Sept. 10, 1968 W. C. ROGERS, JR 3,400,975

FOOTREST AND ASSOCIATED LINKAGE FOR CHAIR

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FIG. 1

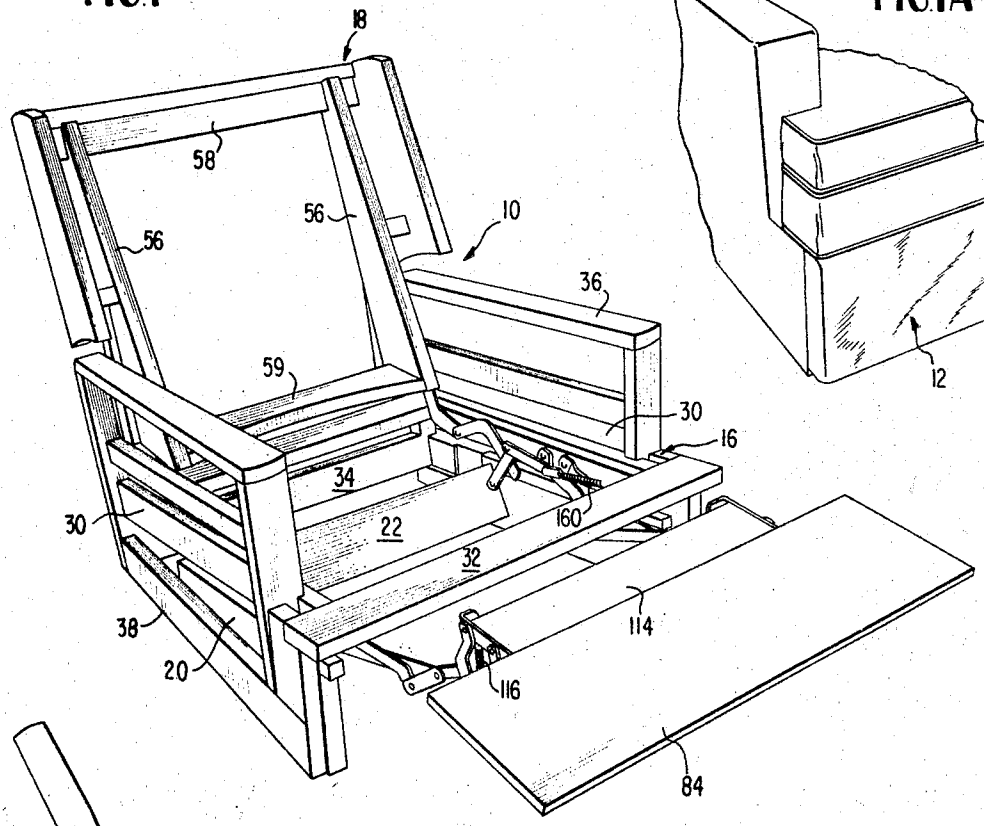


FIG. 1A

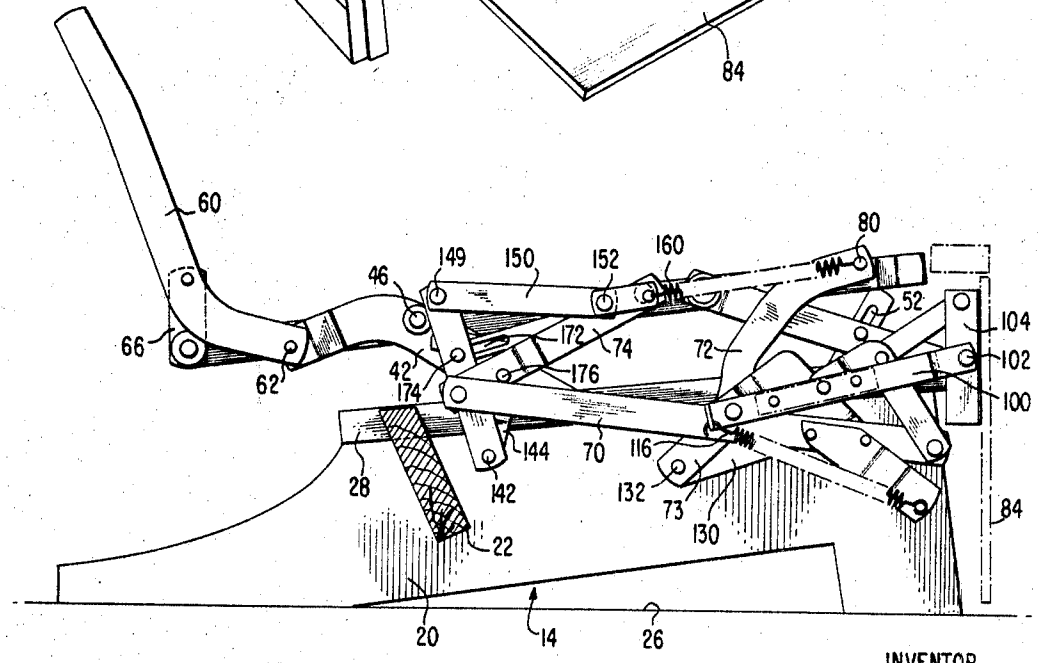


FIG. 2

INVENTOR
WALTER CLARK ROGERS, JR.

BY Browne, Schlagler & Beveridge

ATTORNEYS

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FIG.3

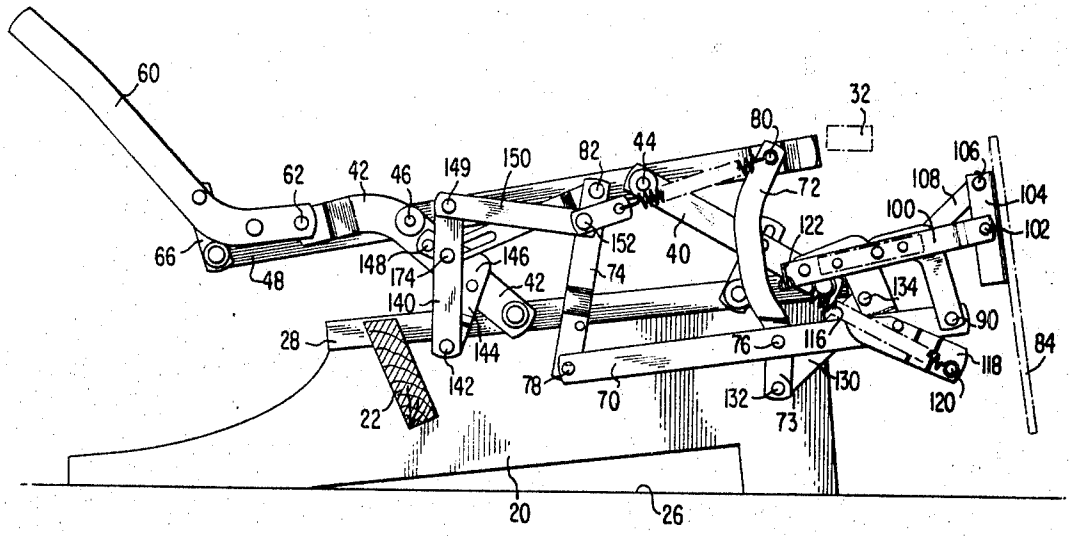


FIG.6

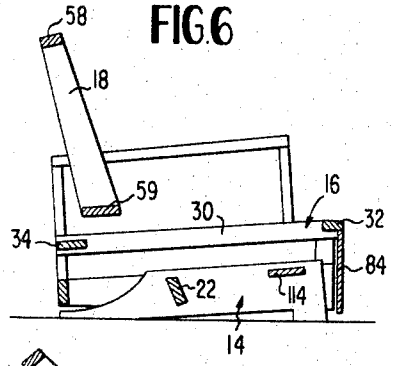


FIG.7

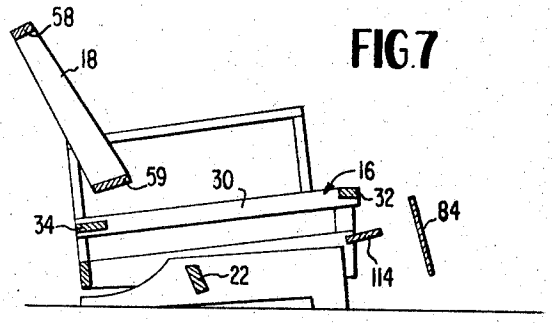


FIG.8

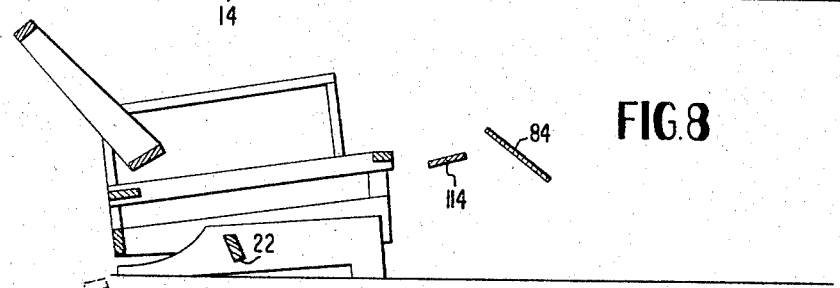
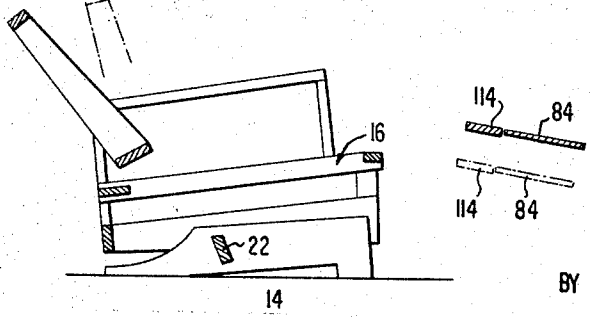


FIG.9



INVENTOR

WALTER CLARK ROGERS, JR.

BY Browne, Schuyler & Beveridge

ATTORNEYS

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FIG. 4

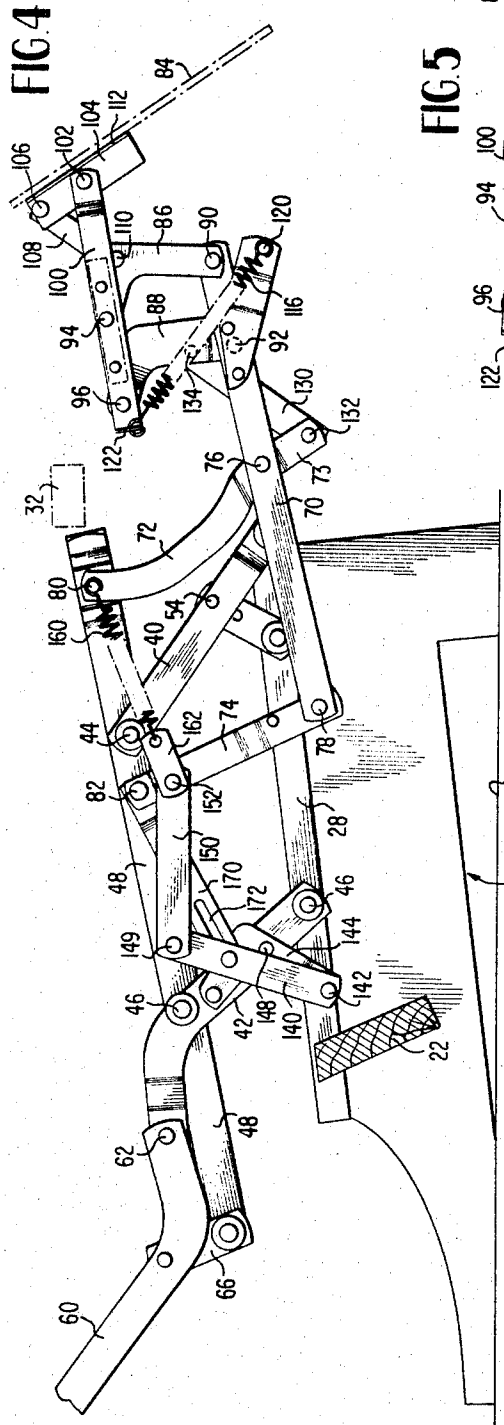


FIG. 5

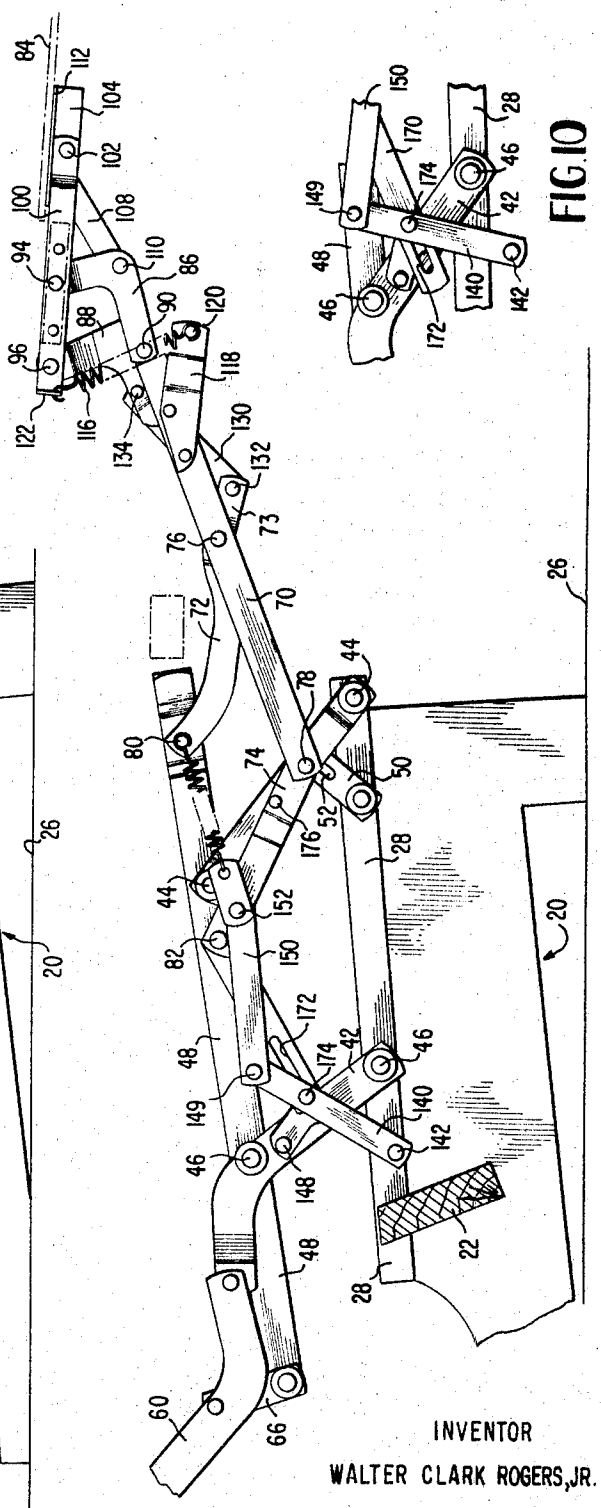


FIG. 10

INVENTOR
WALTER CLARK ROGERS, JR.

BY Browne, Schuyler & Beveridge
ATTORNEYS

United States Patent Office 3,400,975 Patented Sept. 10, 1968

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FOOTREST AND ASSOCIATED LINKAGE FOR CHAIR

Walter Clark Rogers, Jr., High Point, N.C., assignor to Royal Development Company, Inc., High Point, N.C., a corporation of North Carolina

Filed Feb. 1, 1967, Ser. No. 613,362
26 Claims. (Cl. 297—75)

ABSTRACT OF THE DISCLOSURE

In a reclining chair movable between normal and reclining positions, dual footrests movable from retracted positions to extended, use positions in response to movement of the chair into a reclining position.

The present invention is a new and improved footrest and associated linkage particularly suitable for use in a reclining chair although not limited thereto. The footrest is the type which is movable between a retracted, idle position and an extended operative position projected forwardly from the chair. Although the linkage is shown and described herein in connection with a footrest that extends vertically below the front rail of the chair in retracted position, the present invention or at least portions thereof may be employed in other designs.

An object of the present invention is to provide for use with a chair, an improved footrest that may be quickly and conveniently moved between extended and retracted positions while having a compact construction enabling the space requirement below the associated chair to be reduced. Included herein is the provision of a new linkage system, including new linkage subassemblies therein, which is particularly suitable for mounting the footrest to the associated chair such that the footrest depends vertically below the front rail of the chair when in retracted position.

A further object of the present invention is to provide such a footrest and linkage which may be incorporated into a reclining chair such that movement of the chair into reclining position will cause the footrest to automatically move to the extended position. Included herein is such a footrest which will remain in extended position although the associated chair is restored to normal upright position but which may be manually actuated between its extended and retracted position when the chair is in the normal position.

A further object of the present invention is to provide such a footrest and linkage which may be relatively economically fabricated from standard linkage parts and incorporated into various upholstered chairs or the like without impairing their appearance or construction.

Other objects and advantages of the present invention will become apparent from the following detailed description in conjunction with the accompanying drawings, in which:

FIGURE 1 is a perspective view of a reclining type chair equipped with a footrest and linkage embodying the present invention and shown in the fully extended position;

FIGURE 1*a* is a fragmental, perspective view of an upholstered chair corresponding to that shown in FIGURE 1 but with the footrest depicted in retracted position;

FIGURE 2 is an enlarged side view of the chair of FIGURE 1 with portions of the frame removed and the footrest shown in fully retracted position.

FIGURE 3 is a view similar to FIGURE 2 but with the footrest shown in an initial stage of unfolding into the extended position;

FIGURE 4 is a view similar to FIGURE 3 but with the footrest in a further extended position;

FIGURE 5 is a view similar to FIGURE 4 but with the footrest in the fully extended position;

FIGURE 6 through 9 are side views of the chair to a reduced scale and with the linkage removed, illustrating sequential positions of the footrest when moving between the fully retracted and extended positions; and

FIGURE 10 is a fragmental side view of a part of the linkage shown wherein the footrest is extended but with the backrest in normal or upright position.

For illustrative purposes only there is shown in FIGURES 1 and 1*a* of the drawings a reclining type chair generally designated **10** incorporating one embodiment of the footrest of the present invention, the latter being generally designated **12**. Apart from the footrest, the illustrated chair corresponds generally to the position chair disclosed in FIGURES 8 and 9 of my copending United States application entitled "Positionable Chair," Ser. No. 523,296, filed Jan. 27, 1966, now U.S. Patent No. 3,337,267, this chair being movable between normal or upright positions illustrated herein in FIGURE 6 and a reclining position illustrated herein in FIGURE 9. Basically included in the chair are a base **14**, a seat frame **16**, pivotally mounted on base **14**, and a backrest **18** pivotally connected with respect to seat frame **16** for movement between normal and reclining positions shown in FIGURES 6 and 9.

Base **14** may be of any suitable construction and in the illustrated embodiment it includes two wooden side members **20** interconnected by a cross piece **22** with the side members extending forwardly and rearwardly of the chair so as to engage the floor or similar surface represented by numeral **26**. On the top edge of each base member **20** is fixed a metallic mounting tube **28** for pivotally mounting the linkage elements which support the seat frame as will be described. Base members **20** are of sufficient height to define a space beneath the seat frame for receiving the linkage of footrest **12**. As will be apparent this space may be of a relatively shallow depth because of the improved footrest linkage of the present invention.

Seat frame **16** in the illustrated embodiment includes opposite wooden side rails **30** interconnected by front and back rails **32** and **34** to form a generally rectangular frame which is adapted to support a suitable cushion seat or the like not shown. Arm rests **36** are suitably fixed to side rails **30** to move together with the seat frame. In the shown embodiment, arm rests **36** have portions **38** which depend below side rails **30** on opposite sides of base members **30** as shown in FIGURE 1.

Seat frame **16** is pivotally mounted to base **14** for movement between a normal position shown in FIGURES 2 and 6 and a fully reclining position shown in FIGURES 5 and 9 by identical linkage systems on each side of the chair including a pair of front and rear support links **40, 42** pivotally connected by pivot pins **44, 46** with respect to side rails **30** of the seat frame and tubes **28** on base members **20**. While support links **40, 42** may be pivotally connected directly to side rails **30** of the seat frame, in the shown embodiment they are pivotally connected to elongated mounting or seat links **48** which in turn are fixed to the inside surface of said rails **30** of the seat frame.

Thus seat frame **16** is mounted on each side by support links **40, 42** so that it will be swung upwardly and forwardly relative to base **14** upon clockwise movement of support links **40, 42** as illustrated in FIGURES 2 to 5. Limiting such movement of seat frame **16** and defining the upper and lower positions thereof relative to base **14** is a stop mechanism shown as including a stop link **50** fixed to base tubes **2 8**on each side of the chair and projecting upwardly and forwardly at an angle. Longitudinally formed in each stop link **50** is an elongated slot **52**

which receives a stop pin 54 fixed to front support link 40. Engagement of stop pin 54 in opposite ends of slot 52 limits movement of the support links 40, 42 and consequently seat frame 16 relative to base 14.

Actuation of seat frame 16 between raised and lowered positions described above is achieved in the shown embodiment through backrest 18 which typically includes a generally rectangular frame formed by opposite side rails 56 interconnected by top and bottom rails 58, 59. Any suitable backrest proper such as may include cushioning (not shown) is fixed to the backrest frame to support the back of the occupant. Backrest 18 is pivotally connected on seat frame 16 for swinging movement between the normal or upright position, and the reclined position by backrest links 60 fixed to each backrest side rail 56 and projecting downwardly while curving toward the front of the chair for a distance sufficient to be pivotally connected by pins 62 to rear support links 42.

Thus when backrest 18 is pivoted counterclockwise (as viewed in the drawings) such as by the occupant applying back pressure on the back seat, backrest links 60 will cause clockwise rotation of rear support links 42 to thus raise and move forwardly seat frame 16 into the position illustrated in FIGURES 5 and 9. When the occupant releases pressure on the backrest, the occupant's weight will cause the support links 40, 42 to move in reverse directions thus restoring the chair to its normal or upright position shown in FIGURES 2 and 6.

To limit movement of backrest 18 relative to seat frame 16, a short link 66 is pivotally connected at its opposite ends to each pair of backrest links 60 and seat link 48. For a more detailed description of the structure and operation of the above described linkage reference may be had to my above-identified Patent No. 3,337,267.

In accordance with the present invention there is provided an improved linkage which supports the footrest 12 between an extended, generally horizontal position and a retracted vertical position below front rail 32 of the chair. In the illustrated embodiment identical linkage systems for the footrest are provided on each side of the chair and so only one linkage system need be described.

In the form shown in the drawings, each linkage includes an elongated extension link 70 adapted to be swung forwardly and rearwardly of the chair between a projected position shown in FIGURE 1 and a retracted position beneath the chair as shown in FIGURE 2. Extension link 70 is mounted for this movement by a pair of front and rear support or mounting links 72, 74 having their lower ends pivotally connected by pins 76, 78 to intermediate and rear points on the extension link and their upper ends pivotally connected by pins 80, 82 to corresponding points on seat link 48. In the fully retracted position as shown in FIGURE 2, mounting links 72, 74 extend from their upper pivots 80, 82 downwardly and rearwardly of the chair at acute angles to seat link 48. In moving forwardly of the chair to project extension link 70, mounting links 72, 74 move counterclockwise (as viewed in the drawings) about their upper pivots 80, 82.

The footrest includes a base or frame 84 mounted to the forward end of extension link 70 by a linkage including a pair of links 86, 88, shown as L-shaped, the lower ends of which are pivoted by pins 90, 92 to the opposite sides of extension link 70 at points spaced along the forward end of the latter. The opposite, angularly projecting ends of links 86, 88 are pivotally connected by pins 94, 96 to a footrest support link 100, link 88 being pivoted to the rear end of footrest support link 100 and link 86 at an intermediate point of the latter. Footrest support link 100 projects beyond its connection to link 86 and terminates in a forward portion pivotally connected by pin 102 to a second footrest support link illustrated as an L-shaped bracket member 104, this latter connection being made intermediate the ends of bracket member 104. The rear or upper end of bracket link 104 is pivoted by pin 106 to a connecting link 108 the rear end of which is pivoted to L-shaped link 86 by pin 110 at the bend or juncture between the angular arms of link 86. Footrest link 104 has flange portion 112 to which the footrest frame 84 is secured in any suitable manner. If desired a second footrest section 114 may be secured to link 100 as shown in FIGURE 1.

It will be seen that when L-shaped links 86, 88 are pivoted clockwise about their lower pivots 90, 92, footrest support link 100 will unfold generally away from extension link 70 and connecting link 108 will be projected and ultimately moved downwardly relative to link 100 because of the connection of link 108 to L-shaped link 86. This will cause bracket link 104 to pivot about pin 102 counterclockwise until limited by engagement on link 100 at which time footrest frames 84 and 114 will be substantially coplanar. This engagement of bracket link portion 112 on link 100 will also in effect limit further movement of L-shaped links 86, 88, beyond their extended positions shown in FIGURE 5.

To facilitate movement of footrest support links 100, 104 into their fully extended positions and also to eliminate slack and play, a tension spring 116 is provided. Tension spring 116 is fixed at one end to an anchor member rigidly projecting forwardly and downwardly from a forward portion of extension link 70 and having a lug 120 receiving one end of spring 116. The opposite end of spring 116 is hooked in an aperture formed in a lateral flange 122 extending inwardly from the rear end of footrest support link 100.

For moving footrest support links 100, 104 relative to extension link 70 to pivot the footrest sections into their extended coplanar positions when extension link 70 is projected, the rear L-shaped link 88 is operatively connected to front mounting link 72 to be actuated thereby. This is accomplished by a lower, rigid extension 73 of link 72 and a connecting link 130 having one end connected by pivot pin 132 to extension 73 and an opposite end connected by pin 134 to rear L-shaped link 88 at a point adjacent and above pivot pin 92. Thus upon swinging of extension mounting links 72, 74 forwardly to project extension link 70, connecting link 130 will unfold L-shaped link 88 clockwise to raise and project footrest support link 100 which in turn will cause clockwise rotation of front L-shaped link 76. This rotation of L-shaped link 86 will move link 108 to pivot bracket link 104 counterclockwise into engagement on link 100 thus finally pivoting the footrest sections into their use positions.

In order that the footrest linkage may be extended to project the footrest in the use position when the chair is moved into reclining position, there is provided a linkage including what may be termed as a prime actuating link 140 which is operatively pivotally connected to the rear seat frame support link 42 so as to be pivoted thereby to actuate the footrest linkage. In the illustrated embodiment, this operative connection is accomplished by connecting the lower end of prime actuating link 140 by a pin 142 to a rigid projection 144 from link 42, the projection extending downwardly and slightly rearwardly from link 42. Projection 144 is shown as an arm of an L-shaped link 146 rigidly fastened at points 148 to link 42. The upper end of prime actuating link 140 is pivotally connected by pin 149 to a connecting link 150 which in turn is pivoted by pin 152 to an upper point of rear extension mounting link 74 adjacent and below its pivotal connection 82 to seat link 48. Thus upon clockwise pivoting of rear seat frame support link 42, prime actuating link 140 will pivot clockwise about pivot pin 142 to unfold and extend connecting link 150 which in turn will counterclockwise swing rear extension mounting link 74 forwardly to project extension link 70 and thereby ultimately place the footrest into the extended position as describe above.

Facilitated movement of prime actuating link 140, connecting link 150 and rear mounting link 74 to their extended positions is provided by a tension spring 160

having one end anchored about pivot pin **80** connecting forward mounting link **72** to the seat link and its opposite end connected to rear mounting link **74**.

In order to positively prevent movement of prime actuating link **140** beyond its opposite extreme positions, a stop link **170** is pivoted to pin **82** which mounts seat frame support link **74** to seat link **48**. Stop link **170** extends slightly downwardly and rearwardly of the chair and has in its free end portion an elongated slot **172** which slideably receives stop pin **174** fixed intermediate the ends of prime actuating link **140**, stop pin **174** being positioined closer to the upper end of prime actuating link **140**. When the chair is in the fully reclining position with the footrest fully extended, stop pin **174** will be engaged against the rear end of slot **172** as shown in FIGURE 5. When the chair is in normal position but with the footrest extended stop pin **174** will be engaged against the opposite or forward end of slot **172** as shown in FIGURE 10. When the footrest is fully retracted, stop pin **174** will be engaged against the rear end of slot **172** as shown in FIGURE 2. It will thus be apparent that when the chair is moved to normal position from reclining position with the footrest extended, prime actuating link **140** and associated connecting link **150** will partially fold until stop pin **174** engages the forward end of slot **172**. The result is that the footrest will remain extended but at a lower level as illustrated in dotted lines in FIGURE 9.

Movement of extension link **70** beyond its fully retracted position shown in FIGURE 2 is prevented by stop pin **176** fixed to rear extension support link **74** adjacent the lower end thereof. Stop pin **176** is engageable with the upper edge of extension link **70** as shown in FIGURE 2 to limit its retracting movement.

To review operation of the chair, assuming it is in the normal upright position with the footrest fully retracted as shown in FIGURE 2, when the occupant places pressure against the backrest **18** for reclining, backrest links **60** will cause pivoting of seat frame support links **40**, **42** in clockwise direction about pivot pins **44**, **46** to swing seat frame upwardly and forwardly. At the same time prime actuating link **140** will pivot clockwise about pivot **142** to unfold and extend connecting link **150** which in turn will force rear extension mounting link **74** to pivot counterclockwise about pin **82**. This will swing extension link **70** forwardly beyond the front of the chair and will be facilitated by tension spring **160** which constantly imposes its biasing force on mounting link **74**, connecting link **150** and prime actuating link **140** to urge them in the extended forward direction. As forward extension mounting link **72** swings downwardly and forwardly, connecting link **130** will also unfold toward the extended position causing the unfolding of rear L-shaped link **88** and consequently footrest support link **100**. Clockwise movement of front L-shaped link **86** will actuate connecting link **108** which in turn will pivot bracket link **104** counterclockwise about pivot pin **116** until the upper portion **112** of bracket link **104** engages footrest support link **100** at which time the footrest will be in the fully retracted position. This latter movement of the footrest and its immediate support linkage is aided by tension spring **116** which constantly imposes its biasing force on the footrest support linkage to urge them into the extended position. With the chair in reclining position, stop pin **174** on prime actuating linkage will be engaged against the rear end of slot **172**.

Once the footrest and associated linkage is in the fully extended position shown in FIGURES 5 and 9, the occupant may release pressure on backrest **18** to return the chair into the normal, upright position. This will cause seat frame links **40**, **42** to pivot counterclockwise about pivots **44**, **46** to lower and move rearwardly the seat frame **16**. Movement of rear seat frame support **42** in this manner will cause prime actuating link **140** and its connecting link **150** to fold into a generally right angular interrelationship (shown in FIGURE 10) as governed by

engagement of stop pin **174** in the forward end of slot **172**. Thus the footrest will remain in the extended position but will be at a lower level as illustrated in dotted lines in FIGURE 9.

Referring to FIGURES 4 and 5, to retract the footrest, the footrest frame **84** is pivoted clockwise about pin **102** and this will cause L-shaped links **86**, **88** to pivot counterclockwise about pins **90**, **92** whereby footrest support link **100** will begin to retract thus causing connecting link **130** to fold rearwardly. Folding of connecting link **130** will swing front seat support link **72** clockwise downwardly and rearwardly to swing extension link **70** under the chair into the fully retracted position governed by engagement with stop pin **176** on link **74** as shown in FIGURE 2. In this position, stop pin **174** on prime actuating link **140** will be engaged in the rear end of slot **172**.

Tension springs **116**, **160** are chosen to provide an adequate biasing force for extending the footrest but not so as to interfere with retraction of the footrest. Additionally, although not shown, footrest linkage system on each side of the chair may be interconnected by a torque bar or other crosspiece so that they will act in unison.

Modifications and adaptations of the present invention readily apparent from the foregoing description and associated drawings, although not specifically mentioned herein, will nevertheless be included within the scope of the present invention as indicated in the appended claims.

I claim:

1. A linkage for an extendible and retractable footrest and the like comprising in combination; an elongated extension link adapted to be mounted to a chair or the like for movement in generally horizontal planes forwardly and rearwardly of the chair between extended and retracted positions, a footrest support link adapted to support a first footrest section, a pair of links pivotally connected at one of their ends to a forward end portion of the extension link and at their opposite ends to the footrest support link, and a tension spring means anchored at one end with respect to the extension link and connected at the other end to the footrest support link, for biasing said footrest support link in an extended position spaced from said extension link for supporting the footrest in operative position.

2. The linkage defined in claim **1** further including a second footrest support link adapted to support a second footrest section in position adjacent said first footrest section when the footrest sections are in extended positions, said second footrest support link being pivoted intermediate its ends to the opposite end of the first footrest support link, a first connecting link having its opposite ends pivotally connected to one of said pair of links and the second footrest support link, and a stop means on said second footrest support link engageable with the first footrest support link to limit movement of the footrest support links and position them generally in the same plane when in extended position.

3. The linkage defined in claim **2** wherein said second footrest support link is in the form of a bracket including a flange portion engageable with said first footrest support link to thereby form said stop means.

4. The linkage defined in claim **1** wherein said pair of links each have a generally L-shape and are in generally parallel interrelationship.

5. The linkage assembly defined in claim **4** wherein said pair of links include arm portions projecting at an angle to each other and wherein said connecting link is pivoted to one of said pair of links at the juncture between said arm portions thereof.

6. The linkage defined in claim **1** further including an anchor link rigidly fixed to said extension link and having a portioin projecting generally therefrom and wherein said tension spring is anchored to the laterally projecting portion of said anchor link.

7. The linkage defined in claim **1** further including a mounting link adapted to be swingably connected to the

chair, said mounting link being pivotally connected to the exension link at a point intermediate the ends of said extension link, and a second connecting link having one end pivotally connected to said mounting link and the opposite end pivotally connected to one of said pairs of links.

8. The linkage defined in claim **7** wherein said first connecting link is pivotally connected to one of said pair of links and said second connecting link is pivotally connected to the other of said pairs of links.

9. The linkage defined in claim **7** further including a second mounting link adapted to be pivotally connected with respect to a chair, said second mounting link being pivotally connected to said extension link, a third connecting link having one end pivotally connected to said second mounting link, and a prime actuating link pivotally connected to said third connecting link and adapted to be operatively connected to a positionable recliner chair such that movement of the recliner chair into reclining position will actuate said prime actuating link to move said third connecting link and second mounting link to project said extension link into extended position.

10. The linkage defined in claim **9** further including a tension spring means having one end connected with respect to said second mounting link to bias said second mounting link in one rotative direction for projecting the extension link.

11. The linkage defined in claim **2** wherein said pair of links, said connecting link and said footrest support links are dimensioned and connected such that in one folded position of said pair of links relative to said extension link said second footrest support link will extend generally at right angles relative to said first footrest support link.

12. A position chair including in combination, a base, a seat frame, first linkage means including a support link for swingably mounting said seat frame to said base for movement generally vertically and horizontally relative to said base, a footrest, second linkage means for mounting said footrest to said chair for movement between an extended position projected forwardly from the chair and a retracted position extending generally in a vertical plane at the front of the chair, said second linkage means including an elongated extension link, a pair of mounting links swingably mounting said extension link to said chair frame for movement between an extended position projected forwardly from the chair and a retracted position under the chair, a footrest support link, a second pair of links pivotally interconnecting said footrest support link and an end portion of said extension link, and a link having its opposite ends pivotally connected to one of said second pair of links and one of said mounting links to actuate said second pair of links to move and extend the footrest support link and consequently said footrest when said extension link is projected forwardly.

13. The combination defined in claim **12** further including linkage for interconnecting one of said seat frame support links to one of said mounting links to actuate said one mounting link to extend said extension link when said seat frame support links are moved to raise and forwardly position the seat frame.

14. The combination defined in claim **13** wherein said last recited linkage includes a prime actuator link operatively connected to said one frame support link to be operated thereby, and a connecting link having its opposite ends pivotally connected to said prime actuating link and to said mounting link to transmit motion from said prime actuating link to said mounting link for projecting said extension link and said footrest.

15. The combination defined in claim **14** further including a second footrest support link pivotally interconnected intermediate its ends to the adjacent end of said first footrest support link, another connecting link pivotally connected at its opposite ends to said second footrest support link and one of said second pairs of links.

16. The combination defined in claim **15** further including a tension spring anchored with respect to the extension link at one end and operatively connected to the other end of said first footrest support link to bias said footrest support links in generally coplanar positions.

17. The combination defined in claim **16** further including tension spring means for biasing the mounting links forwardly for projecting the extension link and said footrest.

18. Linkage for an extendible and retractable footrest and the like comprising in combination; an elongated extension link adapted to be mounted to a chair or the like for movement forwardly and rearwardly of the chair between extended and retracted positions, a footrest support link adapted to support a first footrest section, a third link pivotally connected at its opposite ends to a forward position of the extension link and to the footrest support link so that said footrest support link is pivotable relative to the extension link between raised and lowered positions spaced generally along the longitudinal direction of the extension link, a second footrest support link adapted to support a second footrest section, said second footrest support link being pivotally connected intermediate its ends to one end of said first footrest support link, and a connecting link pivotally connected at opposite portions thereof to said second footrest support link and to said third link.

19. The linkage defined in claim **18** further including a sixth link having one end pivotally connected to said extension link and an opposite end pivotally connected generally at the opposite end of said first footrest support link.

20. The linkage defined in claim **19** further including a second connecting link having one end pivotally connected to intermediate portions of said fifth link for actuating said fifth link to raise and extend said first footrest support link relative to said extension link to ultimately cause said first and second footrest support links to be positioned in continuous relationship.

21. The linkage defined in claim **20** further including a mounting link pivotally connected to said extension link and adapted to be pivotally connected with respect to a chair for mounting the extension link for swinging movement forwardly nad rearwardly generally in its longitudinal direction, said second connecting link being pivotally connected at its other end to said extension mounting link to be actuated thereby when the extension link is moved forwardly by the mounting link.

22. The linkage defined in claim **21** further including a spring means having one end anchored with respect to said extension link and another end fixed to said first footrest support link for biasing said first and second footrest support links in extended and generally continuous relationship.

23. A reclining chair including in combination; a base, a seat frame, first linkage means including a support link mounting said seat frame to said base for swinging movement generally relative to said base between normal and reclining portions, a footrest, second linkage means for supporting the footrest between an extended position projecting forwardly from the chair and a retracted position, said second linkage means including an elongated extension link, a mounting link having one end pivotally connected to said seat frame and the other end pivotally connected to said extension link for moving the extension link forwardly and rearwardly of the chair in generally horizontal planes between extended and retracted positions, a footrest link having one end pivotally connected generally at the forward end of said extension link and another end pivotally connected with respect to said footrest for extending and retracting the footrest relative to said extension link, and means for moving said footrest link relative to said extension link into extended position for positioning the footrest when said extension link is moved forwardly by means of said mounting link.

24. The chair defined in claim **23** further including a

third linkage operatively interconnecting said support link and said mounting link to actuate said mounting link to extend said extension link when the seat frame is moved into a reclining position.

25. The chair defined in claim **24** wherein said second linkage means further includes a second mounting link having one end pivotally connected with respect to the seat frame and opposite end pivotally connected to said extension link at a point intermediate the ends thereof, and wherein said means for moving said footrest link relative to said extension link includes a link having one end connected to said second mounting link and opposite end connected to said footrest link.

26. A position chair including in combination, a base, a seat frame, and a backrest pivotally connected with respect to the seat frame, a first linkage including a first support link mounting said seat frame to said base for swinging movement generally relative to said base between normal and reclining positions, a footrest, linkage means for supporting the footrest between an extended position projecting forwardly from the chair and a retracted position extending generally vertically at the front of the chair, said footrest linkage means including an elongated extension link movable forwardly and rearwardly below the chair for extending and retracting the footrest, linkage means operatively connecting said seat frame linkage to said extension link for moving the extension link in extended position, said footrest linkage including a mounting link pivotally connected to said seat frame and said extension link, said last recited linkage including a prime actuating link operatively connected between said first support link and said mounting link to actuate said mounting link in one direction to project said extension link for extending the footrest when said support link moves to place the seat frame in the reclining position, tension spring means biasing said mounting link in said one direction, and stop means including a stop link pivotally connected with respect to the chair frame and having an elongated slot, and a stop pin fixed to said prime actuating link and received in said slot.

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CASMIR A. NUNBERG, *Primary Examiner.*