The invention relates to a convertible stretcher and chair for use in hospitals, this for convenience and brevity being sometimes referred to as a convertible hospital chair. A convertible stretcher and chair embodying the invention has its parts relatively movable so that in one position they constitute a stretcher at a level approximating that of a hospital bed and so that in another position they constitute a chair for the convenient and comfortable use of a patient.

With the parts in the stretcher position a paraplegic or other patient can be readily transferred from the bed to the stretcher without any carrying or lifting of the patient. Then the parts are moved to the chair position, the patient being thus moved to a sitting position without any effort by the patient and with only a small effort by the attendant. When the patient is to be returned to bed the described procedure is reversed.

The general object of the invention is to provide a convertible stretcher and chair of the type described having various advantageous features of construction and arrangement. These features facilitate conversion from the stretcher position to the chair position and vice versa, they serve to firmly support the parts in each of the said positions, and they provide simplicity and economy of manufacture. Various other advantages will be apparent from the following more specific description.

In the drawings I have shown in detail a preferred embodiment of the invention, but it will be understood that various changes may be made from the construction shown, and that the drawings are not to be construed as defining or limiting the scope of the invention, the claims forming a part of this specification being relied upon for that purpose.

Of the drawings:

Fig. 1 is an isometric view of a convertible chair embodying the invention, the parts being in the position to constitute a chair.

Fig. 2 is an isometric view similar to Fig. 1 but with the parts in the position to constitute a stretcher.

Fig. 3 is a fragmentary vertical sectional view taken along the line 3—3 of Fig. 1.

Fig. 4 is a fragmentary vertical sectional view taken along the line 4—4 of Fig. 2.

Fig. 5 is an enlarged fragmentary longitudinal vertical sectional view through the center, this view showing the parts in the same position as in Fig. 2.

Fig. 6 is a view similar to Fig. 5 but showing the parts in the same position as in Fig. 1.

Fig. 7 is a fragmentary view similar to the left portion of Fig. 6 but showing one of leg supports in an elevated position.

Fig. 8 is a fragmentary plan view of some of the parts shown in Fig. 3, certain cover parts being omitted for clarity of illustration.

Fig. 9 is an enlarged fragmentary plan view similar to a portion of Fig. 8 and with certain parts in horizontal section.

Fig. 10 is an enlarged fragmentary view partly in section along the line 10—10 of Fig. 8.

Fig. 11 is a fragmentary elevational view taken in the direction of the arrows 11, 11 in Fig. 10.

Fig. 12 is a fragmentary left side view showing one of the foot rests and the supporting means therefor.

Fig. 13 is a view similar to Fig. 12 but showing some of the parts in different positions. Referring to the drawings and more particularly Figs. 1 and 2, the main supporting frame of the convertible chair is indicated generally by 10. This frame preferably comprises suitably connected pipes or tubes and may be varied widely as to details. The several tubes may be connected with each other in any suitable manner, but for convenience of illustration and description it will be assumed that they are connected by welding except as otherwise stated. As shown, the frame 10 includes a generally horizontal structure at its bottom, this horizontal structure comprising longitudinal lower side members 12, 12 and a transverse lower front member 14 between the two side members. The members 12, 12 and 14 may be formed from a single tube properly bent. A transverse member 16 is secured to the members 12, 12 and is spaced rearwardly from the front member 14. A second transverse member 18 is secured to the side members 12, 12 and is spaced rearwardly from the transverse member 16. Connected with the side members 12, 12 adjacent the transverse member 16 are stub axles 20 for two main supporting wheels 22, 22. The rear portions of the longitudinal members 12, 12 are curved downwardly. Connected with the longitudinal members 12, 12 are oppositely disposed upright members 26, 26 preferably directly above the transverse member 16. Also connected with the longitudinal members 12, 12 are oppositely disposed upright members 28, 28 spaced rearwardly from the members 26, 26 and preferably directly above the transverse member 18. Generally horizontal upper side members 30, 30 are provided, these being connected with the upper ends of the upright members 26, 26 and 28, 28 and extending.
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rearwardly from the said members 28, 28. The said longitudinal side members 30, 30 preferably have upwardly offset portions 52, 52 which are connected at the rear by a transverse member 34. Another transverse member 36 is preferably also provided, this being spaced forwardly from the member 34. The members 28, 28, the members 30, 30 and the member 34 may be formed from a single tube properly bent.
The rear portions of the lower and upper members 12 and 20 at each side are connected with each other by a curved member 38 having a reinforcing connection 40 with the corresponding upright member 28. The curved members 38 at the two sides are connected with each other by a transverse member 42. Connected with the rear portions of the members 12, 12 and the lower portions of the members 30, 30 are caster wheels 44, 44 swiveled for movement about vertical axis. These caster wheels cooperate with the main wheels 22, 22 for supporting the entire convertible chair.

Extending between the two upright members 26 is a transverse member 45. Extending between the two upright members 26 is a transverse member 46 at the same level as the members 44. Extending between the upright members 26 and 28 at each side are horizontal longitudinal members 48 and 50, the lower member 48 at each side being at the same level as the transverse members 45 and 46. The members 48 and 50 are connected with each other and with the upper side member 30 by upright members 52 and 54.

Referring more particularly to Figs. 5, 6 and 8, a vertically movable seat unit 55 is provided, this including a rectangular frame which comprises side members 56, 56 and rear and front transverse members 58 and 60. The side members 56, 56 are so spaced that they are movable vertically between the upright members 26, 26 and 28, 28 and the side members 30, 30. The transverse member 58 is preferably spaced slightly forwardly from the upright members 26, 26, and the transverse member 60 is preferably spaced slightly rearwardly from the upright members 28, 28. The said members 56, 56, 58 and 60 may be formed from a single tube properly bent. Connected with the rectangular seat frame is a metal plate 62 which is preferably tangent with to the frame members at the bottoms thereof.
The seat unit 55 is guided for movement with respect to the frame along substantially vertical lines either to a lower position as shown in Figs. 1 and 6 or to an upper position as shown in Figs. 2 and 5. The means for guiding the seat unit may be varied, but the said means as shown includes vertical guide rods 68, 68 and vertical guide rods 76, 76 for the said rods. A rectangular casing 64 is connected with the main frame members 45, 45 and 48, 48 and a horizontal plate 65 is connected with the main frame members 16, 16 and 12, 12. Connected with the seat plate 62 and extending downwardly therefrom are the said vertical guide rods 68, 68. The casing 64 and the plate 66 have holes through which the rods can extend. There are preferably four guide rods respectively adjacent the corners of the plate 62. Extending between the casing 64 and the plate 66 and secured to at least one of them are the said vertical guides 76, 76 which are preferably built into or through which the guide rods 68, 68 extend. The tubes closely fit the rod so that the seat unit is guided for straight-line vertical movement.

Means is provided for moving the seat unit 55 downwardly to its lower position or upwardly to its upper position, this means acting directly on the seat unit independently of any other parts. This means includes a substantially vertical screw 72 below the seat unit and connected therewith and also includes a nut 74 having threaded engagement with the screw and held against vertical movement with respect to the supporting frame. The screw 72 is preferably secured to the plate 62 and is rigidly connected at its upper end with the plate 52, the said screw being adapted to extend through an opening in the casing 56 and through a hole in the plate 56. Surrounding and having threaded engagement with the screw 72 is a sleeve which constitutes the said nut 74. The sleeve 74 is rotatable in a downwardly extending bearing portion of the casing 64, and it is supported by an anti-friction bearing 76 interposed between the bottom of the sleeve and the plate 56. Secured to the sleeve 74 and located within a gear chamber in the casing 64 is a bevel gear 78 which meshes with a bevel gear 80 also located within the said gear chamber. The gear 78 is secured to a horizontal rearwardly extending shaft 82 rotatable in bearing apertures in the casing 64. The gear chamber in the casing 56 may be closed at the top by a cover plate 84. Preferably a depending cup 86 is connected to the plate 66, the cup being of such depth as to provide room for the screw 72 to move to its lowermost position. The cup 86 serves to protect the screw and to prevent the dropping of any dirt.

Connected with the shaft 82 and longitudinally adjustable thereon is a sleeve 88 having a crank 90 at its rear end. The sleeve 88 and the crank 90 can be in their forward positions when not in use and can be moved rearwardly for use, the crank then being more conveniently accessible. Rotation of the crank serves to rotate the bevel gears 80 and 78 and the sleeve or nut 74. By reason of the rotation of the nut, the screw 72 is raised or lowered to raise or lower the seat unit 55. Fig. 5 shows the seat unit in its upper position and Fig. 6 shows the said unit in its lower position.

A unit indicated generally at 92 is provided for supporting the back of the patient, this unit being pivotally connected to the seat unit 55 near the rear thereof for relative movement along a transverse horizontal axis. The back unit comprises two side members 94, 94 and a rear member 96, all of which may be formed from a single tube properly bent. The details of the pivot connection between the seat unit and the back unit may be varied, but as shown in Fig. 3 a tube 98 is welded to the rear member 98 of the seat unit. Connected respectively with the side members 94, 94 of the back unit are two tubes 100, 100 which align with the tube 56. A pin or rod 102 extends through the three tubes 98, 100, 100 and serves as a pivot support for the back unit. It will be observed that the main portions of the members 94, 94 of the back unit are substantially in longitudinal register with the side members 56, 56 of the seat unit.

A stationary support for the back unit is carried by the supporting frame, this support being in engagement with the back unit at the bottom thereof and at the rear of its pivotal connection with the seat unit. This stationary support is positioned to easily fit the rod so that the seat unit is moved downwardly to its lower position,
the said support permitting the back unit to move pivotally in the downward direction back to its horizontal position when the seat unit is moved upwardly back to its upper position.

Preferably the said stationary support comprises at least one generally horizontal and longitudinally extending track or track member. As shown, there are two transversely spaced track members 104 secured respectively to the side members 30, 39 of the main frame and at the inner sides thereof. Each track member 104 may be channel shaped in cross section as shown in Fig. 4, and it may be closed at the rear by a member 108 as shown in Fig. 1. The back units includes at least one roller 108 engageable with the upper face of a corresponding track member, and preferably there are two rollers 108 spaced for engagement with the two track members 104. The rollers 108 are secured to the side members 34, 35 of the back unit as shown in Fig. 4, and they enable the track members to support the said back unit. When the seat unit 55 is in its uppermost position, as shown by full lines in Figs. 2 and 5, the track members 104 support the back unit in a horizontal position as shown. In this position the back unit may be additionally supported by the rear member 34 of the main frame, the side members 34, 35 of the back unit being in direct engagement with the said rear frame member. The member or support 34 is spaced rearwardly from the track members 104 and it constitutes a second support for the back unit.

When the crank 80 is turned to rotate the nut 74, the seat unit 55 is lowered from the position shown in Fig. 5 to the position shown in Fig. 6. As the seat unit is moved downwardly the rollers 108 move along the track members 104 and the back unit 52 is forced to move pivotally in the upward direction to an inclined position as shown in Figs. 1 and 6, the angle of inclination preferably being about 60° from the horizontal. Preferably the track members 104 have downward offsets or depressions near their forward ends at 110 into which the rollers 108 move when the seat unit reaches its lowermost position and when the back unit has been moved pivotally to the maximum extent. These depressions assist in holding the back unit in its inclined position. When the seat unit 55 is moved upwardly from its lower position to its upper position, the described movements are reversed and the back unit 52 is restored to its horizontal position.

A structure indicated generally at 112, 114 is provided for supporting the legs of the patient, this structure being pivotally connected with the seat unit 55 near the front thereof for relative movement about a transverse horizontal axis. Preferably the leg structure comprises two separate units 112 and 114 adapted respectively for supporting the right and left legs of the patient. When there are two units, they are pivotally movable about the same axis.

The right leg unit comprises spaced longitudinal members 116 and 118 and a transverse lever member, not shown. Similarly, the left leg unit comprises spaced longitudinal members 120 and 122 and a transverse member 124, shown in Figs. 12 and 13. It will be observed that the main portions of the outer longitudinal members 116 and 120 of the leg units are respectively in longitudinal register with the side members 56, 59 of the seat unit.

The details of the pivotal connections between the seat unit and the leg units may be widely varied, but as shown in Fig. 8 two tubes 125 and 128 are welded to the front member 58 of the seat unit. Connected respectively with the members 116 and 118 of the right leg unit are two tubes 130 and 132 which are at opposite ends of the tube 125 and in alignment therewith. Connected respectively with the members 120 and 122 of the left leg unit are two tubes 134 and 136 which are at opposite ends of the tube 128 and in alignment therewith. A pivot rod 138 extends through all of the tubes 125, 130, 132, 128, 134 and 136 and serves as a pivotal support for both leg units.

Also pivotally connected with the front of the seat unit 55 is a supporting lever for the leg structure or units, this lever preferably being movable about the same axis about which the leg structure or units move. The said supporting lever has at least one longitudinal member 140 which extends forwardly and rearwardly from the pivotal axis to provide a forwardly extending arm and a rearwardly extending arm. Preferably there are two similar members 140 at opposite sides of the seat unit and of the leg structure.

Portions of the forwardly extending arms extend under the leg structure to support it, and preferably the said portions are in the form of a down wardly offset transverse member 142 which may be integral with the said arms as shown.

The pivot rod 138 is extended at its ends to pivotally support the lever members 140, 140. The rod 138 thus serves as a common pivot rod for the leg units and for the lever members. As shown in Fig. 8, a ball bearing 144 may be interposed between the rod 138 and each lever member 140. Nuts 146, 148 on the pivot rod hold the lever members 140, 140 in place. As shown, a washer 148 is provided for each nut, the washer engaging a shoulder on the rod. The washers and shoulders serve to maintain proper spacing so that the several parts may freely move on the rod 138.

A means is provided on the supporting frame for engaging the rearwardly extending arm of each member 140 to cause the forward arm thereof to swing downwardly about its pivotal axis as the seat unit is moved downwardly and to swing upwardly about its said pivotal axis as the seat unit is moved upwardly. Preferably each rearwardly extending arm is provided with a longitudinal slot 143 and the engaging means on the frame is a fixed pin 152 which extends through the slot. Each pin 152 is carried by a block 154 at the juncture of the main frame members 52, 54. As shown in Fig. 10, spacing washers 156 and 158 are provided at the side of the member 140, being held in place by a nut 160. The rear slotted portion of each member 140 may be covered by a guard 162, the guard having a slot 164 therein similar to the slot 150.

When the seat unit 55 is in its uppermost position as shown in Figs. 2 and 5, the pivoted supporting levers with their transverse member 142 support the leg units 112 and 114 in horizontal positions as shown. The forwardly extending and rearwardly extending arms of each side member 140 are at an angle to each other as shown, the angle being so related to the positions of the pins 150 and 152, 150 that the leg members are properly engaged in horizontal positions when the seat unit is in its upper position.

When the seat unit 55 is lowered, as previously described, from its said upper position as shown.
in Figs. 2 and 5 to its lower position as shown in Figs. 1 and 6, the lever or levers for supporting the leg units are swung in the counterclockwise direction under the control of the pins 158 and 162. The slots 150 in the rearwardly extending arms 146 are of sufficient relationship to permit the required movement of the lever members 146 with respect to the pins 152. As the supporting lever or levers are moved, the forward transverse member 142 moves downwardly and the leg units are permitted to correspondingly move downwardly by gravity. The relationship of the parts is such that the leg units move downwardly to the extent ordinarily required for a sitting position of the patient. When the seat unit is moved reversely from its lower position to its upper position, the lever or levers for supporting the leg units are correspondingly moved reversely and the leg units are restored to their described horizontal positions.

Horizontally pivoted to the respective leg units 112 and 114 are foot units 166 and 168. Preferably the foot units in their entirety are longitudinally adjustably manually with respect to the leg units in accordance with the leg length of the patient.

Referring particularly to Figs. 12 and 13, each foot unit includes a frame casting 170 having a bar 172 which is detachable at the bottom of the outermost side member such as 120 of the corresponding leg unit. Two yokes 174 and 176 surround the member 120 and serve as guides for the bar 172 which is movable longitudinally therein. The front or lower yoke 176 has a screw 178 which is engageable with the serrated lower face of the bar 172 to hold it in adjusted position.

A foot rest 180 is transversely pivoted to the frame 170 at 182. Pivotted to the foot rest at 184 is a sector 186 having teeth which are engageable with a pin 188 on the frame 170. A pin or handle 190 is provided on the sectors 186 for moving it to disengage it from the pin 188. Preferably a guide strip 192 is provided to limit pivotal movement of the sector. Each foot rest may be moved manually from the position shown in Fig. 12 or to an intermediate position, the teeth of the sector moving by gravity into engagement with the member 182. When the leg rest is to be reversely moved, the sector is relatively moved by the handle 190 to disengage the teeth from the pin.

From the foregoing description it will be apparent that each foot unit may be adjusted longitudinally in accordance with the leg length of the patient, and may also be moved pivotally to the straight position shown in Fig. 13, or to the perpendicular position shown in Fig. 12 or to an intermediate position.

It is sometimes necessary or desirable to move one or the other or even both of the leg units 112 and 114 to a horizontal position or to an intermediate position after the parts have been moved to the chair position as shown in Figs. 1 and 5. For this purpose each leg unit has secured to it a toothing sector 194 which is pivoted at 195 to the outermost side member, such as 116, of the corresponding leg unit. The sector has teeth which are engageable with the transverse member 142 of the leg unit supporting frame. A pin or handle 196 is provided on the sector to engage it from the member 142. Preferably a guard strip 200 is provided to limit pivotal movement of the sector. Each leg rest may be moved manually from the position shown in Fig. 6 to the position shown in Fig. 7 or to an intermediate position, the teeth of the sector moving by gravity into engagement with the member 142.

When the leg rest is to be reversely moved, the sector is relatively moved by the handle 190 to disengage the teeth from the member 142.

The seat unit may be moved to a position 202 formed of a suitable material such as foam rubber, this being supported on the plate 204 and located between the side, rear and front members of the unit frame. A fabric cover may be provided for the cushion as shown. The back unit also comprises a fabric cover secured to the side and rear members of the said unit. The leg units and foot units also comprise suitable fabric covers.

When the seat is lowered, the frame members 30, 30 constitute arm rests. Preferably, as shown in Fig. 3, sheet metal guard plates 204 are secured to the inside sides of the members 30, 30 to close the spaces at the sides of the seat unit when the latter is in its lower position. As shown, each plate 204 has a flange 206 at the top of the corresponding member 30. Holes 208, 208 may be provided in each flange 206 and in the corresponding member 30 for receiving supporting lugs on a removable tray (not shown).

The wheels 22, 22 may be provided with conventional rims 210, 210 for manual engagement by which the parts are in the chair relationship. By means of these rims the patient can move the chair in the usual manner. Preferably a hand operable brake 212 is also provided. This does not constitute a part of the present invention and it may be of any usual or preferred structure as desirable.

The invention claimed is:

1. In a convertible hospital chair, the combination of a supporting frame, a seat unit mounted on the frame and guided for movement along substantially vertical lines to a lower position or to an upper position, a back unit horizontally and transversely pivoted to the seat unit near the rear thereof, a leg structure horizontally and transversely pivoted to the seat unit near the front thereof, the said back unit and leg structure being in horizontal positions when the seat is in its said upper position connected with the supporting frame and directly engaging the seat unit independently of the back unit and of the leg structure for relatively moving the seat unit downwardly to its lower position or upwardly to its upper position, means dependent upon downward movement of the seat unit to its said lower position for pivotally moving the back unit to an upwardly inclined position, which means upon upward movement of the seat unit back to its said upper position also serves to cause the back unit to pivotally move back to its said horizontal position, and means dependent upon downward movement of the seat unit to its said lower position for causing the leg structure to pivotally move to a downwardly inclined position which means upon upward movement of the seat unit back to its said upper position also serves to pivotally move the leg structure back to its said horizontal position.

2. A convertible hospital chair as set forth in claim 1, wherein vertical rods are rigidly connected to the upper ends to the seat unit, and wherein vertical guides are provided on the supporting frame which respectively fit the said rods to guide the seat unit for vertical downward movement or vertical upward movement.

3. In a convertible hospital chair, the combination of a supporting frame, a seat unit mounted
on the frame and guided for movement along substantially vertical lines to a lower position or to an upper position, a back unit horizontally and transversely pivoted to the seat unit near the front thereof, the said back unit and leg structure being located in horizontal positions when the seat unit is in its said upper position, means for moving the seat unit downwardly to its lower position or upwardly to its upper position, which means includes a substantially vertical screw below the seat unit and connected therewith and also includes a nut having threaded engagement with the screw and held against vertical movement on the supporting frame, means dependent upon downward movement of the seat unit to its said lower position for pivotally moving the back unit to an upwardly inclined position which means upon upward movement of the seat unit back to its said upper position also serves to cause the back unit to pivotally move back to its said horizontal position, and means dependent upon downward movement of the seat unit to its said lower position for causing the leg structure to pivotally move to a downwardly inclined position, which means upon upward movement of the seat unit back to its said upper position also serves to pivotally move the leg structure back to its said horizontal position.

5. A convertible hospital chair as set forth in claim 4, wherein a bevel gear is connected with the nut, wherein a bevel pinion on the frame meshes with the bevel gear, and wherein a manually operable crank is connected to the bevel pinion for rotating it.

6. In a convertible hospital chair, the combination of a supporting frame, a seat unit mounted on the frame and guided for movement to a lower position or to an upper position, a back unit horizontally and transversely pivoted to the seat unit near the front thereof, a leg structure horizontally and transversely pivoted to the seat unit near the front thereof, the said back unit and leg structure being located in horizontal positions when the seat unit is in its said upper position, means connected with the supporting frame and directly engaging the seat unit for relatively moving the seat unit downwardly to its lower position or upwardly to its upper position, means dependent upon downward movement of the seat unit to its said lower position for pivotally moving the back unit to an upwardly inclined position, and means dependent upon upward movement of the seat unit back to its said upper position also serves to cause the back unit to pivotally move back to its said horizontal position, a lever pivoted to the seat unit for movement about a transverse axis near the front thereof, which lever has a rearwardly extending arm and also has a forwardly extending arm with a portion thereof extending under the leg structure to support it, and means on the supporting frame for engaging the rearwardly extending arm of the lever to cause the forwardly extending arm thereof to pivotally swing downwardly about its pivotal axis as the seat unit is moved downwardly and to swing upwardly about its said pivotal axis as the seat unit is moved upwardly, the said forwardly extending arm of the lever causing the leg structure to pivotally move downwardly from its horizontal position as the seat unit is moved downwardly to its lower position and to move pivotally upwardly back to its horizontal position as the seat unit is moved upwardly back to its upper position.

7. A convertible hospital chair as set forth in claim 6, wherein the stationary support is a generally horizontal longitudinal track, and wherein the back unit includes at least one roller engageable with and movable along the track.

8. A convertible hospital chair as set forth in claim 7, wherein the track has a depression therein near the front thereof for receiving the roller when the seat unit is in its lower position and when the back unit has been moved pivotally to the maximum extent.

9. A convertible hospital chair as set forth in claim 6, wherein there is a second stationary support on the frame at the rear of the first said support and positioned to engage the back unit when it is in its horizontal position.

10. In a convertible hospital chair, the combination of a supporting frame, a seat unit mounted on the frame and guided for movement to a lower position or to an upper position, a back unit horizontally and transversely pivoted to the seat unit near the front thereof, a leg structure horizontally and transversely pivoted to the seat unit near the front thereof, the said back unit and leg structure being located in horizontal positions when the seat unit is in its said upper position, means connected with the supporting frame and directly engaging the seat unit for relatively moving the seat unit downwardly to its lower position or upwardly to its upper position, means dependent upon downward movement of the seat unit to its said lower position for pivotally moving the back unit to an upwardly inclined position, and means dependent upon upward movement of the seat unit back to its said upper position also serves to cause the back unit to pivotally move back to its said horizontal position, a lever pivoted to the seat unit for movement about a transverse axis near the front thereof, which lever has a rearwardly extending arm and also has a forwardly extending arm with a portion thereof extending under the leg structure to support it, and means on the supporting frame for engaging the rearwardly extending arm of the lever to cause the forwardly extending arm thereof to pivotally swing downwardly about its pivotal axis as the seat unit is moved downwardly and to swing upwardly about its said pivotal axis as the seat unit is moved upwardly, the said forwardly extending arm of the lever causing the leg structure to pivotally move downwardly from its horizontal position as the seat unit is moved downwardly to its lower position and to move pivotally upwardly back to its horizontal position as the seat unit is moved upwardly back to its upper position.

11. A convertible hospital chair as set forth in claim 10, wherein the said lever comprises two similar forwardly extending arms and two similar rearwardly extending arms at opposite sides of the seat unit and of the leg structure, wherein a transverse member is provided which is connected with the two forwardly extending arms and which is positioned under the leg structure to support it, and wherein there are two similar means on the supporting frame for respectively engaging the two rearwardly extending arms.

12. A convertible hospital chair as set forth in claim 10, wherein the rearwardly extending arm of the lever has a longitudinal slot therein, and wherein the means on the supporting frame for engaging the rearwardly extending arm is a pin which enters the said slot.

13. A convertible hospital chair as set forth in
claim 10, wherein a common pivot rod is provided for the leg structure and for the lever which supports the leg structure.

14. A convertible hospital chair as set forth in claim 13, wherein a transverse tubular member is provided on the seat unit at the front thereof, wherein the leg structure comprises at least two transverse tubular members therein, two connected with the first said tubular member, and wherein the common pivot rod extends through the said tubular members and through an aperture in the lever.

15. A convertible hospital chair as set forth in claim 14, wherein there are two transverse spaced aligned tubular members on the seat unit, and wherein the leg structure comprises two similar transversely spaced leg units, each having two transversely spaced tubular members which align with each other and with the tubular members on the seat unit, the two tubular members of each leg unit being at opposite ends of the corresponding tubular members on the seat unit.

16. In a convertible hospital chair, the combination of a supporting frame, a seat unit mounted on the frame and guided for movement to a lower position or to an upper position, a back unit horizontally and transversely pivoted to the seat unit near the rear thereof, a leg structure horizontally and transversely pivoted to the seat unit near the front thereof, the said back unit and leg structure being located in horizontal positions when the seat unit is in its said upper position, means connected with the supporting frame and directly engaging the seat unit for relatively moving the seat unit downwardly to its lower position or upwardly to its upper position, a stationary support for the back unit in engagement therewith at the bottom thereof and at the rear of its pivotal connection with the seat unit, the said support being connected with the frame and positioned to cause the said back unit to relatively move pivotally in the upward direction when the seat unit is moved downwardly to its lower position and the said support permitting the said back unit to relatively move pivotally in the downward direction back to its horizontal position when the seat unit is moved upwardly back to its upper position, a lever pivoted to the seat unit for movement about a transverse axis near the front thereof, which lever has a rearwardly extending arm and also has a forwardly extending arm with a portion thereof extending under the leg structure to support it, and means on the supporting frame for engaging the rearwardly extending arm of the lever to cause the forwardly extending arm thereof to swing downwardly about its pivotal axis as the seat unit is moved downwardly and to swing upwardly about its said pivotal axis as the seat unit is moved upwardly, the said forwardly extending arm of the lever causing the leg structure to move pivotally downwardly from its horizontal position as the seat unit is moved downwardly to its lower position and to move pivotally upwardly back to its horizontal position as the seat unit is moved upwardly back to its upper position.

17. In a convertible hospital chair, the combination of a supporting frame, a seat unit mounted on the frame and guided for movement to a lower position or to an upper position, a back unit horizontally and transversely pivoted to the seat unit near the rear thereof, two similar transversely spaced leg units horizontally and transversely pivoted to the seat unit near the front thereof for movement about a common axis, the said back and leg units being located in horizontal positions when the seat unit is in its said upper position, means connected with the supporting frame and directly engaging the seat unit for relatively moving the seat unit downwardly to its lower position or upwardly to its upper position, means dependent upon downward movement of the seat unit to its said lower position for pivotally moving the back structure to an upwardly inclined position, which means upon upward movement of the seat unit back to its said upper position also serves to cause the back structure to pivotally move back to its said horizontal position, transversely spaced levers pivoted to the seat unit for movement about a horizontal transverse axis near the front thereof, which levers have rearwardly extending arms and also have forwardly extending arms, a transverse member carried by the forwardly extending arms extending under the two leg units to support them, means on the supporting frame for engaging the rearwardly extending arms of the levers to cause the forwardly extending arms and the transverse member to swing downwardly about their pivotal axis as the seat unit is moved downwardly and to swing upwardly about their said pivotal axis as the seat unit is moved upwardly, the said transverse member permitting the two leg units to move pivotally downwardly from their horizontal positions as the seat unit is moved downwardly to its lower position and the said transverse member moving the two leg units pivotally upwardly back to their horizontal positions as the seat unit is moved upwardly back to its upper position, and two means connected respectively with the two leg units and engageable with the transverse member, each of which means serves to releasably hold the corresponding unit in a relatively elevated position to which it may be moved manually.

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