I CLAIM:

1. A seating mechanism comprising:

a frame;

a thigh support pivotally mounted to the frame along a transverse first pivot axis, the thigh support having a portion extending forwardly of the first pivot axis and a portion extending rearward of the pivot axis;

a pelvic cradle pivotally mounted at a transverse second pivot axis to the rearward extending portion of the thigh support, wherein the second pivot axis is located rearward of and above the first pivot axis, the cradle being adapted to pivot with respect to the thigh support and being receptive to the pelvic region of a human to support the pelvic region and torso of the user in vertical alignment independently of the inclination of the forward portion of the thigh support, the second pivot axis being movable upwardly and forwardly as the forward portion of the thigh support tilts forwardly, whereby as the thigh support tilts forwardly the second pivot axis is moved forwardly, approaching vertical alignment with the first pivot axis and lessening the force on the thigh support required to maintain the position of the mechanism, wherein the pelvic cradle is connected to the frame by a stabilizing link, the stabilizing link pivoted at one end to the frame at a transverse third pivot axis and at the other end to the cradle at a transverse fourth pivot axis, thereby to stabilize the cradle in a constant attitude throughout the range of movement of the seating mechanism, wherein the transverse third and first pivot axes are spaced apart at a fixed distance;

the thigh support and the first and second pivot axes being located and arranged to provide a mechanical advantage sufficient to enable the user to control the position of the thigh support about the first pivot axis to vary the seating angle of the user while counterbalancing the weight of the user's pelvis and torso by applying thigh pressure to the forward portion of the thigh support.

~~2. The seating mechanism as defined in claim 1 wherein the second pivot axis is located rearward of and above the first pivot axis, whereby as the thigh support tilts forwardly the second pivot axis is moved forwardly, approaching vertical alignment with the first pivot axis and lessening the force on the thigh support required to maintain the position of the mechanism.~~

~~3.~~2. The seating mechanism as defined in claim 1 further comprising a stop member

disposed on the frame and engageable with the thigh support to limit the extent to which the thigh support can rotate rearwardly.

4.3. The seating mechanism as defined in claim 1 further comprising the cradle having a seat portion and a back portion, the seat portion having leg cutouts at its sides.

~~5.~~4. The seating mechanism as defined in claim 1 wherein the pelvic cradle is free to pivot about the second pivot axis independently of the position of the thigh support.

~~6. The seating mechanism as defined in claim 1 wherein the pelvic cradle is connected to the frame by a stabilizing link pivoted at one end to the frame and at the other end to the cradle, thereby to stabilize the cradle in a constant attitude throughout the range of movement of the seating mechanism.~~

~~7.~~5. The seating mechanism as defined in claim ~~6~~ 1 wherein the stabilizing link and the connections between the first and second pivot axes define a four bar linkage.

~~8.~~6. The seating mechanism as defined in claim 1 further comprising:

the frame including an assembly having a seat segment and a back segment; at least one elongate, flexible, resilient, profile band mounted to the frame at at least one fixed location on the frame and having a back segment extending along the back segment of the frame, each profile band having a lumbar portion adapted to bulge forwardly at the level of the lumbar region; the pelvic cradle being connected to the profile band to apply a variable compressive force to at least a portion of the profile band along its elongate direction whereby the degree of bulge of the lumbar region of each profile band is controllable in response to the position of the thigh support.

~~9.~~7. The seating mechanism as defined in claim ~~6~~ 1 further comprising a seat back rigidly connected to and extending upwardly from the pelvic cradle, the cradle and seat back being movable as a unit.

~~10. A seating mechanism comprising:~~

~~a frame;~~

~~a seat pivotally mounted to the frame along a transverse first pivot axis, the seat having a portion extending forwardly of the first pivot axis and a portion extending rearward of the pivot axis;~~

~~a heightwise extending seat back pivotally mounted at a transverse second pivot axis to the rearward extending portion of the seat, the seat back being adapted to support a user's torso in vertical alignment with the user's pelvis independently of the inclination of the forward portion of the seat, the second pivot axis being movable upwardly and forwardly as the forward portion of the thigh support tilts forwardly;~~

~~a stabilizing link pivoted at one end to the frame ana at the other end to the seat back, thereby to stabilize the seat back in a constant, substantially vertical attitude throughout the range of movement of the seating mechanism.~~

~~The seat and the first and second pivot axes being located and arranged to provide a mechanical advantage sufficient to enable the user to control the position of the seat about the first pivot axis to vary the seating angle of the user while counterbalancing the weight of the user's pelvis and torso by applying thigh pressure to the forward portion of the seat.~~

~~11. The seating mechanism as defined in claim 10 wherein the rear portion of the seat is formed to define a depression.~~

~~12. A seating mechanism comprising:~~

~~a frame having forward and rearward portions;~~

~~a pair of substantially parallel links, each pivotally mounted at first and second pivot axes to the forward portion of the frame and extending rearwardly and upwardly;~~

~~a seating member disposed above the frame for supporting the pelvic region of a user, the upper ends of the parallel links each being pivotally connected at third and fourth pivot axes to the rearward portion of the seating member whereby pivoting the parallel links about their first and second pivots moves the seating member upwardly and forwardly while maintaining a constant attitude for the seating member;~~

a thigh support having forward and rearward portions, the rearward portion being pivotally connected to the seating member at the fourth pivot axis and extending forwardly of the seating member,

a guide link pivotally mounted to the rearward portion ofthe frame and extending upwardly and forwardly, the guide link being pivotally connected to the forward end of the thigh support;

the parallel and guide links and their respective pivots being arranged to enable downward force to be applied by the user's thighs to the thigh support to cause the thigh support to tilt forwardly while maintaining the seating member in a constant attitude thereby increasing the seating angle while enabling the user's spine and pelvis to remain in vertical alignment.

13. The seating mechanism as defined in claim 12 further comprising a seat back secured to and extending upwardly from the seating member.

14. A seating mechanism comprising:

a frame having forward and rearward portions;

a pair of substantially parallel links, pivotally mounted at first and second pivot axes, respectively, to the forward portion of the frame and extending rearwardly and upwardly;

a seat back disposed above the frame and having upper and lower portions, the upper ends of the parallel links being pivotally connected at third and fourth pivot axes, respectively, to the lower portion of the seat back whereby pivoting the parallel links about their first and second pivots moves the seat back upwardly and forwardly while maintaining a constant attitude for the seat back;

a seat disposed above the frame for supporting the pelvic region and thighs of a user, the rearward portion of the seat being pivotally connected to the seat back and one of the parallel links at the fourth pivot axis;

a guide link pivotally mounted to the rearward portion of the frame and extending upwardly and forwardly, the guide link being pivotally connected to the forward end of the seat;

~~the parallel and guide links and their respective pivots being arranged to enable downward force to be applied by the user's thighs to the forward portion of the seat to cause the seat to tilt forwardly while maintaining the seat back in a constant substantially vertical attitude thereby increasing the seating angle while enabling the user's spine and pelvis to remain in vertical alignment.~~