July 10, 1962 P. S. FLETCHER 3,043,621

RECLINING CHAIR OF THE MULTIPLE MOVEMENT TYPE

Filed April 22, 1960 2 Sheets-Sheet 1

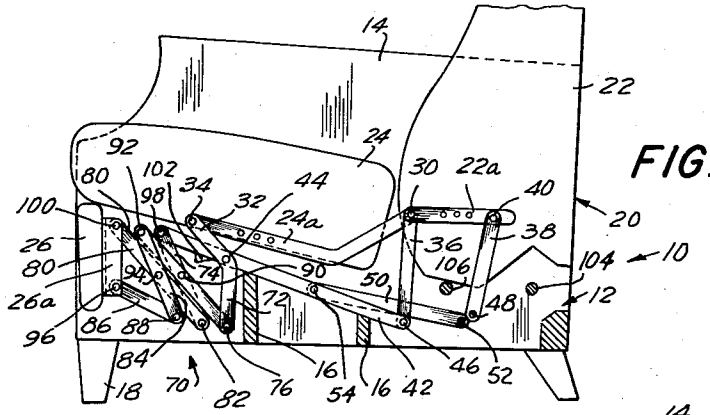


FIG. 1

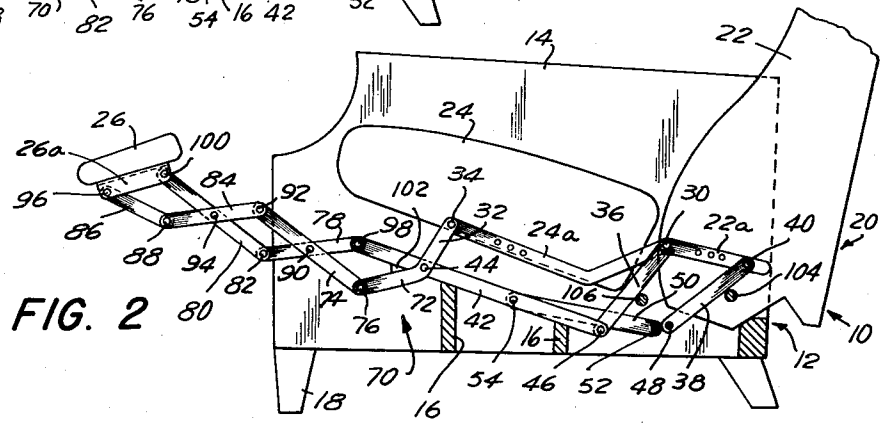


FIG. 2

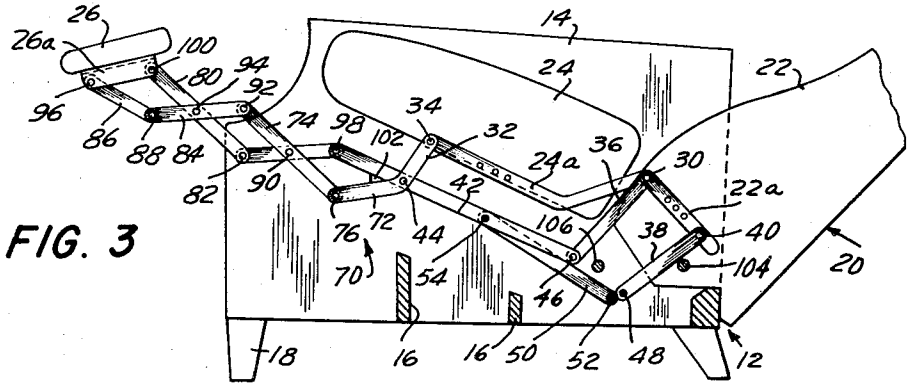


FIG. 3

INVENTOR.
PETER S. FLETCHER

BY Amster + Levy
ATTORNEYS

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RECLINING CHAIR OF THE MULTIPLE MOVEMENT TYPE

Filed April 22, 1960 2 Sheets-Sheet 2

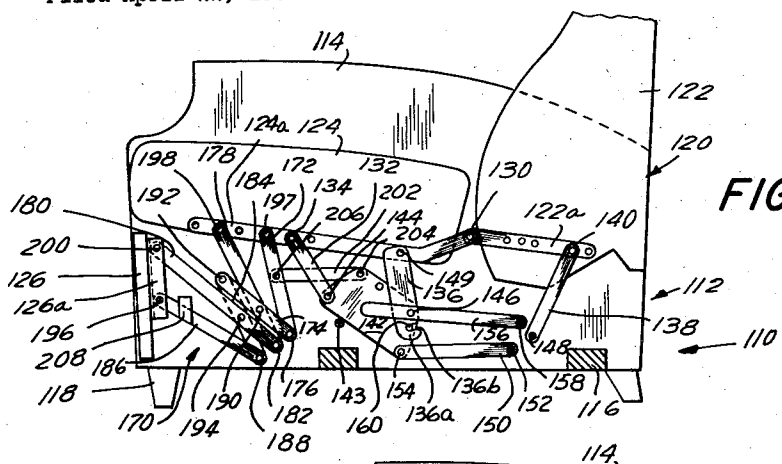


FIG. 4

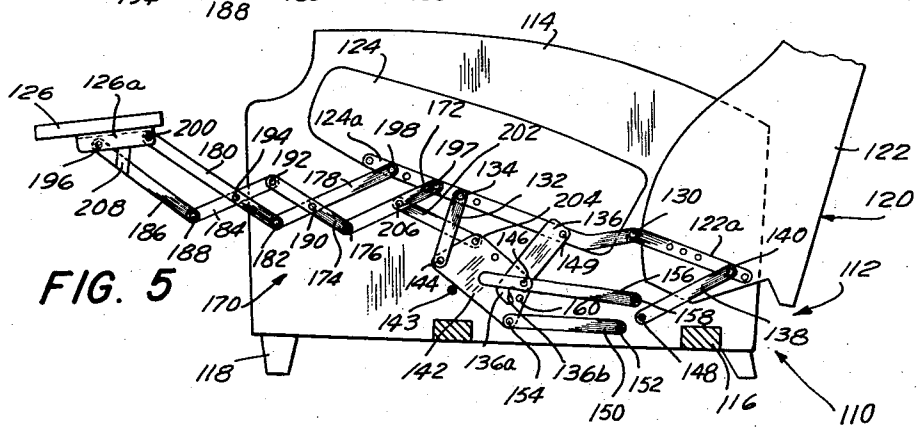


FIG. 5

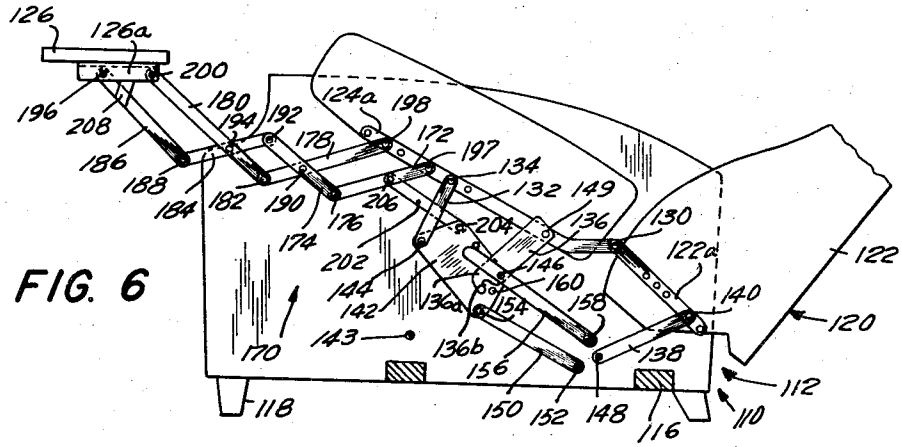


FIG. 6

INVENTOR.
PETER S. FLETCHER

BY Amster & Levy
ATTORNEYS

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3,043,621
RECLINING CHAIR OF THE MULTIPLE MOVEMENT TYPE

Peter S. Fletcher, Delray Beach, Fla., assignor to Anton Lorenz, Boynton Beach, Fla.

Filed Apr. 22, 1960, Ser. No. 23,963
7 Claims. (Cl. 297—85)

The present invention relates generally to reclining chairs, and in particular to an improved reclining chair of the type including body-supporting means having a movable back-rest and a movable seat which are coordinated with each other to include two distinct phases of chair movement.

The well known reclining chair comprises a support, body-supporting means including a back-rest and seat movably mounted on the support and a leg-rest mounted beneath the seat and movable into various elevated leg-supporting positions in response to chair movement. Heretofore there have been two distinct types of reclining chair; those constructed with a unitary back-rest and seat mounted on a support for movement into various tilted positions, and those constructed with a movable back-rest and movable seat and mounted on the support for reclining and inclining movement respectively. Chairs of the type incorporating a unitary back-rest and seat were found to be most suitable for accommodating the chair occupant in a tilted back position, but in a sitting attitude, with the occupant's legs supported on the elevated leg-rest. Chairs of the type incorporating a movable back-rest and movable seat were found to be most suitable for accommodating the chair occupant in a complete and full relaxation position, with the occupant's legs supported on the leg-rest, in that the angle between the back-rest and seat increases in response to the reclining movement of the chair.

Of recent times there has been introduced an improved reclining chair which exhibits attributes of both types of chairs which have been heretofore sold, to wit, those suitable for accommodating the chair occupant in a semi-reclined or tilted back attitude and those suitable for accommodating the chair occupant in a fully reclined or complete relaxation attitude. Provision is made in such chairs of the double movement type for a first movement phase from a sitting position to an intermediate tilted position during which there is substantially no angular displacement between the back-rest and seat, with the leg-rest moving to an elevated leg-supporting position to establish an intermediate tilted position, and for a second movement phase from the intermediate tilted position to a fully reclined position during which the angle between the seat and back-rest opens up, with the leg-rest remaining in an elevated leg-supporting position to establish a complete relaxation or fully reclined position for the chair occupant.

Broadly, it is an object of the present invention to provide an improved reclining chair of the double movement type. Specifically, it is within the contemplation of the present invention to provide improved and simplified coordinating mechanisms for establishing two distinct phases of movement in a reclining chair.

In accordance with an illustrative embodiment demonstrating objects and features of the present invention, there is provided a reclining chair which comprises a support, body-supporting means including a seat and a

back-rest having a pivotal connection therebetween, a second movement link, means pivotally mounting said second movement link on said support, a mounting link, and means pivotally and movably mounting said mounting link on said second movement link. A holding link is pivotally mounted on said mounting link and pivotally connected to said body-supporting means. Front guiding means are pivotally mounted on said mounting link and pivotally connected to said seat, and rear guiding means are pivotally mounted on said support and pivotally connected to said back-rest. The front and rear guiding means guide said body-supporting means during said first movement phase, with the holding link maintaining a substantial rigid relationship between said seat and back-rest and with said second movement link remaining stationary. The second movement link moves relative to said support and said back-rest turns about its pivotal connection to said rear guiding means during said second movement phase to progressively increase the angularly relationship between said seat and back-rest. The chair further includes a leg-rest and a leg-rest linkage which mounts the leg-rest for movement to an elevated leg-supporting position during said first movement phase. The mounting link remains stationary during the first movement phase and effectively is rigid with said support. The mounting link moves during the second movement phase and effectively is rigid with said seat. An actuating means is provided for the leg-rest which is operatively connected between the mounting link and the seat and is responsive to the relative movement therebetween in the first movement phase to move the leg-rest to the elevated leg-supporting position. The effective rigid relationship between the mounting link and the seat during the second movement phase maintains the leg-rest in an elevated leg-supporting position and in a substantially rigid relationship to the seat during such second movement phase.

The above brief description as well as further objects, features and advantages of the present invention will be more fully appreciated by reference to the following detailed description of several illustrative embodiments according to the present invention, when taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a side elevational view, with parts broken away and sectioned, showing a reclining chair of the double movement type embodying features of the present invention, with the chair shown in the upright or sitting position;

FIG. 2 is a side elevational view similar to FIG. 1, but showing the reclining chair in an intermediate tilted or semi-reclined position, with the leg-rest moved to an elevated leg-supporting position;

FIG. 3 is a side elevational view, similar to FIG. 2, but showing the reclining chair in a fully reclined position wherein the back-rest and seat have been angularly displaced relative to each other to establish a complete relaxation position for the chair occupant, with the leg-rest being disposed in an elevated leg-supporting position;

FIG. 4 is a side elevational view, with parts broken away and sectioned, showing a reclining chair of the double movement type embodying features of the present invention, with the chair shown in the upright or sitting position;

FIG. 5 is a side elevational view similar to FIG. 1 but showing the reclining chair in an intermediate tilted or

semi-reclined position, with the leg-rest moved to an elevated leg-supporting position; and,

FIG. 6 is a side elevational view, similar to FIG. 2, but showing the reclining chair in a fully reclined position wherein the back-rest and seat have been angularly displaced relative to each other to establish a complete relaxation position for the chair occupant, with the leg-rest being disposed in an elevated leg-supporting position.

Referring now specifically to FIGS. 1 to 3 of the drawings, there is shown a first embodiment of reclining chair demonstrating features of the present invention, generally designated by the reference numeral **10**, which includes a support or frame **12** having opposite side walls **14** interconnected by suitable cross braces **16** and supported on depending legs **18**.

Body-supporting means **20** including a back-rest **22** and a seat **24** are mounted on the support **12** for reclining and inclining movement respectively for a first movement phase from a sitting position illustrated in FIG. 1 to an intermediate tilted position illustrated in FIG. 2 and for a second movement phase from the intermediate tilted position illustrated in FIG. 2 through a series of reclining positions to a fully reclined position illustrated in FIG. 3.

Disposed beneath the forward end of the seat **24** is a leg-rest **26** which is mounted for movement from a stored retracted position illustrated in FIG. 1 to elevated leg-supporting positions illustrated in FIGS. 2 and 3. As will be described, the leg-rest **26** is coordinated to the body-supporting means **20** for movement into an elevated leg-supporting position in response to the movement of the body-supporting means through the first movement phase and into the intermediate tilted position of FIG. 2, with the leg-rest remaining substantially in the elevated leg-supporting position as the chair moves to the various reclining positions and into the fully reclined position of FIG. 3.

A linkage mechanism or chair hardware is provided at each side of the chair and includes a mounting bracket or fixture **22***a*, fixed to the back-rest, a further mounting bracket or fixture **24***a* fixed to the seat, and a still further mounting bracket or fixture **26***a* fixed to the leg-rest. The mounting bracket **24***a* includes a rearwardly directed rigid hanger arm which is connected to the back-rest **22** and its bracket **22***a* at a seat pivot **30**. A first movement linkage is provided which includes as movable links thereof, a front guiding link **32** having a pivotal connection **34** to the seat **24** at the forward end of the bracket **24***a*, the portion of the seat **24** intermediate the pivotal connections **34**, **30**, a holding or intermediate guiding link **36**, a rear guiding link **38** having a pivotal connection **40** to the back-rest at a point spaced rearwardly of the pivotal connection **30**, and the portion of the back-rest **22** intermediate the pivotal connections **30**, **40**. Relatively stationary links are provided intermediate the respective pivotal mounts of the front, intermediate, and rear guiding links **32**, **36**, **38** respectively. Specifically, there is provided a mounting link **42** which extends lengthwise of the chair frame and rests against the cross braces **16** serving as a stop throughout the first movement phase, as may be appreciated by progressively inspecting FIGS. 1 and 2. The front guiding link **32** which constitutes the upwardly projecting arm of a double-arm lever has a pivotal mount **44** intermediate its ends on the mounting link **42** at a point spaced rearwardly from the forward end thereof. The holding link **36** has a pivotal mount **46** at its lower end on the rearward end of the mounting link **42**, while the rear guiding link has a pivotal mount **48** directly on the support **12**. The mounting link **42** is pivotally and movably mounted on the support by a second movement link **50** which has a pivotal mount **52** at its rearward end on the support and a pivotal connection **54** at its forward end to the mounting link **42** intermediate the pivotal connections **44**, **46**.

The leg-rest **26** is mounted for movement from the retracted position of FIG. 1 to the elevated leg-supporting positions illustrated in FIGS. 2 and 3 by a leg-rest mounting linkage, generally designated by the reference numeral **70**, which includes a first pair of links **72**, **74** having a pivotal interconnection **76** at their adjacent ends, a second pair of links **78**, **80** having a pivotal connection **82** at their adjacent ends, and a third pair of links **84**, **86** having a pivotal connection **88** at their adjacent ends. The link **72** is seen to be a depending extension rigid with the front guiding link **32**, with the links **32**, **72** constituting the double-arm lever having the pivotal mount **44**. The link **74** of the first link pair crosses over the link **78** of the second link pair and has a pivotal connection **90** thereto. The forward end of the link **74** of the first link pair has a pivotal connection **92** to the link **84** of the third link pair. The link **84** in turn crosses over the link **80** of the second link pair and has a pivotal connection **94** thereto at the cross over point, with the link **86** of the third link pair having a pivotal connection **96** at its forward end to the lower end of the leg-rest. The link **78** of the second link pair has a pivotal connection **90** at its upper end to the forward end of the mounting link **42**, while the link **80** of the second link pair has a pivotal connection **100** at its forward end to the upper end of the leg-rest **26**. The leg-rest mounting linkage **70** will be recognized as being of the lazy-tong type wherein a turning movement of the link **72** in a direction to move the pivotal connection **76** toward the pivotal connection **98** is effective to extend such lazy tong linkage to move the leg-rest **26** to the extended and elevated leg-supporting position shown in FIGS. 2 and 3. Specifically, during the first movement phase the front guiding link **32** which turns in the clockwise direction about the relatively stationary pivotal mount **44** in response to the rearward movement of the seat **24** serves as a driver to the leg-rest mounting linkage which brings about a corresponding clockwise turning movement of the link **72** about the relatively stationary pivotal mount **44**.

Provision is made for blocking the leg-rest mounting linkage **70** and for establishing a substantially rigid relationship between the leg-rest **26** and the seat **24** at the end of the first movement phase (see FIG. 2). This rigid relationship is maintained through the second movement phase, with the seat **24** and leg-rest **26** being elevated as a unit. Specifically, a stop **102** is fixed to the under surface of the link **42** in advance of the pivotal mount or connection **44**, which stop abuts the link **72** of the first link pair **72**, **74** in the requisite intermediate position for the chair and thereafter renders the leg-rest mounting linkage **70**, the leg-rest **26** and the seat **24** rigid with each other. Further, a stop **104** is arranged to abut the rear guiding link **38** at the end of the first movement phase (see FIG. 2) and a stop **106** is arranged to abut the second movement link **50** at the end of the second movement phase (see FIG. 3).

For better understanding in this illustrative embodiment of the present invention, reference will now be made to a typical sequence of operations:

When the chair occupant is seated in the chair **10** and leans against the back-rest **22**, the body-supporting means **20** is displaced rearwardly and downwardly relative to the support, with substantially no angular displacement between the back-rest **22** and the seat **24**. During such first movement phase, the chair linkage which includes the three movable links **32** and **38** guide the body supporting means with link **36** maintaining the desired relationship between the back-rest **22** and the seat **24**, with substantially no angular change therebetween or with a slight opening of the angle therebetween if such is desirable. Incident to such rearward movement of the body-supporting means **20**, a turning movement is imparted to the double-arm lever **32**, **72** which moves the leg-rest **26** to the elevated leg-supporting position shown

in FIG. 2. The end of the first movement phase is established when the link **72** abuts the stop **102** and at such time the leg-rest linkage **70** and the links **32, 36** become substantially unitary with the mounting link **42** and the rear guiding link **38** becomes substantially unitary or fixed in relation to the support. During the second movement phase, the second movement link **50** turns in the clockwise direction about its pivotal mount **52** to bring about a lifting of the seat **24** and the leg-rest **26** in the desired relationship. Simultaneously, the back-rest **22** turns about the pivotal connection **40** to the rear guiding link **38** serving as a relatively stationary mount throughout the second movement phase. As may be appreciated by progressively inspecting FIGS. 2 and 3, the turning movement of the second movement link generally guides the seat **24** and the leg-rest **26** in an upward direction, while the back-rest simultaneously turns rearwardly about its pivotal connection **40** serving as a relatively stationary pivotal mount to open up the included angle between the back-rest and seat and to thereby establish a number of intermediate reclining positions and the fully reclined position of FIG. 3.

In this illustrative embodiment, the end of the second movement phase is established when the back-rest abuts the rear cross brace of the chair frame **12** serving as a stop.

When the chair occupant desires to restore the chair to the upright or sitting position illustrated in FIG. 1, the occupant leans forwardly such that the back-rest, seat and leg-rest move through the reverse sequence, with the chair first moving into the intermediate tilted position of FIG. 2 and then returning to the upright or sitting position illustrated in FIG. 1.

Referring now specifically to FIGS. 4 to 6 of the drawings, there is shown a further embodiment of reclining chair demonstrating features of the present invention, generally designated by the reference numeral **110**, which includes a support or frame **112** having opposite side walls **114** interconnected by suitable cross braces **116** and supported on depending legs **118**.

Body-supporting means **120** including a back-rest **122** and a seat **124** are mounted on the support **112** for reclining and including movement respectively for a first movement phase from a sitting position illustrated in FIG. 4 to an intermediate tilted position illustrated in FIG. 5 and for a second movement phase from the intermediate tilted position illustrated in FIG. 5 through a series of reclining positions to a fully reclined position illustrated in FIG. 6.

Disposed beneath the forward end of the seat **124** is a leg-rest **126** which is mounted for movement from a stored retracted position illustrated in FIG. 4 to elevated leg-supporting positions illustrated in FIGS. 5 and 6. As will be described, the leg-rest **126** is coordinated to the body-supporting means **120** for movement into an elevated leg-supporting position in response to the movement of the body-supporting means through the first movement phase and into the intermediate tilted position of FIG. 5, with the leg-rest remaining substantially in the elevated leg-supporting position as the chair moves to the various reclining positions and into the fully reclined position of FIG. 6.

A linkage mechanism or chair hardware is provided at each side of the chair and includes a mounting bracket or fixture **122***a*, fixed to the back-rest, a further mounting bracket or fixture **124***a* fixed to the seat, and a still further mounting bracket or fixture **126***a* fixed to the leg-rest. The mounting bracket **124***a* includes a rearwardly directed rigid hanger arm which is connected to the back-rest **122** and its bracket **122***a* at a seat pivot **130**. A first movement linkage is provided which includes as movable links thereof a front guiding link **132** having a pivotal connection **134** to the seat **124** at the forward end of the bracket **124***a*, the portion of the seat **124** intermediate the pivotal connections **134, 130**, a rear guiding link **138** having a

pivotal connection **140** to the back-rest at a point spaced rearwardly of the pivotal connection **130**, and the portion of the back-rest intermediate the pivotal connections **130, 140**. Relatively stationary links are provided intermediate the respective pivotal mounts of the front, and rear guiding links **132, 138** respectively. Specifically, there is provided a mounting plate **142** which rests against a stop **143** throughout the first movement phase, as may be appreciated by progressively inspecting FIGS. 4 and 5. The front guiding link **132** has a pivotal mount **144** intermediate its ends on the mounting plate **142** adjacent the forward end thereof. The holding link **136** has a pivotal mount **146** adjacent its lower end on the mounting plate **142**, while the rear guiding link **138** has a pivotal mount **148** directly on the support **112**. Further, the holding link **136** has a pivotal connection **149** to the seat **124** intermediate the pivotal connections **134, 130**. The mounting plate **142** is pivotally and movably mounted on the support by a second movement link **150** which has a pivotal mount **152** at its rearward end on the support **112** and a pivotal connection **154** at its forward end to the mounting plate **142**.

In this illustrative embodiment, provision is made for locking the second movement linkage against movement at the start of the first movement phase such as to assure that the first and second movement linkages will operate in the order named. Specifically, the second movement linkage includes a further second movement holding link **156** which has a pivotal mount **158** at its rearward end on the support **112** and a pivotal connection adjacent its forward end to the mounting plate **142** coaxially with the pivotal connection **146** of the holding link **136** to the mounting plate **142**. The holding link **136** includes a depending integral extension **136***a* which is provided with a seating notch **136***b* which engages a pin **160** fixed to the mounting plate **142** when the holding link is in the position corresponding to the sitting position of the chair. It will be appreciated that the pin **160** engaged within the notch **136***b* in the link extension **136***a* effectively locks the further second movement link **156** against turning movement about its pivotal mount **158**. During the early portion of the first movement phase, the holding link **136** turns in the clockwise direction about the pivotal mount or connection **146** which moves the locking notch **136***b* out of engagement with the pin **160**, with the locking arrangement being completely unlocked in the intermediate tilted position of FIG. 5 such that there can be relative movement between the second movement holding link **156** and the mounting plate **142** during the second movement phase.

The leg-rest **126** is mounted for movement from the retracted position of FIG. 4 to the elevated leg-supporting positions illustrated in FIGS. 5 and 6 by a leg-rest mounting linkage, generally designated by the reference numeral **170**, which includes a first pair of links **172, 174** having a pivotal interconnection **176** at their adjacent ends, a second pair of links **178, 180** having a pivotal connection **182** at their adjacent ends, and a third pair of links **184, 186** having a pivotal connection **188** at their adjacent ends. The link **172** of the first link pair has a pivotal mount **197** at its upper end on the forward end of the bracket **124***a*. The link **174** crosses over the link **178** and has a pivotal connection **190** thereto. The forward end of the link **174** of the first link pair has a pivotal connection **192** to the link **184** of the third link pair. The link **184** in turn crosses over the link **180** of the second link pair and has a pivotal connection **194** thereto at the cross over point. The link **186** of the third link pair has a pivotal connection **196** at its forward end to the lower end of the leg-rest. The link **178** of the second link pair has a pivotal connection **198** at its upper end to the forward end of the bracket **124***a*, while the link **180** of the second link pair has a pivotal connection **200** at its forward end to the upper ends of the leg-rest **126**. The link **172** of the first link pair is constrained by an actuat-

ing link 202 which has a pivotal mount 204 at its rearward end on the mounting plate 142 and a pivotal connection 206 at its forward end to the link 172. The leg-rest mounting linkage 170 will be recognized as being of the lazy-tong type wherein a turning movement of the link 172 in a direction to move the pivotal connection 176 toward the pivotal connection 198 is effective to extend such lazy-tong linkage and to move the leg-rest 126 to the extended and elevated leg-supporting positions shown in FIGS. 5 and 6. Specifically, during the first movement phase the rearward movement of the seat 124 actuates the leg-rest mounting linkage, with clockwise turning movement of the link 172 about the pivotal mount 197.

Provision is made for blocking the first movement linkage and for establishing a substantially rigid relationship between the leg-rest 126 and the seat 124 at the end of the first movement phase (see FIG. 5) which rigid relationship is maintained throughout the second movement phase, with the seat 124 and the leg-rest 126 being elevated as a unit. Specifically, a stop 208 is fixed to the link 186 in advance of the pivotal connection 196 which stop abuts the bracket 126*a* for the leg-rest 126 in the requisite intermediate position for the chair and thereafter renders the leg-rest mounting linkage 170, the leg-rest 126 and the seat 124 rigid with each other.

In that the operation of this embodiment is substantially identical to that of the embodiment illustrated in FIGS. 1 to 3, except for the sequencing means previously described, further description is dispensed with in the interests of brevity.

A latitude of modification, change and substitution is intended in the foregoing disclosure, and in some instances some features of the invention will be employed without a corresponding use of other features. Accordingly it is appropriate that the appended claims be construed broadly and in a manner consistent with the spirit and scope of the invention herein.

What I claim is:

1. A reclining chair comprising a support, body-supporting means including a seat and a back-rest having a pivotal connection therebetween, a second movement link, means pivotally mounting said second movement link on said support, a mounting link, means pivotally and movably mounting said mounting link on said second movement link, a holding link, means pivotally mounting said holding link on said mounting link, means pivotally connecting said holding link to said body-supporting means, front guiding means pivotally mounted on said mounting link and pivotally connected to said seat, rear guiding means pivotally mounted on said support and pivotally connected to said back-rest, said front and rear guiding means and said holding link moving during a first movement phase and maintaining a substantial rigid relationship between said seat and back-rest with said second movement link remaining stationary, said second movement link moving relative to said support and said back-rest turning about its pivotal connection to said rear guiding means during a second movement phase to progressively increase the angular relationship between said seat and back-rest, a leg-rest, and a leg-rest linkage mounting said leg-rest for movement to an elevated leg-supporting position during said first movement phase, said mounting link remaining stationary during said first movement phase and effectively being rigid with said support, said mounting link moving during said second movement phase and effectively being rigid with said seat, and actuating means for said leg-rest operatively connected between said mounting link and said seat and responsive to the relative movement therebetween in said first movement phase to move said leg-rest to said elevated leg-supporting position, the effective rigid relationship between said mounting link and said seat during said second movement phase maintaining said leg-rest in an elevated leg-supporting position and in a substantially rigid relationship to said seat.

2. A reclining chair comprising a support, body-supporting means including a seat and a back-rest having a pivotal connection therebetween, a second movement link, means pivotally mounting said second movement link on said support, a mounting link, means pivotally and movably mounting said mounting link on said second movement link, a holding link, means pivotally mounting said holding link on said mounting link, means pivotally connecting said holding link to said body-supporting means, front guiding means pivotally mounted on said mounting link and pivotally connected to said seat, rear guiding means pivotally mounted on said support and pivotally connected to said back-rest, said front and rear guiding means and said holding link moving during a first movement phase and maintaining a substantial rigid relationship between said seat and back-rest with said second movement link remaining stationary, said second movement link moving relative to said support and said back-rest turning about its pivotal connection to said rear guiding means during a second movement phase to progressively increase the angular relationship between said seat and back-rest, a leg-rest, and a leg-rest linkage mounting said leg-rest on said mounting link for movement to an elevated leg-supporting position during said first movement phase, said mounting link remaining stationary during said first movement phase and effectively being rigid with said support, said mounting link moving during said second movement phase and effectively being rigid with said seat, and actuating means for said leg-rest operatively connected between said mounting link and said seat and responsive to the relative movement therebetween in said first movement phase to move said leg-rest to said elevated leg-supporting position, the effective rigid relationship between said mounting link and said seat during said second movement phase maintaining said leg-rest in an elevated leg-supporting position and in a substantially rigid relationship to said seat.

3. A reclining chair according to claim 2 wherein said leg-rest linkage has spaced pivotal mounts on said mounting link.

4. A reclining chair according to claim 2 wherein said actuating means includes a rigid extension of one link of said leg-rest linkage having a pivotal connection to said seat.

5. A reclining chair comprising a support, body-supporting means including a seat and a back-rest having a pivotal connection therebetween, a second movement link, means pivotally mounting said second movement link on said support, a mounting link, means pivotally and movably mounting said mounting link on said second movement link, a holding link, means pivotally mounting said holding link on said mounting link, means pivotally connecting said holding link to said body-supporting means, front guiding means pivotally mounted on said mounting link and pivotally connected to said seat, rear guiding means pivotally mounted on said support and pivotally connected to said back-rest, said front and rear guiding means and said holding link moving during a first movement phase and maintaining a substantial rigid relationship between said seat and back-rest with said second movement link remaining stationary, said second movement link moving relative to said support and said back-rest turning about its pivotal connection to said rear guiding means during a second movement phase to progressively increase the angular relationship between said seat and back-rest, a leg-rest, and a leg-rest linkage mounting said leg-rest on said seat for movement to an elevated leg-supporting position during said first movement phase, said mounting link remaining stationary during said first movement phase and effectively being rigid with said support, said mounting link moving during said second movement phase and effectively being rigid with said seat,

and actuating means for said leg-rest operatively connected between said mounting link and said seat and responsive to the relative movement therebetween in said first movement phase to move said leg-rest to said elevated leg-supporting position, the effective rigid relationship between said mounting link and said seat during said second movement phase maintaining said leg-rest in an elevated leg-supporting position and in a substantially rigid relationship to said seat.

6. A reclining chair according to claim 5 wherein said leg-rest linkage has spaced pivotal mounts on said seat.

7. A reclining chair according to claim 5 wherein said

actuating means includes an actuating link pivotally mounted on said mounting link and pivotally connected to said leg-rest linkage.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,043,621 July 10, 1962

Peter S. Fletcher

It is certified that error appears in the above identified patent and that said Letters Patent are hereby corrected as shown below:

In the drawings, the pin "160" in Figures 4, 5 and 6 should be cross hatched to show that it is in section. The pin should also be in the same position with reference to the pivots 152 and 158 in FIG. 6, as it is in Figures 4 and 5. Column 6, lines 35 and 36, and line 49, "mounting plate 142" should read -- support 112 --.

Signed and sealed this 30th day of September 1969.

(SEAL)
Attest:

Edward M. Fletcher, Jr.
Attesting Officer

WILLIAM E. SCHUYLER, JR.
Commissioner of Patents