EUROPEAN PATENT SPECIFICATION

(12) CONTINUOUS SELF-ADJUSTING HEAD RESTRAINT SYSTEM
KONTINUIERLICHES, SELBSTVERSTELLBARES KOPFSTÜTZENSYSTEM
SYSTEME D’APPUIE-TETE A REGLAGE AUTOMATIQUE CONTINU

(84) Designated Contracting States:
DE FR GB

(30) Priority: 10.06.1999 US 138366 P

(43) Date of publication of application:
13.03.2002 Bulletin 2002/11

(73) Proprietor: Magna Seating Systems Inc.
Aurora, Ontario L4G 7K1 (CA)

(72) Inventors:
• AZAR, Hussam
  Southfield, MI 48076 (US)
• MILOSIC, Mari, C.
  Grosse Pointe Park, MI 48230 (US)
• SRIVASTAVA, Manoj
  Rochester Hills, MI 48309 (US)
• TAME, Omar, D.
  West Bloomfield, MI 48324 (US)
• VENTURA, Kevin, John
  Grosse Pointe Park, MI 48230 (US)
• BONTEKOE, Jacob, Aaron
  Linden, MI 48451 (US)

(74) Representative: Hössle Kudlek & Partner
Patentanwälte,
Postfach 10 23 38
70019 Stuttgart (DE)

(56) References cited:
EP-A- 0 594 527
FR-A- 1 244 928
FR-A- 2 602 133
US-A- 4 113 310

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).
Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The subject invention relates to a continuous self-adjusting head restraint system for a seat assembly, and more particularly, to a head restraint system which continuously and automatically adjusts its position in response to pivotal movement of a seat back relative to a seat cushion of the seat assembly.

2. Description of the Prior Art

[0002] Automotive vehicles include vehicle seat assemblies for supporting a seat occupant in the vehicle. The seat assemblies comprise a generally horizontal seat cushion and a generally upright seat back pivotally connected to the seat cushion by a recliner mechanism. The seat back is commonly pivotal about the seat cushion between a generally upright position and a fully reclined position. The seat assembly also commonly includes a head restraint coupled to the seat back for supporting the seat occupant's head. The head restraint is commonly adjustable, either manually or by power actuation, to adjust the height and/or pivotal displacement of the head restraint relative to the seat back. FR-A-1,244,928 discloses a seat assembly with the features of the preamble of claim 1.

[0003] However, it is desirable to automatically and continuously adjust the angle of the head restraint relative to the seat back in response to the seat back pivoting between the upright position and the fully reclined position.

SUMMARY OF THE INVENTION

[0004] The present invention relates to a seat assembly for use in an automotive vehicle of the type disclosed in FR-A-1,244,928 and having the features referred to in claim 1.

[0005] Further development in line with the invention are referred to in claims 2 to 8.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] Other advantages of the present invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

- Figure 1 is a side view of a seat assembly showing a head restraint in a normal position when a seat back is in an upright position and the head restraint in a forward angled position when the seat back is in a fully reclined position;

- Figure 2 is an exploded perspective view of the seat back, head restraint and an adjustment mechanism for pivoting the head restraint between the normal position and the forward angled position;

- Figure 3 is a fragmentary perspective view of the head restraint in the forward angled position and the adjustment mechanism in a second position;

- Figure 4 is a fragmentary side view of the seat back in the upright position and the head restraint in the normal position;

- Figure 5 is a fragmentary side view of the seat back partially reclined and the head restraint pivoted between the normal position and the forward angled position; and

- Figure 6 is fragmentary side view of the seat back in the fully reclined position and the head restraint in the forward angled position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0007] Referring to the Figures, a seat assembly is generally shown at 10 in Figure 1 for use in an automotive vehicle. The seat assembly 10 includes a generally horizontal seat cushion 12 for supporting a seat occupant on the seat assembly 10. The seat cushion 12 has a front portion 14 and a rear portion 16 spaced opposite the front portion 14. The seat assembly 10 further includes a seat back 18 pivotally coupled to the seat cushion 12 for pivotal movement between a generally upright position, as shown in solid lines in Figure 1, and a fully reclined position, as shown in dashed lines in Figure 1, relative to the seat cushion 12. The seat back 18 includes a lower portion 20 adjacent the rear portion 16 of the seat cushion 12 and an upper portion 22 spaced opposite the lower portion 20. The lower portion 20 of the seat back 18 is pivotally connected to the rear portion 16 of the seat cushion 12 by a recliner mechanism 24, as conventionally known to one skilled in the art. The seat assembly 10 further comprises a head restraint 26 pivotally coupled to the upper portion 22 of the seat back 18 for pivotal movement between a normal position when the seat back 18 is in the upright position and a forward angled position relative to the seat back 18 when the seat back 18 is in the fully reclined position to support the seat occupant's head.

[0008] Referring to Figure 2, a portion of the seat assembly 10 is shown in an exploded view. The seat cushion 12 includes a pair of seat cushion brackets 28, 30 for supporting the recliner mechanism 24 and defining a pivot axis A for the seat back 18. The seat back 18 includes a seat back frame 32 comprising a pair of spaced apart and generally parallel upright support rails 34, 36, each extending from a lower end 38 to an upper
end 40. An upper cross rail 42 interconnects the upper ends 40 of the support rails 34, 36. The recliner mechanism 24 pivotally interconnects the lower ends 38 of the support rails 34, 36 to the respective seat cushion brackets 28,30. The upper cross rail 42 includes a pair of spaced apart pivot brackets 44, 46 projecting downwardly therefrom and each having a pivot bore 48 passing therethrough.

[0009] The head restraint 26 further includes a support frame 50 comprising a cross bar 52 extending between opposing first 54 and second 56 distal ends, each pivotally coupled in the pivot bore 48 of the respective pivot brackets 44, 46. A pair of spaced apart and parallel upstanding posts 58 project upwardly from the cross bar 52 for supporting a head restraint cushion 60. The cushion 60 may be a resilient foam pad, such as urethane foam, encased by a trim cover material of cloth, vinyl or leather as conventionally known in the art. The support frame 50 further includes a control bar 62 connected to the cross bar 52 and extending downwardly and generally parallel thereto between first 64 and second 66 distal ends. The first 64 and second 66 distal ends of the control bar 62 are operatively coupled to the support rails 34, 36, respectively, for pivoting the head restraint 26 about the cross bar 52 between the normal position and the forward angled position as will be described in greater detail hereinafter.

[0010] Still referring to Figure 2, the seat assembly 10 further includes an adjustment mechanism 70 coupled between the seat back 18 and the head restraint 26 for pivoting the head restraint 26 between the normal position and the forward angled position. More specifically, the adjustment mechanism 70 includes a generally rectangular guide plate 72 slidably coupled to each of the support rails 34, 36 and moveable along the support rails 34, 36 between a first, or lower, position and a second, or upper, position. Each guide plate 72 includes a leading edge 74 facing the seat cushion brackets 28,30 and a trailing edge 76 opposing the leading edge 74. Each guideplate 72 further includes an upper edge 78 facing the head restraint 26 and a lower edge 80 opposing the upper edge 78. A guide slot 82 passes through each guide plate 72 and extends from a first end 84 adjacent the leading edge 74 and upper edge 78 to a second end 86 adjacent the trailing edge 76 and lower edge 80: The first and second ends 84, 86 of the control bar 62 are slidably received with the guide slots 82 of the respective guide plates 72 and guided between the first and second ends 84, 86 thereof.

[0011] The adjustment mechanism 70 further includes a generally U-shaped cover plate 90 fixedly secured, such as by welds or fasteners, to each of the support rails 34, 36 and defining a guide track therebetween for slidably retaining each of the respective guide plates 72 between the cover plate 90 and the respective support rail 34, 36. Each cover plate 90 includes a generally horizontal slot 92 therethrough for slidably receiving the first and second distal ends 64, 66 of the control bar 62 and for guiding the control bar 62 along the slots 82 in the guide plates 72. Each cover plate 90 further includes a pair of generally vertical slots 94 therethrough for slidably receiving fasteners 96. The fasteners 96 are fixedly connected to the guide plates 72 to retain the guide plates 72 within the guide track defined between the cover plates 90 and the respective support rails 34, 36.

[0012] The seat assembly 10 further includes an actuator 100 coupled between the seat cushion 12 and the adjustment mechanism 70 for automatically sliding the adjustment mechanism 70 between a first position pivoting the head restraint 26 to the normal position and a second position pivoting the head restraint to the forward angled position in response to pivotal movement of the seat back 18 between the upright position and the fully reclined position for continuously adjusting the position of the head restraint 26 relative to the seat occupant's head. More specifically, the actuator 100 in the preferred embodiment includes a pair of push-pull type cable assemblies 102. Each cable assembly 102 has a first end 104 fixedly secured to the lower edge 80 of the guide plate 72 and a second end 106 fixedly secured to the seat cushion bracket 28,30, respectively. The cable assemblies 102 are routed along the support rails 34,36 and recliner mechanism 24.

[0013] Finally, the seat assembly 10 further includes a spring bias member 110 connected between the seat back 18 and the adjustment mechanism 70 for continuously biasing the adjustment mechanism 70 to the second, or upper, position and the head restraint 26 to the forward angled position. That is, the spring bias member 110 includes a coiled spring extending and interconnecting between the upper edge 78 of the guide plate 72 and the respective support rail 34, 36 for biasing the guide plates 72 upwardly along the guide track toward the second position, or in the direction of the cross rail 42.

[0014] Referring to Figure 3, the adjustment mechanism 70 and actuator 110 are shown assembled to the support rail 34 and head restraint 26. The seat back 18 is shown in the fully reclined position with the head restraint 26 in the forward angled position thus minimizing the distance between the head restraint 26 and the seat occupant's head and providing supporting and protection against potential whiplash.

[0015] Referring to Figures 4-6, the operation of the continuous self-adjusting head restraint 26 will now be described. Referring specifically to Figure 4, the seat back 18 is shown in the upright position and the head restraint 26 in the normal position. The length of the cables 102 are shortened with the seat back 18 in the upright position by the curved routing of the cables 102 around the recliner mechanisms 24 and seat cushion brackets 28,30. The shortening, or pulling, on the cables 102 forces the guide plates 72 to slide downwardly along the guide track between the support rails 34,36 and the cover plates 90 to the first, or lower, position. In the first, or lower, position, the first and second distal ends 64, 66 of the control bar 62 are forced along the
guide slot 82 to the first end 84 and the head restraint 26 is pivoted about the cross bar 52 to the normal position. Further, the springs 110 are pulled in tension against the force of the cables 102. As shown in Figure 4, in the normal position, the head restraint 26 is spaced behind the upper cross rail 42 of the seat back frame 32.

[0016] Referring to Figure 5, as the seat back 18 is pivoted rearwardly, or clockwise in Figure 1, about the pivot axis A relative to the seat cushion 12, the cables 102 are lengthened due to reducing the bend or curve in the cables 102 around the recliners 24 and brackets 28, 30 producing slack in the cables 102. The springs 110 force the guide plates 72 to slide upwardly along the cover plates 90 against the force of the cables 102. As shown in Figure 6, in the normal position, the head restraint 26 is spaced behind the upper cross rail 42 of the seat back frame 32.

[0017] Referring now to Figure 6, as the seat back 18 is pivoted further rearwardly, or clockwise in Figure 1, about the pivot axis A to the fully reclined position relative to the seat cushion 12, the head restraint 26 is pivoted about the cross bar 52 rearwardly, or clockwise as shown, to move the head restraint 26 from the forward angled position to the fully reclined position. That is, the length of the cable 102 may be shortened or pulled in tension as the seat back 18 is pivoted toward the fully reclined position in order to pull downwardly on the guide plates 72 against the angle or direction of bias force of the springs 110. The angle or direction of the guide slot 82 may then be opposite, or a mirror image, to force the head restraint 26 to pivot from the normal position to the forward angled position and the seat back 18 is pivoted and the guide plates 72 slide downwardly along the cover plates 90.

[0018] As the seat back 18 is pivoted and return from the fully reclined position toward the upright position, the cables 102 are wound around the recliners 24 and brackets 28, 30 to shorten the length of the cables 102 and pull downwardly on the respective guide plates 72 against the force of the springs 110. The guide plates 72 slide downwardly along the cover plates 90 against the force of the springs 110 until the fasteners 96 reach the bottom of the vertical slots 94. The guide slots 82 again force the distal ends 64, 66 of the control bar 62 to slide and travel along the slots 82 from the second end 86 toward the first end 84. The angled guide slots 82 in turn force the head restraint 26 to pivot about the cross bar 52 rearwardly, or clockwise as shown, to move the head restraint 26 from the forward angled position to the normal position.

[0019] Therefore, the head restraint 26 is automatically and continuously adjusted and pivoted relative to the seat back 18 in response to pivotal movement of the seat back between the upright position and the fully reclined position. It should be appreciated that the arrangement of the springs 110, cables 102 and guide slots 82 may be reverse such that the springs 110 bias the guide plates 72 to the upper position and the cables 102 pull the guide plates 72 downwardly upon pivoting the seat back 18 from the upright position to the fully reclined position. That is, the length of the cable 102 may be shortened or pulled in tension as the seat back 18 is pivoted to the fully reclined position in order to pull downwardly on the guide plates 72 against the bias force of the springs 110. The angle or direction of the guide slot 82 may then be opposite, or a mirror image, to force the head restraint 26 to pivot from the normal position to the forward angled position and the seat back 18 is pivoted and the guide plates 72 slide downwardly along the cover plates 90.

[0020] The invention has been described in an illustrative manner, and it is to be understood that the terminology, which has been used, is intended to be in the nature of words of description rather than of limitation.

Claims

1. A seat assembly (10) for use in an automotive vehicle comprising:
   a generally horizontal seat cushion (12) for supporting a seat occupant on said seat assembly (10);
   a seat back (18) pivotally coupled to said seat cushion (12) for pivotal movement between a generally upright position and a fully reclined position relative to said seat cushion (12);
   a head restraint (26) pivotally coupled to said seat back (18) for pivotal movement between a normal position when said seat back (18) is in said upright position and a forward angled position relative to said seat back (18) when said seat back (18) is in said fully reclined position to support the seat occupant’s head;
   an adjustment mechanism (70) for pivoting said
head restraint (26) between said normal position and said forward angled position; and

an actuator (100);

characterized in that said adjustment mechanism (70) is slidably coupled between said seat back and said head restraint (26) and said actuator (100) is coupled between said seat cushion (12) and said adjustment mechanism (70) for automatically sliding said head restraint (26) to said normal position and a second position pivoting said head restraint (26) to said forward angled position in response to pivotal movement of said seat back (18) between said upright position and said fully reclined position for continuously adjusting the position of said head restraint (26) relative to the seat occupant’s head; and

said seat assembly (10) further comprising:

a spring bias member (110) connected between said seat back (118) and said adjustment mechanism (70) for continuously biasing said adjustment mechanism (70) to said second position and said head restraint (26) to said forward angled position;

said head restraint (26) including a support frame (50) comprising a cross bar (52) extending between opposing first and second distal ends (54, 56) pivotally connected to said seat back (18), at least one upstanding post extending upwardly from said cross bar (52) for supporting a head restraint cushion (60), an a control bar (62) extending between opposing first and second distal ends (64, 66) operatively connected to said adjustment mechanism (70) for pivoting said head restraint (26) about said cross bar (52) between said normal position and said forward angled position.

2. A seat assembly as set forth in claim 1 wherein said seat back (18) includes a seat back frame (32) comprising a pair of spaced apart and generally parallel upright support rails (34, 36), each extending from a lower end (38) to an upper end (40), and an upper cross rail (42) interconnecting said upper ends (40) of said support rails (34, 36).

3. A seat assembly as set forth in claim 2 wherein said adjustment mechanism (70) includes a guide plate (72) slidably coupled to each of said support rails (34, 36) and movable along said support rails between said first and second positions.

4. A seat assembly as set forth in, claim 3 wherein said guide plates (72) each comprise a generally rectang-ular plate having a leading edge (74) facing said seat cushion (12), a trailing edge (76) opposing said leading edge (74), an upper edge (78) facing said head restraint (26) and a lower edge (80) opposing said upper edge (78).

5. A seat assembly as set forth in claim 1 wherein said guide plates (72) each include a guide slot (82) extending from a first end (84) adjacent said leading edge (74) and said upper edge (78) and a second end (86) adjacent said trailing edge (76) and said lower edge (80) for slidably receiving and guiding said respective distal ends (64, 66) of said control bar (62) therebetween.

6. A seat assembly as set forth in claim 5 wherein said adjustment mechanism (70) includes a cover plate (90) fixedly secured to each of said support rails (34, 36) defining a guide track therebetween for slidably retaining each of said guide plates (72) between said respective support rail (34, 36) and cover plate (90).

7. A seat assembly as set forth in claim 6 wherein said spring bias member (110) includes a coiled spring extending between each of said guide plates (72) and said respective support rail (34, 36), for biasing said guide plates (72) toward said second position and said head restraint (26) toward said forward angled position.

8. A seat assembly as set forth in claim 7 wherein said actuator (100) includes a cable extending from each of said guide plates (72) to said seat cushion (12) for sliding said guide plates (72) along said guide track from said first position to said second position in response to said seat back (18) pivoting from said upright position to said fully reclined position to automatically pivot said head restraint (26) from said normal position to said forward angled position.

Patentansprüche

1. Sitzanordnung (10) zur Verwendung in einem Kraftfahrzeug, mit:

   einem im wesentlichen horizontalen Sitzpolster (12) zur Unterstützung eines Insassen auf der Sitzanordnung (10);

   einer Sitzlehne (18), die schwenk- bzw. drehbar mit dem Sitzpolster (12) verbunden ist, um eine Schwenkbewegung zwischen einer im wesentlichen aufrechten Position und einer vollständig zurückgelegten Position relativ zu dem Sitzpolster (12) durchzuführen;
einer Kopfstütze (26), die schwenk- bzw. drehbar mit der Sitzlehne (18) verbunden ist, um eine Schwenkbewegung zwischen einer normalen Position, wenn sich die Sitzlehne (18) in der aufrechten Position befindet, und einer nach vorne geneigten Position relativ zu der Sitzlehne (18), wenn sich die Sitzlehne (18) in der vollständig zurückgelegten Position befindet, durchzuführen, um den Kopf des Insassen zu unterstützen;

einem Einstellmechanismus (70) zum Schwenken der Kopfstütze (26) zwischen der normalen Position und der nach vorne geneigten Position; und

einem Betätigungselement (100);

dadurch gekennzeichnet, daß der Einstellmechanismus (70) verschiebbar zwischen der Sitzlehne und der Kopfstütze (26) angebracht ist und das Betätigungselement (100) zwischen dem Sitzpolster (12) und dem Einstellmechanismus (70) angebracht ist, um den Einstellmechanismus (70) zwischen einer ersten Position, die die Kopfstütze (26) in die Normalposition dreht, und einer zweiten Position, die die Kopfstütze (26) in die vorwärts ge-neigte Position dreht, als Reaktion auf die Drehbewegung der Sitzlehne (18) zwischen der aufrechten Position und der vollständig zurückgelegten Position, für eine kontinuierliche Verstellung der Position der Kopfstütze (26) gegenüber dem Kopf des Insassen automatisch zu verschieben; und die Sitzanordnung (10) des weiteren folgendes umfaßt:

- ein Federvorspannelement (110), das zwischen der Sitzlehne (18) und dem Einstellmechanismus (70) für eine kontinuierliche Vorspannung des Einstellmechanismus (70) in die zweite Position und der Kopfstütze (26) in die vorwärts geneigte Position angebracht ist;

wobei die Kopfstütze (26) einen Stützrahmen (50) aufweist, der eine Querstange (52), die sich zwischen schwenkbar mit der Sitzlehne (18) verbunden, gegenüberliegenden ersten und zweiten distalen Enden (54, 56) erstreckt, mindestens eine nach oben stehende Stütze, die sich nach oben von der Querstange (52) erstreckt, um ein Kopfstützenpolster (60) zu halten, und eine Steuerstange (62) umfaßt, die sich zwischen gegenüberliegenden ersten und zweiten distalen Enden (64, 66) erstreckt und mit dem Einstellmechanismus (70) in Wirkverbindung steht, um die Kopfstütze (26) zwischen der normalen Position und der vorwärts geneigten Position um die Querstange (52) zu schwenken.

2. Sitzanordnung nach Anspruch 1, wobei die Sitzlehne (18) einen Sitzlehnenrahmen (32) aufweist, der ein Paar voneinander beabstandete und im wesentlichen parallele, aufrechte Stützschienen (34, 36), die sich jeweils von einem unteren Ende (38) zu einem oberen Ende (40) erstrecken, und eine obere Querstange (42) umfaßt, die das obere Ende (40) mit den Stützschienen (34, 36) verbindet.

3. Sitzanordnung nach Anspruch 2, wobei der Einstellmechanismus (70) eine Führungsplatte (72) aufweist, die verschiebbar mit jeder der Stützschienen (34, 36) verbunden ist und entlang der Stützschienen zwischen der ersten und zweiten Position beweglich ist.

4. Sitzanordnung nach Anspruch 3, wobei die Führungsplatten (72) jeweils eine im wesentlichen rechtwinklige Platte umfassen, die eine dem Sitzpolster (12) zugewandte Vorderkante (74), eine der Vorderkante (74) gegenüberliegende Hinterkante (76), eine der Kopfstütze (26) zugewandte Oberkante (78) und eine der Oberkante (78) gegenüberliegende Unterkante (80) aufweist.

5. Sitzanordnung nach Anspruch 4, wobei die Führungsplatten (72) jeweils einen Führungsschlitz (82) aufweisen, der sich von einem ersten Ende (84) nahe der Vorderkante (74) und der Oberkante (78) und einem zweiten Ende (86) nahe der Hinterkante (76) und der Unterkante (80) erstreckt, um die jeweiligen distalen Enden (64, 66) der Steuerstange (62) dazwischen verschobbar zu halten und zu führen.

6. Sitzanordnung nach Anspruch 5, wobei der Einstellmechanismus (70) eine Deckplatte (90) aufweist, die fest an der jeweiligen Stützschiene (34, 36) befestigt ist und eine dazwischen verlaufende Führungsspur definiert, um jede der Führungsplatten (72) zwischen der jeweiligen Stützschiene (34, 36) und der Deckplatte (90) verschiebbar zu halten.

7. Sitzanordnung nach Anspruch 6, wobei das Federvorspannelement (110) eine Spiralfeder aufweist, die sich zwischen jeder Führungsplatte (72) und der jeweiligen Stützschiene- (34, 36) erstreckt, um die Führungsplatten (72) in Richtung der zweiten Position und die Kopfstütze (26) in Richtung der vorwärts geneigten Position vorzuspannen.

8. Sitzanordnung nach Anspruch 7, wobei das Betätigungselement (100) ein Kabel aufweist, das sich von jeder der Führungsplatten (72) zu dem Sitzpolster (12) erstreckt, um die Führungsplatten (72) entlang der Führungsspur aus der ersten Position in die zweite Position zu verschieben, als Reaktion darauf, daß die Sitzlehne (18) von der aufrechten
Position in die vollständig zurückgelegte Position schwenkt, wodurch automatisch die Kopfstütze (26) von der normalen Position in die vorwärts ge-neigte Position geschwenkt wird.

Revendications

1. Ensemble formant siège (10) destiné à être utilisé dans un véhicule automobile, comprenant :
   un coussin de siège (12) généralement horizontal pour supporter un occupant du siège sur ledit ensemble formant siège (10) ;
   un dossier de siège (18) couplé en pivotement audit coussin de siège (12) pour un mouvement de pivotement entre une position généralement redressée et une position totalement inclinée par rapport audit coussin de siège (12) ;
   un appui-tête (26) couplé en pivotement audit dossier de siège (18) pour un mouvement de pivotement entre une position normale lorsqu’ledit dossier de siège (18) est dans ladite position redressée et une position en angle vers l’avant par rapport audit dossier de siège (18) lorsque ledit dossier de siège (18) est dans ladite position totalement inclinée afin de supporter la tête de l’occupant du siège ;
   un mécanisme d’ajustement (70) pour faire pivoter ledit appui-tête (26) entre ladite position normale et ladite position en angle vers l’avant ;
   un actionneur (100) ;

2. Ensemble formant siège selon la revendication 1, dans lequel ledit dossier de siège (18) inclut un cadre de support (50) comprenant une traverse (52) qui s’étend entre une première et une seconde extrémité distales opposées (54, 56) connectées en pivotement audit dossier de siège (18), au moins un poteau redressé s’étendant vers le haut depuis ladite traverse (52) pour supporter un coussin d’appui-tête (60), et une barre de commande (62) s’étendant entre une première et une seconde extrémité distales opposées (64, 66) fonctionnellement connectée audit mécanisme d’ajustement (70) pour faire pivoter ledit appui-tête (26) autour de ladite traverse (52) entre ladite position normale et ladite position en angle vers l’avant.

3. Ensemble formant siège selon la revendication 2, dans lequel ledit mécanisme d’ajustement (70) inclut une plaque de guidage (72) couplée en coulissement à chacun desdits rails de support (34, 36) et mobile le long desdits rails de support entre ladite première position et ladite seconde position.

4. Ensemble formant siège selon la revendication 3, dans lequel lesdites plaques de guidage (72) comprennent chacune une plaque généralement rectangulaire ayant un bord d’attaque (74) qui fait face vers ledit coussin de siège (12), un bord de queue (76) à l’opposé dudit bord d’attaque (74), un bord supérieur (78) qui fait face vers ledit appui-tête (26), et un bord inférieur (80) à l’opposé dudit bord supérieur (78).

5. Ensemble formant siège selon la revendication 4, dans lequel lesdites plaques de guidage (72) incluent chacune une fente de guidage (82) qui s’étend depuis une première extrémité (84) adjacente audit bord d’attaque (74) et audit bord supérieur (78) jusqu’à une seconde extrémité (86) adjacente audit bord de queue (76) et audit bord inférieur (80) pour recevoir en coulissement et pour guider lesdites extrémités distales respectives (64, 66).
de ladite barre de commande (62) entre elles.

6. Ensemble formant siège selon la revendication 5, dans lequel le mécanisme d’ajustement (70) inclut une plaque de couverture (90) attachée de manière fixe à chacun des dits rails de support (34, 36) en définissant une voie de guidage entre ceux-ci, pour retenir en coulissement chacune des dites plaques de guidage (72) entre le dito rail de support respectif (34, 36) et la plaque de couverture (90).

7. Ensemble formant siège selon la revendication 6, dans lequel l’élément de sollicitation à ressort (110) inclut un ressort à boudin s’étendant entre chacune des dites plaques de guidage (72) et le dito rail de support respectif (34, 36) pour solliciter les dites plaques de guidage (72) vers la dite seconde position et le dito appui-tête (26) vers la dite position en angle vers l’avant.

8. Ensemble formant siège selon la revendication 7, dans lequel le dito actionneur (100) inclut un câble s’étendant depuis chacune des dites plaques de guidage (72) vers le dito coussin de siège (12) pour faire coulissier les dites plaques de guidage (72) le long de ladite voie de guidage depuis la dite première position vers la dite seconde position en réponse au pivotement du dito dossier de siège (18) depuis la dite position redressée vers la dite position totalement inclinée pour faire automatiquement pivoter le dito appui-tête (26) depuis la dite position normale vers la dite position en angle vers l’avant.