members can be moved together by moving the handle 36a.

[0049] The perspective diagrams of Fig. 15 and Fig. 16 show the workstation when the movable desk portion 8a has been moved to a third position, by sliding the movable desk portion 8a forwardly towards the user from the first position of Fig. 13. As shown in the enlarged view EN10, the spigot 11a has been slid along the slot 23a, from the rear end of the slot towards the front end of the slot, to allow the movable desk portion 8a to reach the third position.

[0050] Also as shown in Fig. 16, the slider 31 a has been slid along the slide rail 32a, from adjacent the front edge of the movable desk surface 9a, towards the rear edge 9Ra of the movable desk surface 9a. The spigot 11 a inside the middle region of the slot 23a prevents the slider 31 from pivoting about the pivot on the extended portion 33a of the first sidewall 21 a, thereby maintaining the movable desk surface 9a horizontal as it is slid from the first position into the third position.

[0051] The perspective diagrams of Fig. 17 and Fig. 18 show the workstation when the movable desk portion 8a has been moved to a fourth position, by sliding the movable desk portion 8a further forwardly and pivoting the front edge 9Fa of the movable desk surface 9a downwardly until the movable desk portion 8a contacts the lower desk 3a, as shown in Fig. 17. This movement is guided by the motion of the spigot 11 a inside the slot 23a, as shown in the enlarged view EN11 of Fig. 18. Specifically, as the movable desk portion 8a is slid further forwardly, the spigot 11 a enters the upwardly angled

front end 24a (see Fig. 14) of the slot 23a in the first sidewall 21a of the trough 20a. This causes the slider 31 a to pivot about the pivot attached to the extended portion 33a of the first sidewall 21 a.

[0052] Various other embodiments falling within the scope of the appended claims will also be apparent to those skilled in the art.

10 Claims

1. A height adjustable workstation, comprising a base, a lower desk, an upper desk, and a lifting mechanism for raising and lowering the lower and upper desks relative to the base, the lower desk for supporting a keyboard and the upper desk for supporting a computer monitor, wherein:

the upper desk comprises a movable desk portion and a fixed desk portion, the movable desk portion being pivotally connected to the fixed desk portion,

the upper desk provides a substantially planar upper desk surface that comprises a fixed desk surface of the fixed desk portion and a movable desk surface of the movable desk portion, when the moveable desk portion is in a first position, the movable desk portion is movable from the first position to a second position by pivoting a rear edge of the movable desk surface upwardly relative to the fixed desk surface, thereby upwardly slanting the movable desk surface relative to the fixed desk surface to aid reading of any documents placed on the movable desk surface;

wherein a gap between the fixed desk surface and a side edge of the movable desk surface when the movable desk portion is in the second position, is filled by a skirt of the height adjustable workstation, to prevent human fingers from entering the gap.

2. The height adjustable workstation of claim 1, wherein the skirt comprises a plurality of portions that are movable relative to one another to increase and decrease a width of the skirt, the width of the skirt being progressively increased as the rear edge of the movable desk surface is pivoted upwardly relative to the fixed desk surface to move from the first position to the second position.
3. The height adjustable workstation of claim 2, wherein the skirt comprises a first portion that is fixedly connected to the movable desk portion, a second portion that is movably connected to the first portion, and a cradle and protrusion, the first portion comprising the cradle and the second portion comprising the protrusion, or the first portion comprising the protrusion

and the second portion comprising the cradle, wherein the protrusion moves into the cradle to lift the second portion as the movable desk portion is moved upwardly from the first position to the second position.

4. The height adjustable workstation of claim 3, wherein the cradle is formed by an end of an arched slot in the first portion in the case where the first portion comprises the cradle, or wherein the cradle is formed by an end of an arched slot in the second portion in the case where the second portion comprises the cradle.

5. The height adjustable workstation of claim 2, 3, or 4, wherein the height adjustable workstation further comprises a trough that is fixedly connected to the fixed desk portion beneath the side edge of the movable desk surface, the trough having opposing first and second sides, and wherein the skirt is retracted into the trough when the movable desk portion is moved into the first position.

6. The height adjustable workstation of any preceding claim, further comprising a height setting member that is pivotally connected to the movable desk portion, and a plurality of height setting cradles connected to the fixed desk portion for receiving an end of the height setting member or receiving a protrusion of the height setting member, wherein the end or protrusion of the height setting member is selectively received in one of the height setting cradles when the movable desk portion is in the second position, to set an extent to which the rear edge of the movable desk surface is pivoted upwardly relative to the fixed desk surface in the second position.

7. The height adjustable workstation of claim 6 when appended to claim 5, wherein the height setting cradles are formed within the first side of the trough, and aligned in a row along a length of the trough.

8. The height adjustable workstation of claim 6, further comprising a member fixedly connected to the fixed desk portion, extending to directly beneath a central region of the movable desk portion, and having the height setting cradles formed in a row along the extension of the member.

9. The height adjustable workstation of any preceding claim, wherein the movable desk portion is pivotally connected to the fixed desk portion by a pivot that is fixedly connected to the fixed desk portion at a position adjacent a front edge of the movable desk surface when the movable desk portion is in the first and second positions.

10. The height adjustable workstation of claim 5, or claim

6 when appended to claim 5, or claim 7, or claim 8 when claim 6 is appended to claim 5, wherein the movable desk portion is pivotally connected to the fixed desk portion by a pivot that is fixedly connected to the fixed desk portion at a position adjacent a front edge of the movable desk surface when the movable desk portion is in the first and second positions, the pivot being attached to the trough at a position adjacent the front edge of the movable desk surface when the movable desk portion is in the first and second positions.

11. The height adjustable workstation of claim 9 or 10, wherein the movable desk portion comprises a slide rail beneath the movable desk surface, the slide rail extending substantially parallel to the side edge of the movable desk surface, wherein the pivot is attached to a slider that is slidably connected to the slide rail, the slider being slidable from adjacent the front edge of the movable desk surface towards the rear edge of the movable desk surface to move the movable desk portion forwardly into a third position.

12. The height adjustable workstation of claim 11 when appended to claims including claim 5, further comprising a mounting bracket attached to the movable desk portion, the mounting bracket comprising a spigot that is slidable along a slot extending along the first or second sides of the trough, the spigot being slid along the slot as the movable desk portion is moved forwardly into the third position.

13. The height adjustable workstation of claim 12 when appended to claims including claim 6, wherein the pivotal connection of the height setting member to the movable desk portion comprises the mounting bracket, and wherein the height adjustable workstation optionally comprises a handle that is attached to the height setting member and which extends substantially parallel to the rear edge of the movable desk surface when the movable desk portion is in the first position.

14. The height adjustable workstation of claim 11 when appended to claims including claim 3, wherein the first portion of the skirt comprises a spigot that is slidable along a slot extending along the first or second sides of the trough, the spigot being slid along the slot as the movable desk portion is moved forwardly into the third position.

15. The height adjustable workstation of any one of claims 12 to 14, wherein at least of:

a front end of the slot extending along the first or second sides of the trough, extends upwardly in a direction towards the fixed desk surface, to allow the spigot to move upwardly and the front

edge of the movable desk surface to pivot downwardly until the movable desk portion contacts the lower desk when moving the movable desk portion from the third position to a fourth position; and

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a rear end of the slot extending along the first or second sides of the trough, extends upwardly in a direction towards the fixed desk surface, to allow the spigot to move upwardly out of the slot when moving the movable desk portion from the first position to the second position.

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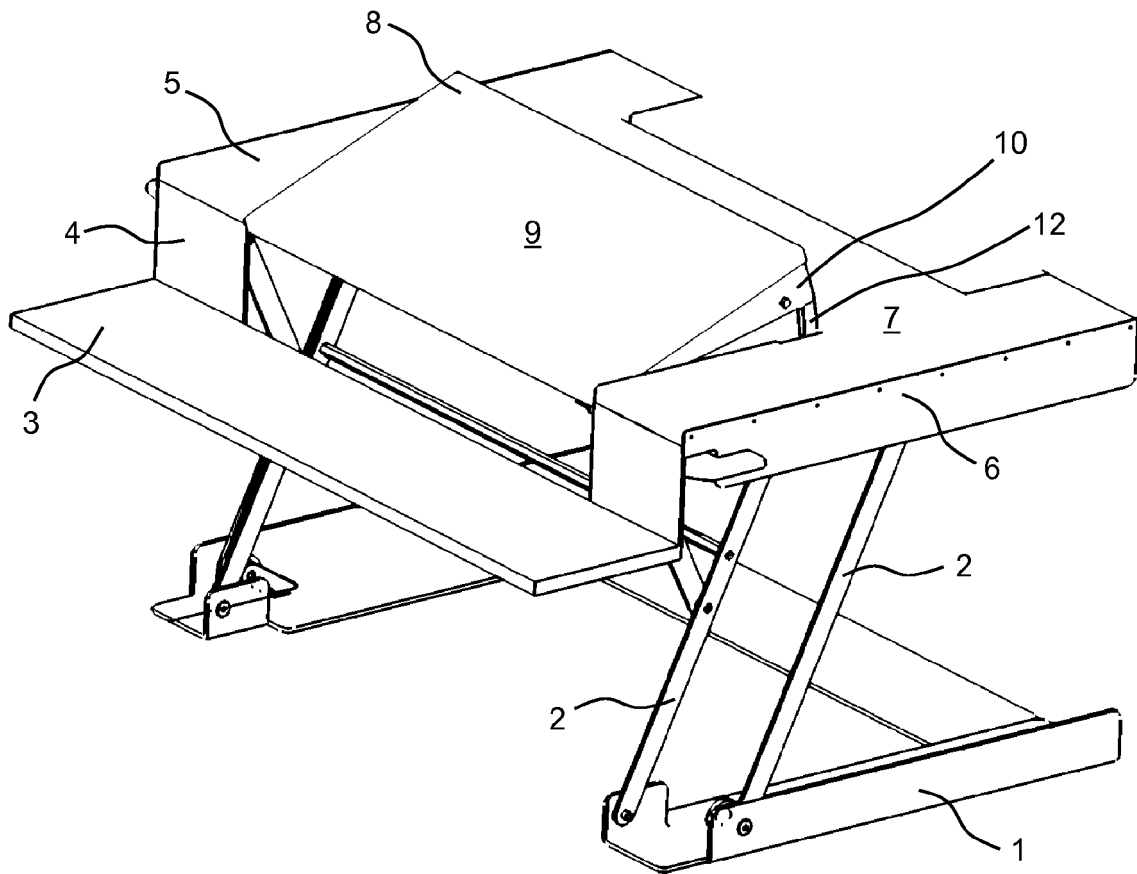


Fig. 1

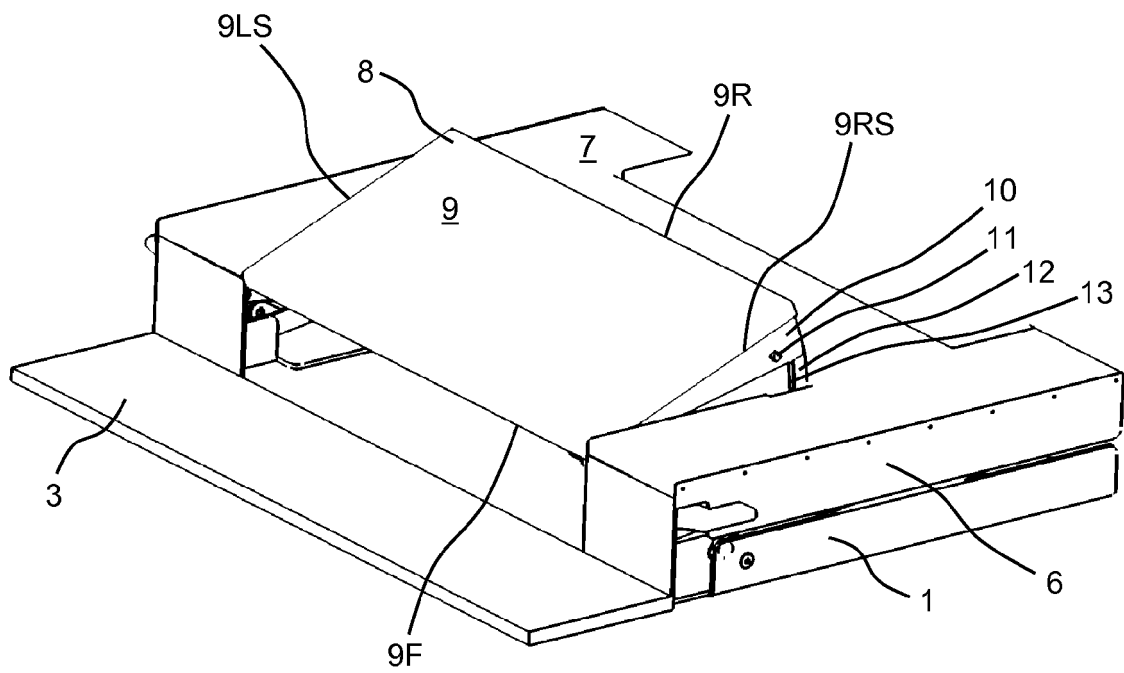


Fig. 2

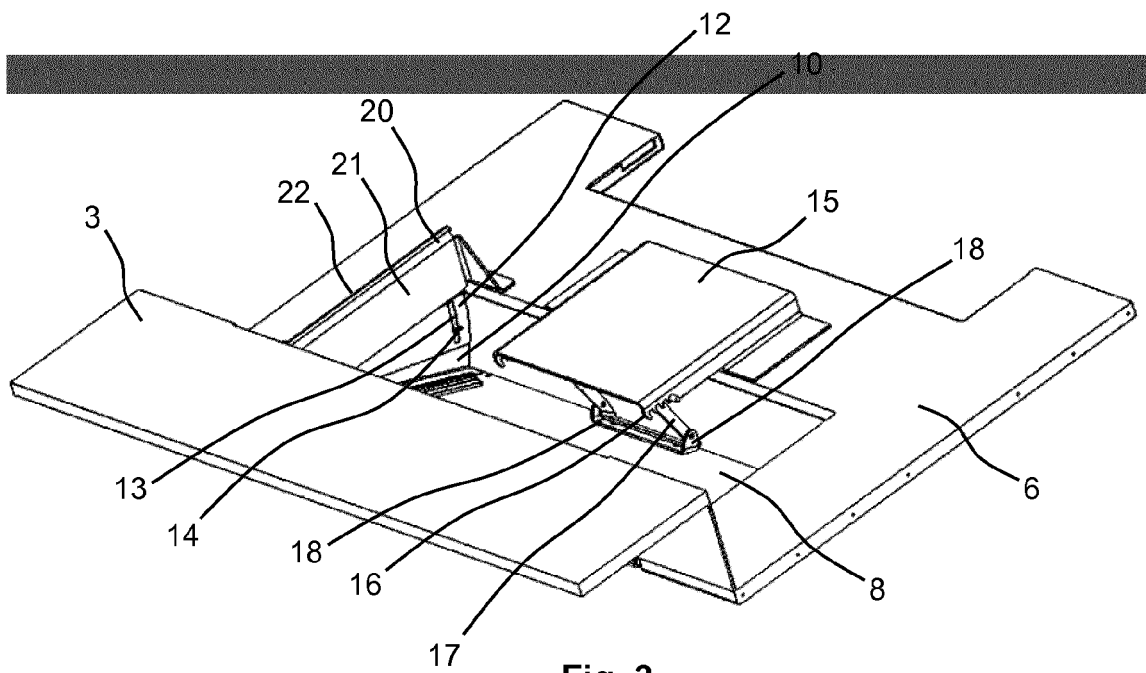


Fig. 3

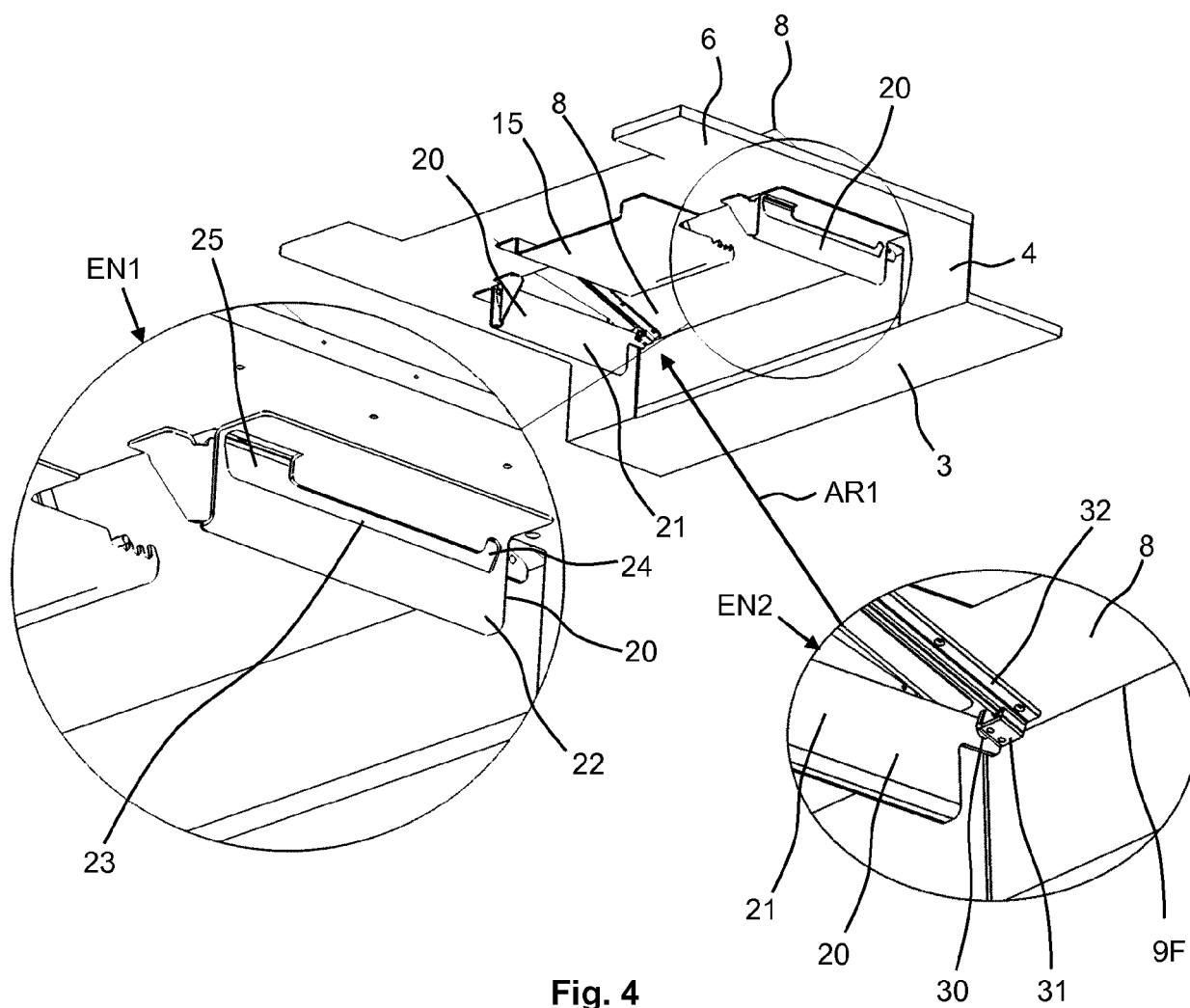


Fig. 4

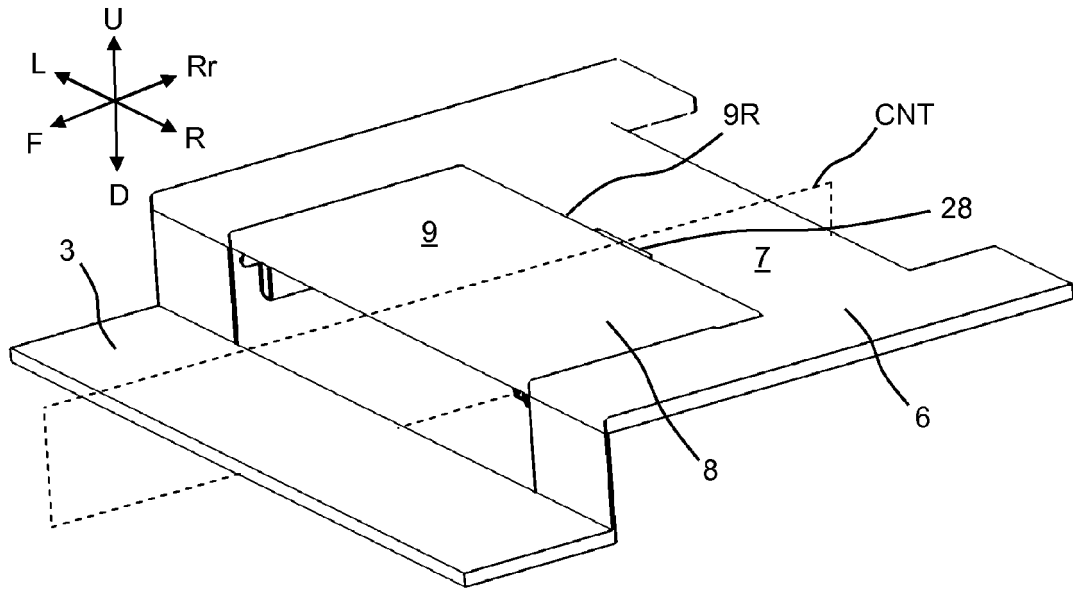


Fig. 5

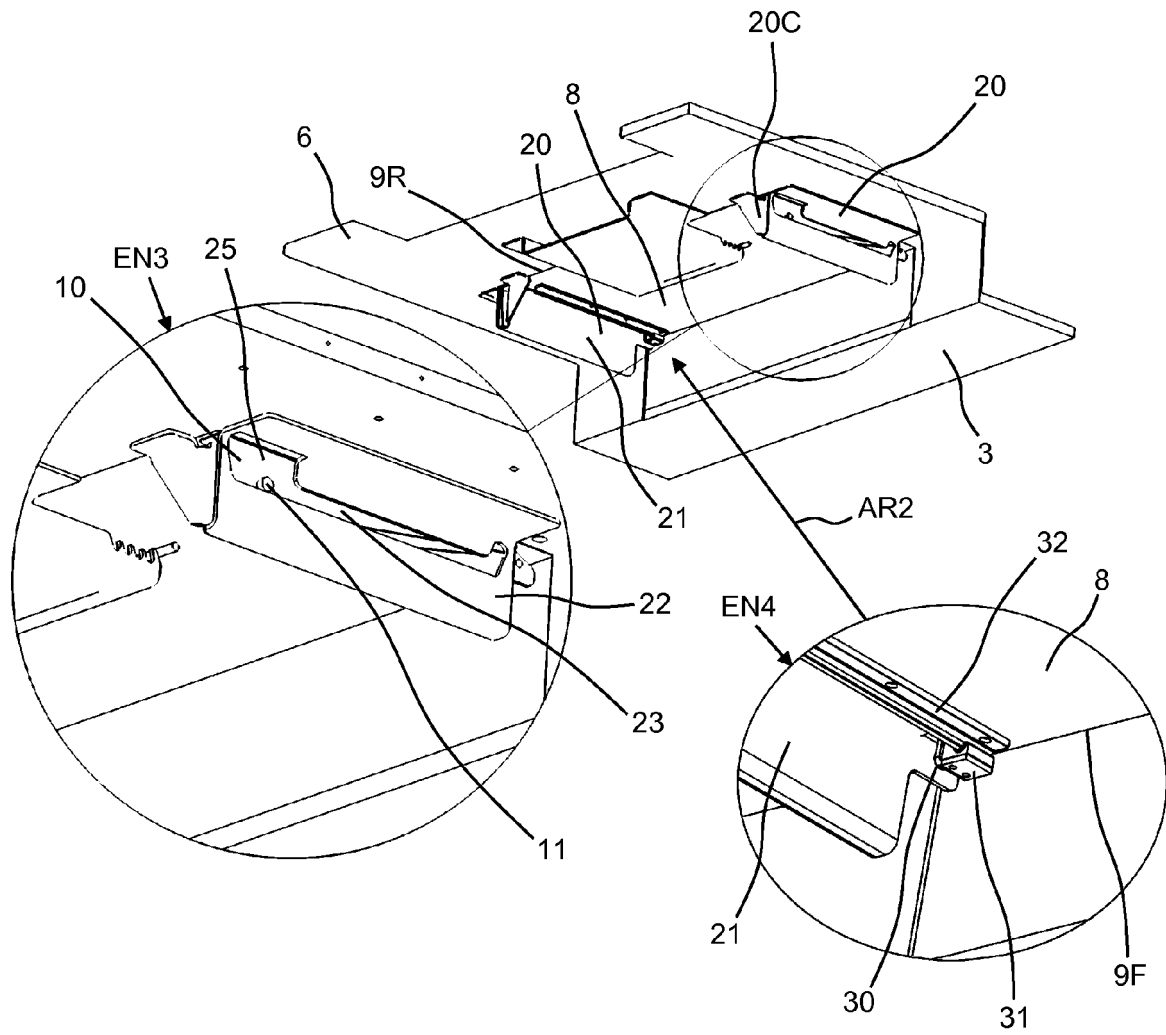


Fig. 6

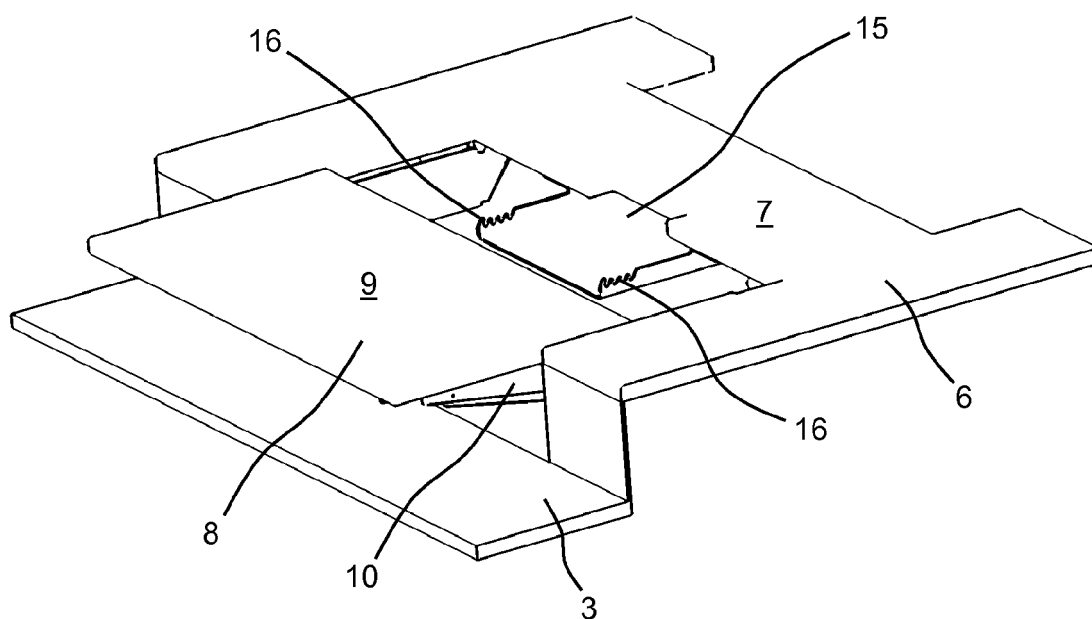


Fig. 7

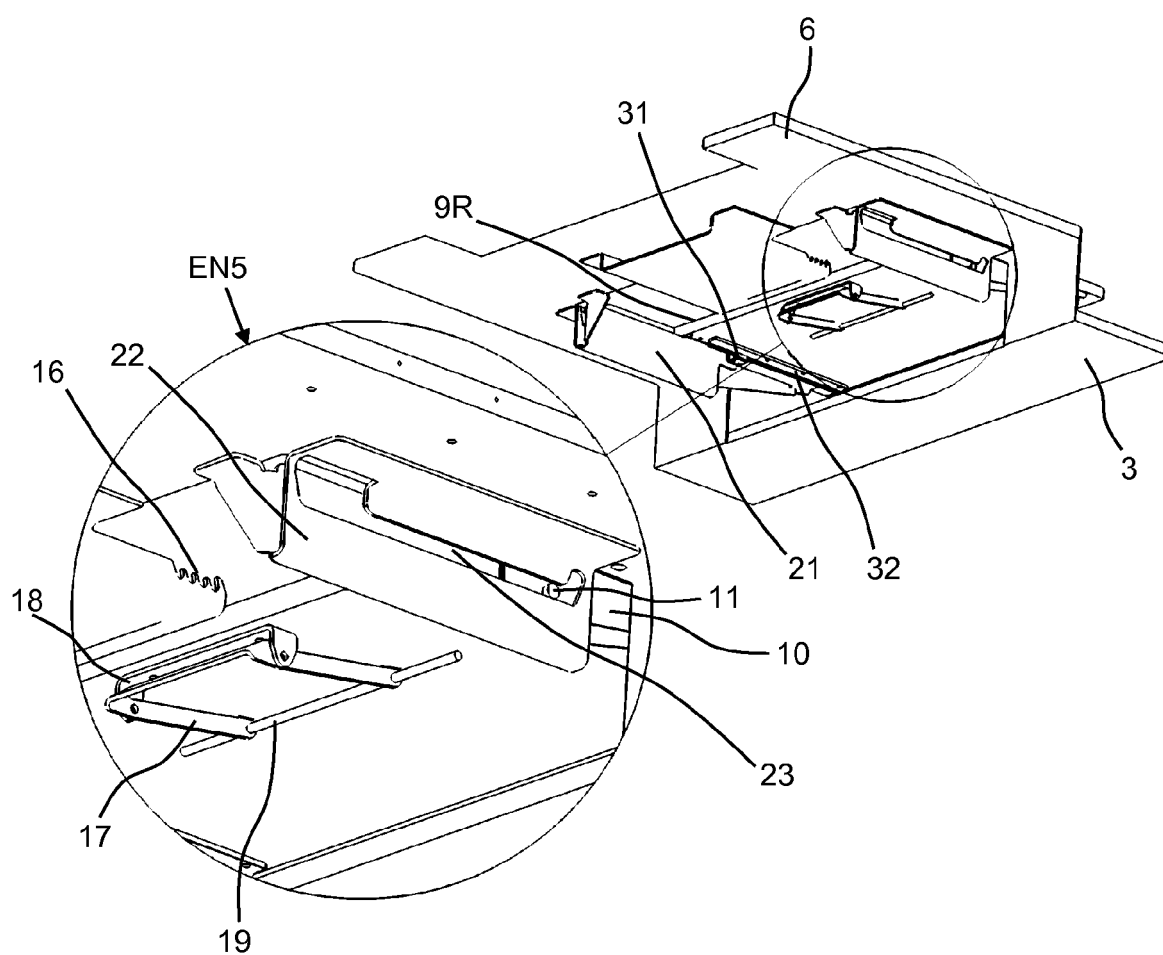


Fig. 8

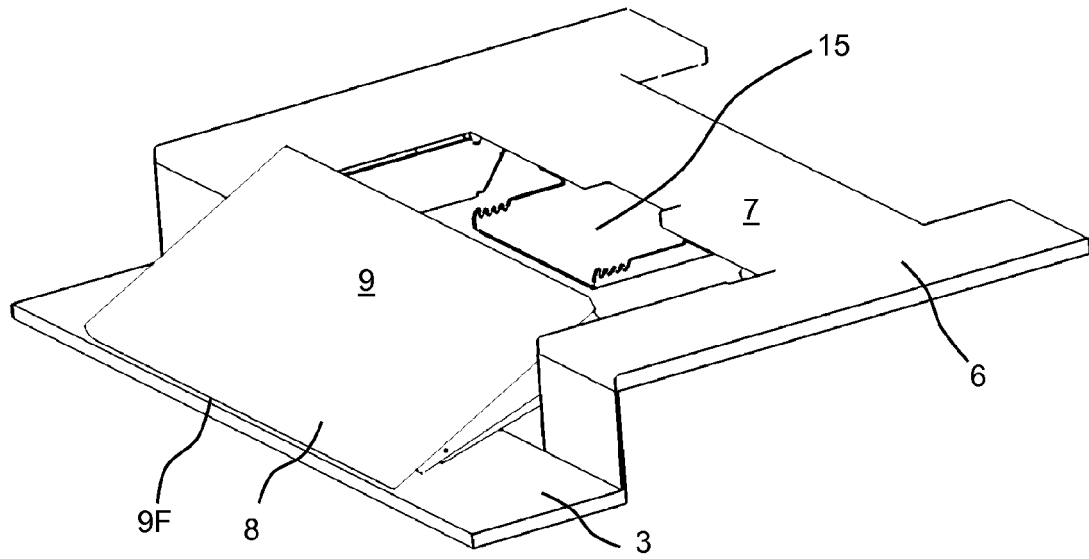


Fig. 9

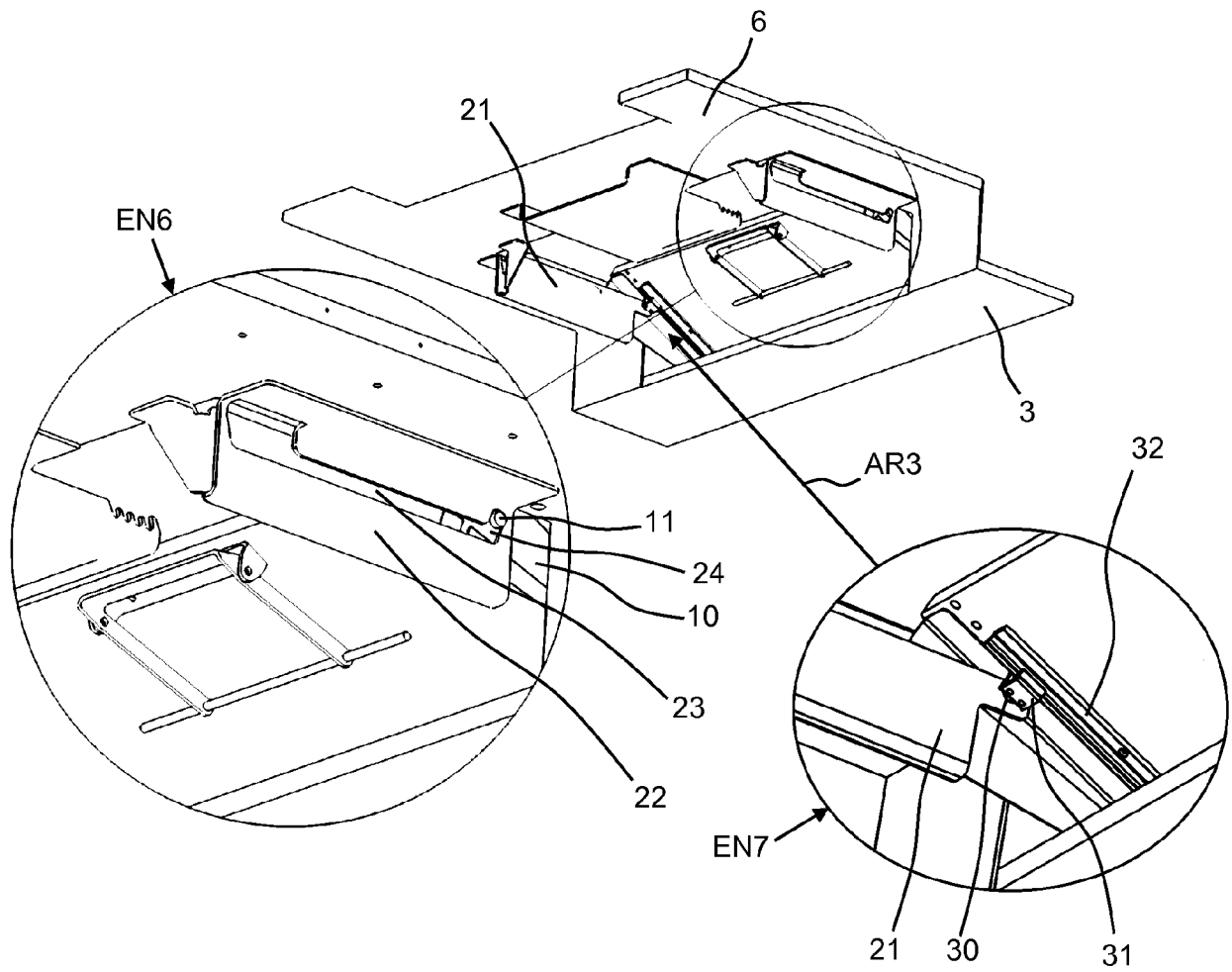


Fig. 10

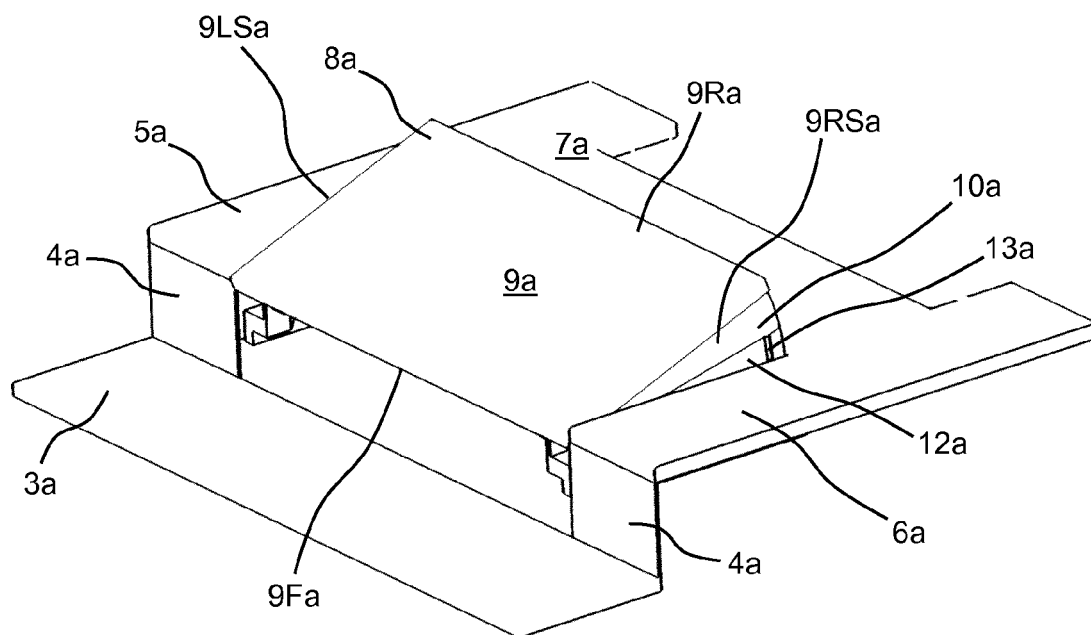


Fig. 11

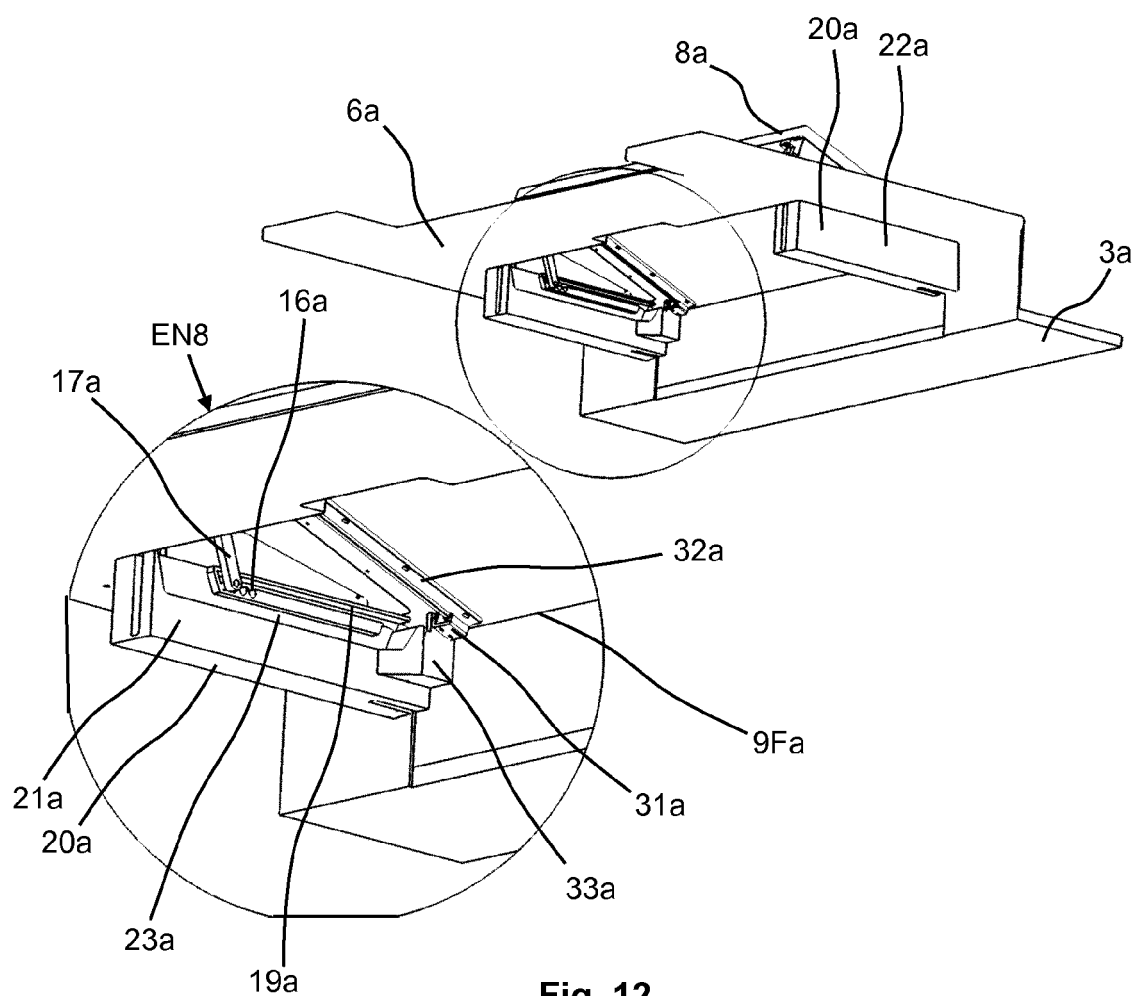


Fig. 12

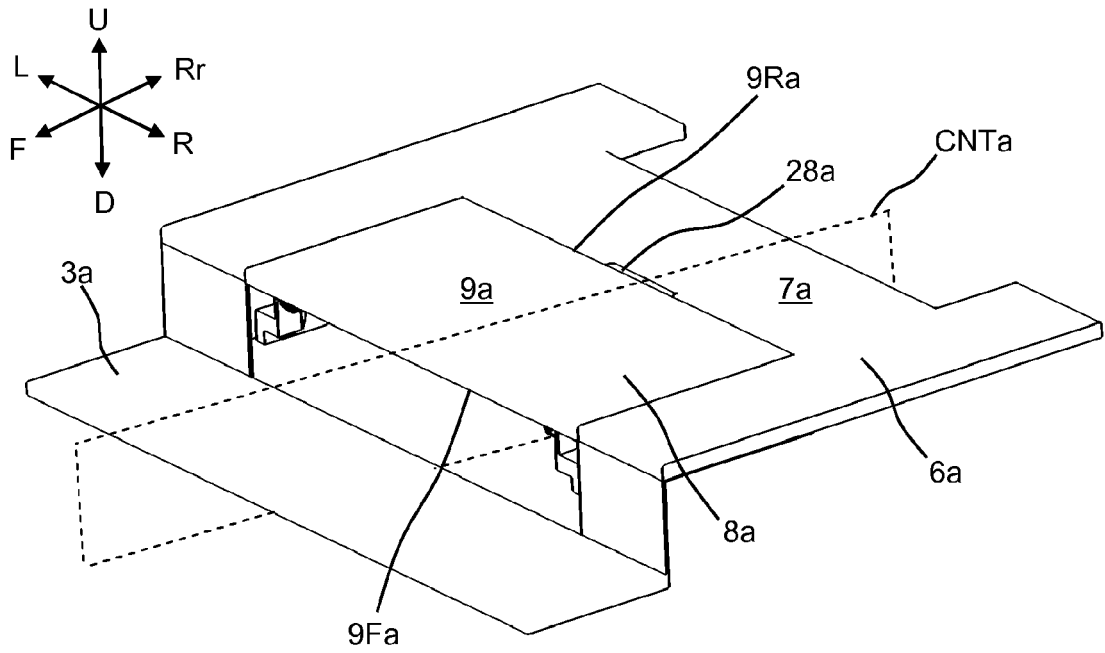


Fig. 13

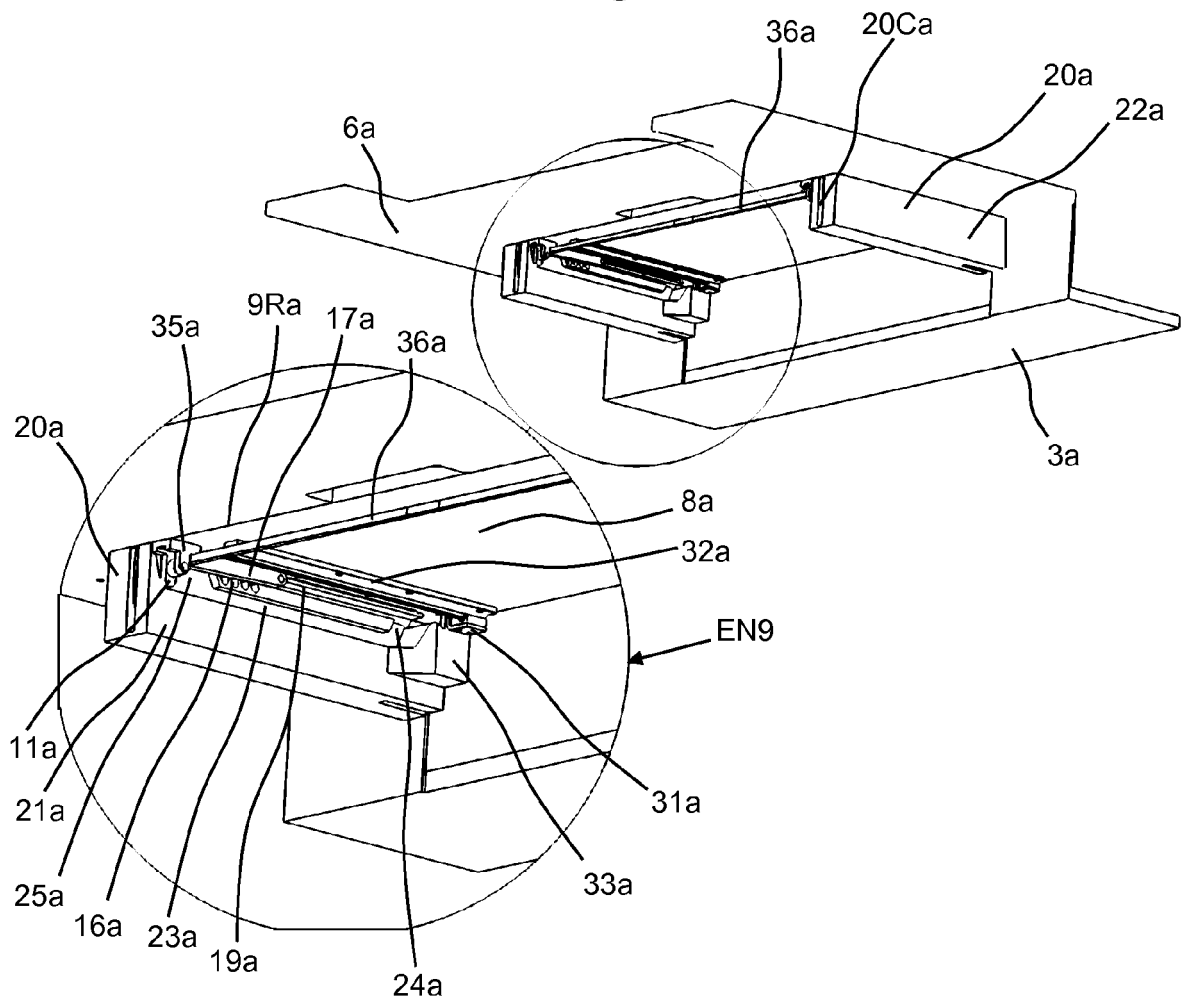


Fig. 14

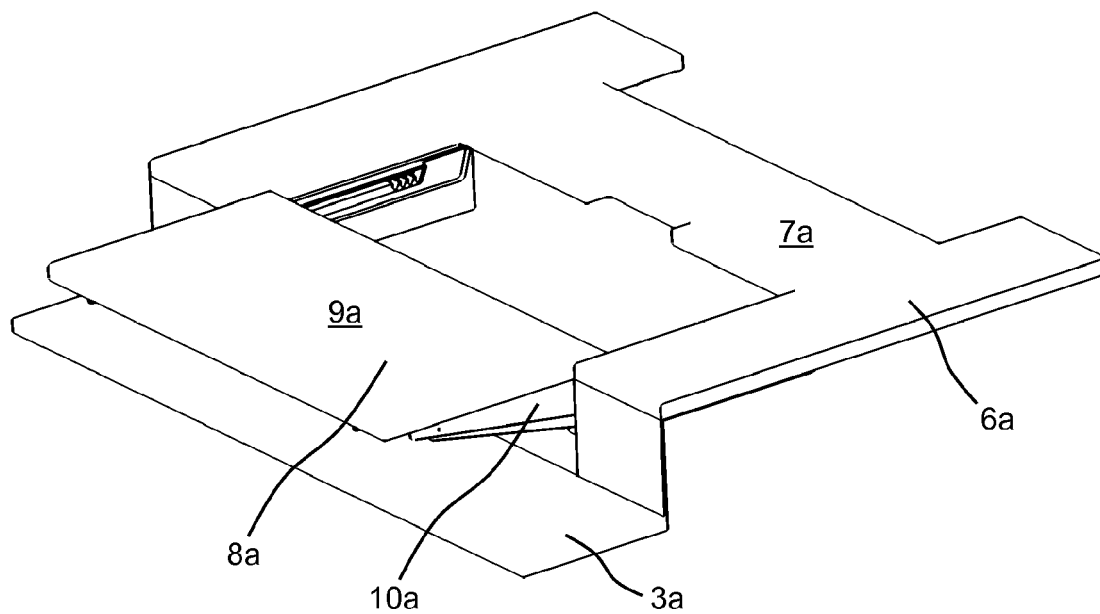


Fig. 15

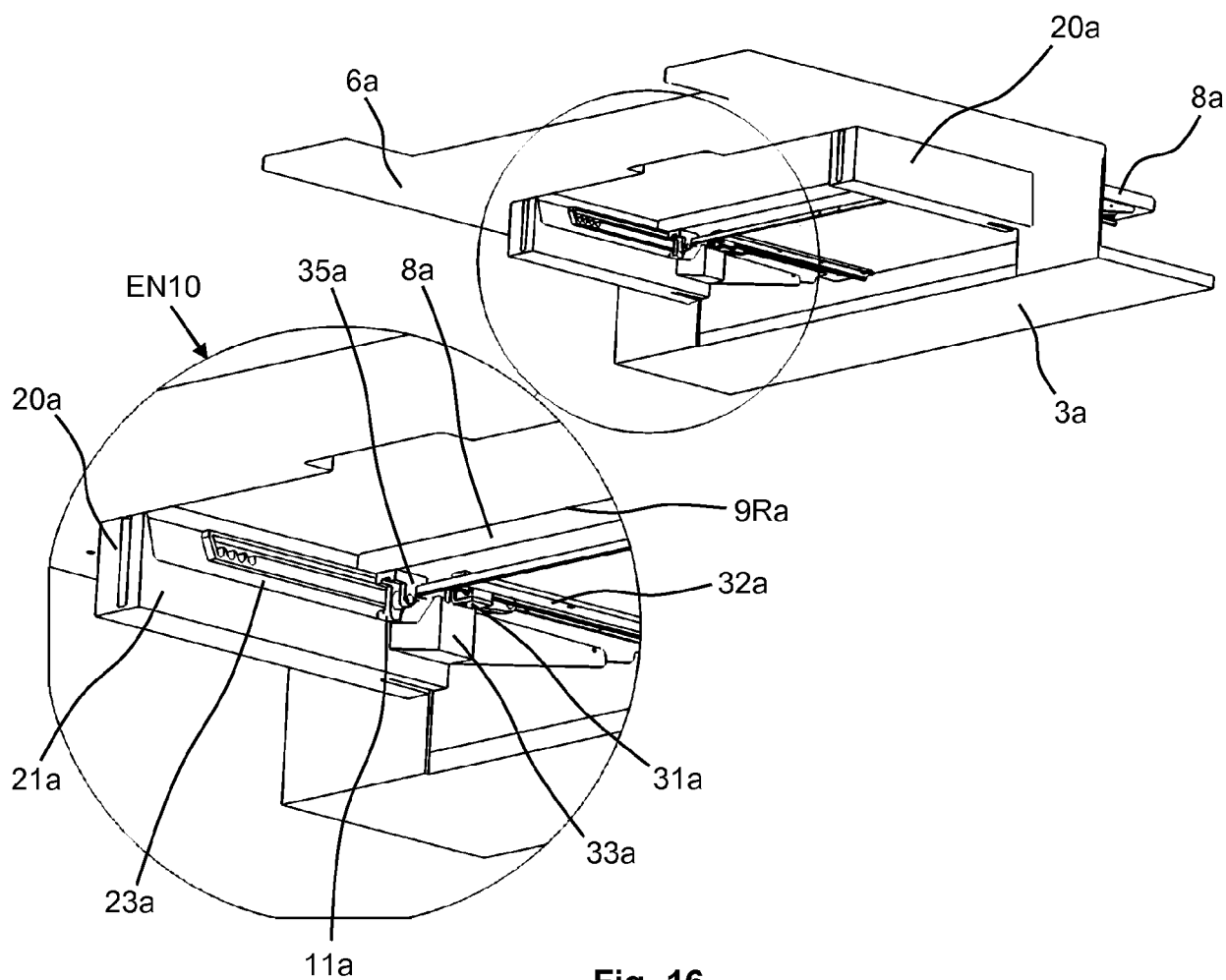


Fig. 16

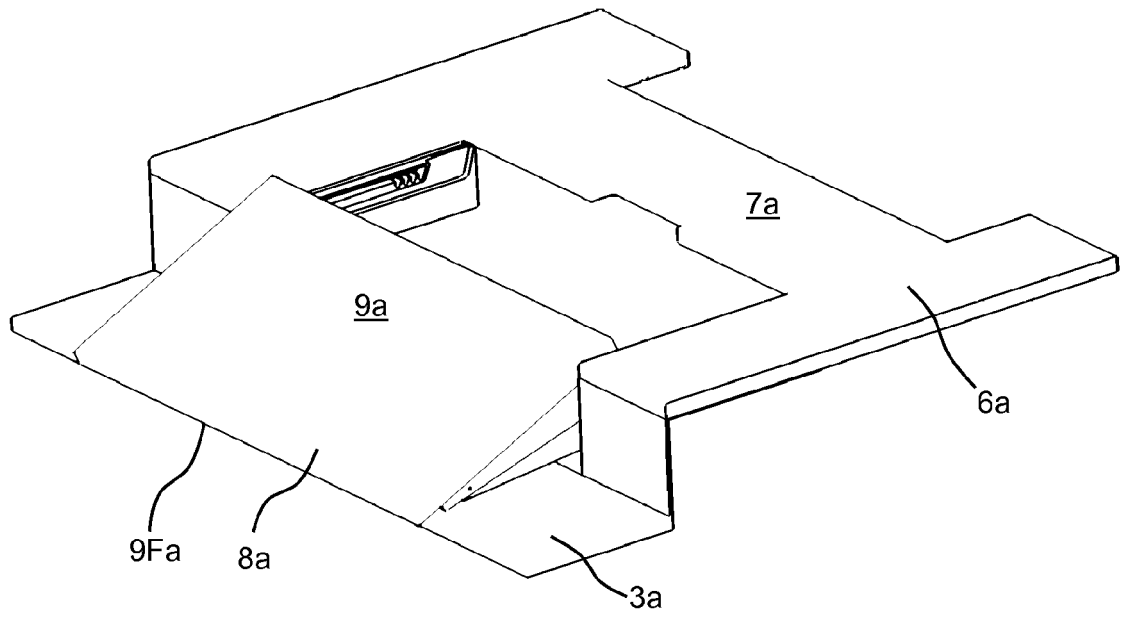


Fig. 17

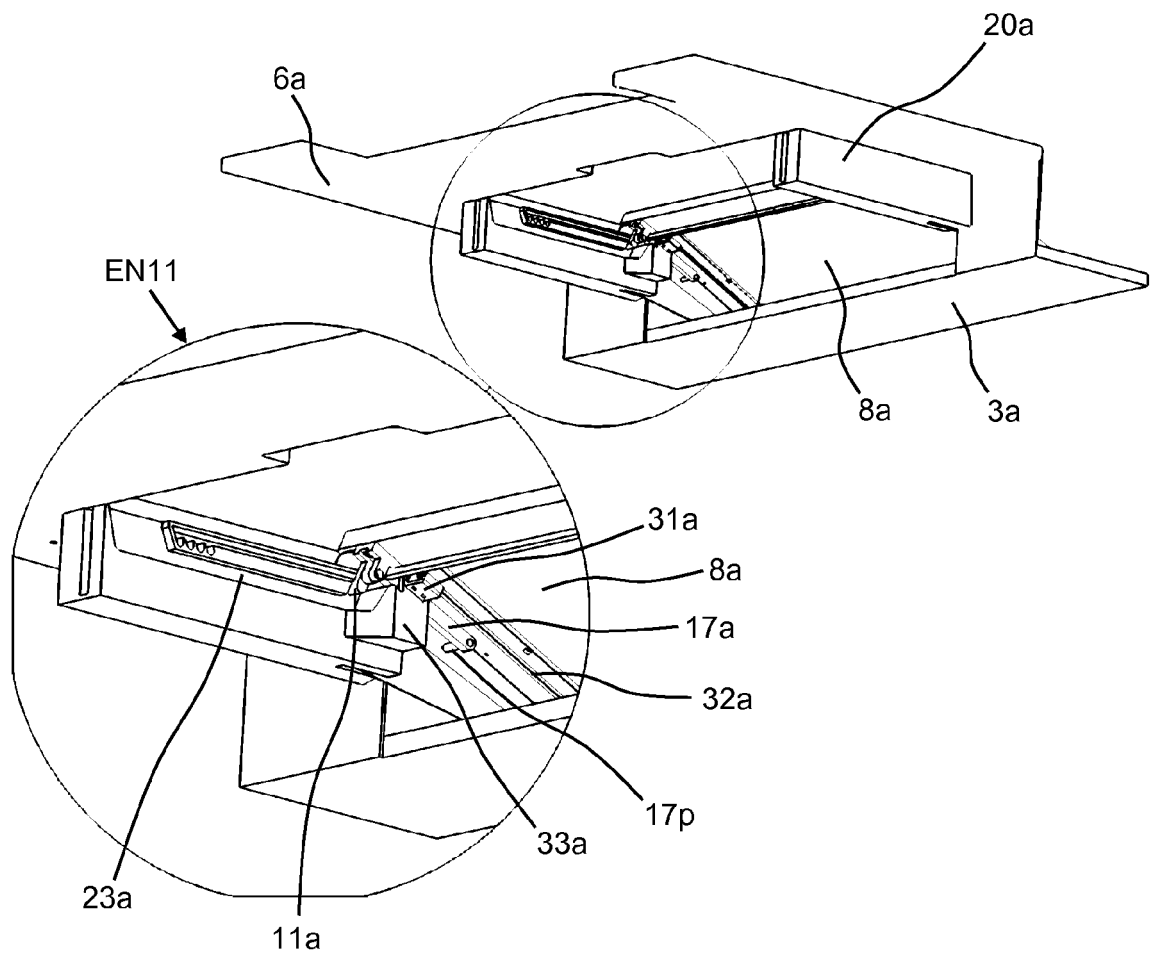


Fig. 18



EUROPEAN SEARCH REPORT

Application Number
EP 17 17 7955

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| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|--|---|--|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
| X | US 4 515 086 A (KWIECINSKI ALFRED [US] ET AL) 7 May 1985 (1985-05-07) * figures 1-6 * | 1,6-9 | INV. A47B9/16 A47B21/02 A47B21/03 |
| X | US 5 704 299 A (CORPUZ JR ROQUE MATIAS [US] ET AL) 6 January 1998 (1998-01-06) * figures 1-12 * | 1,6-9 | |
| X | US 2006/065166 A1 (CHI YUEH [TW] ET AL) 30 March 2006 (2006-03-30) * figures 1-4 * | 1,2,9 | |
| | | | TECHNICAL FIELDS SEARCHED (IPC) |
| | | | A47B |
| The present search report has been drawn up for all claims | | | |
| Place of search The Hague | | Date of completion of the search 24 October 2017 | Examiner Linden, Stefan |
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EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 17 17 7955

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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24-10-2017

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|------------------------------|--------------------------|
| US 4515086 A | 07-05-1985 | AU 558310 B2 US 4515086 A | 29-01-1987 07-05-1985 |
| ----- | ----- | ----- | ----- |
| US 5704299 A | 06-01-1998 | NONE | |
| ----- | ----- | ----- | ----- |
| US 2006065166 A1 | 30-03-2006 | NONE | |
| ----- | ----- | ----- | ----- |

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82