July 2, 1963 E. M. KNABUSCH ETAL 3,096,121

RECLINING PLATFORM ROCKING CHAIR

Filed July 21, 1961 7 Sheets-Sheet 1

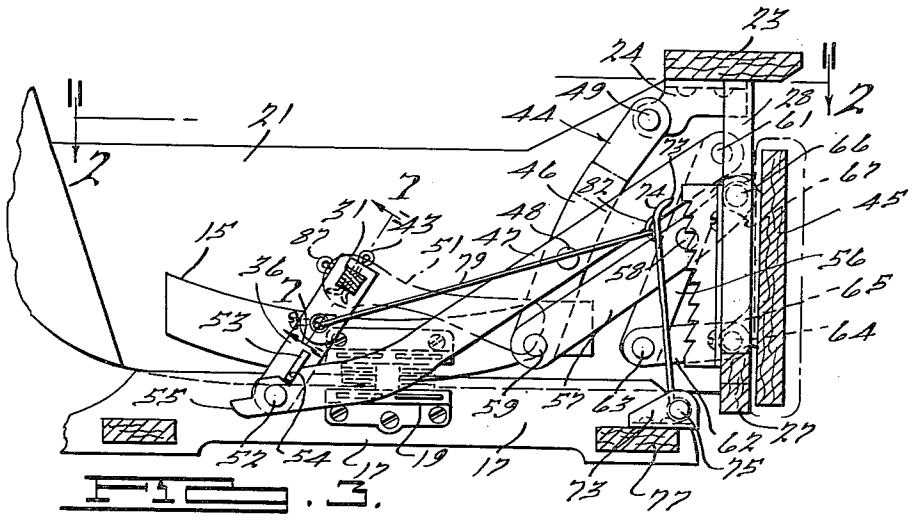


FIG. 3.

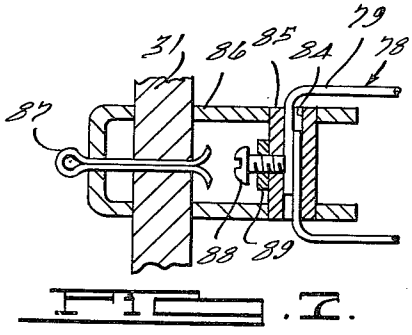


FIG. 2.

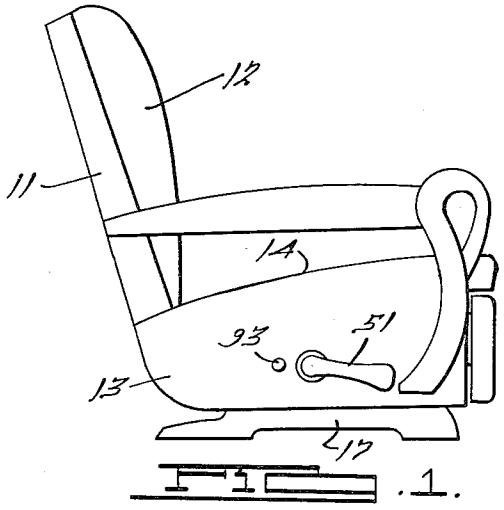


FIG. 1.

INVENTORS.
Edward M. Knabusch.
Edwin J. Shoemaker.
BY
Barnes, Dicky & Pierce.
ATTORNEYS.

July 2, 1963 E. M. KNABUSCH ETAL 3,096,121

RECLINING PLATFORM ROCKING CHAIR

Filed July 21, 1961 7 Sheets-Sheet 2

Fig. 2.

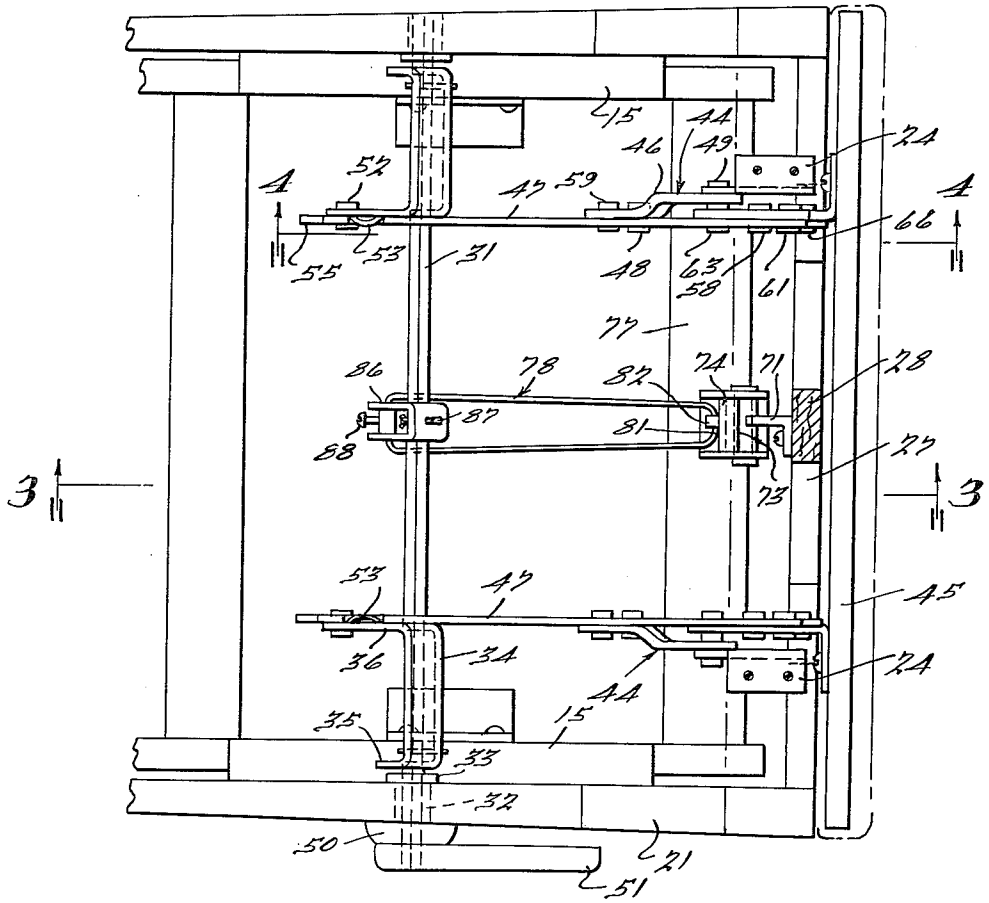
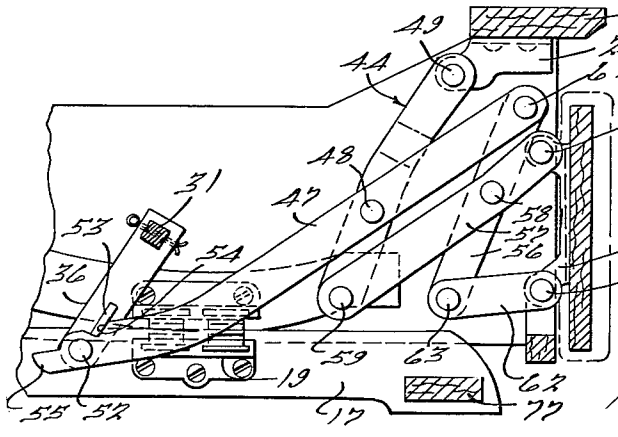


Fig. 4.

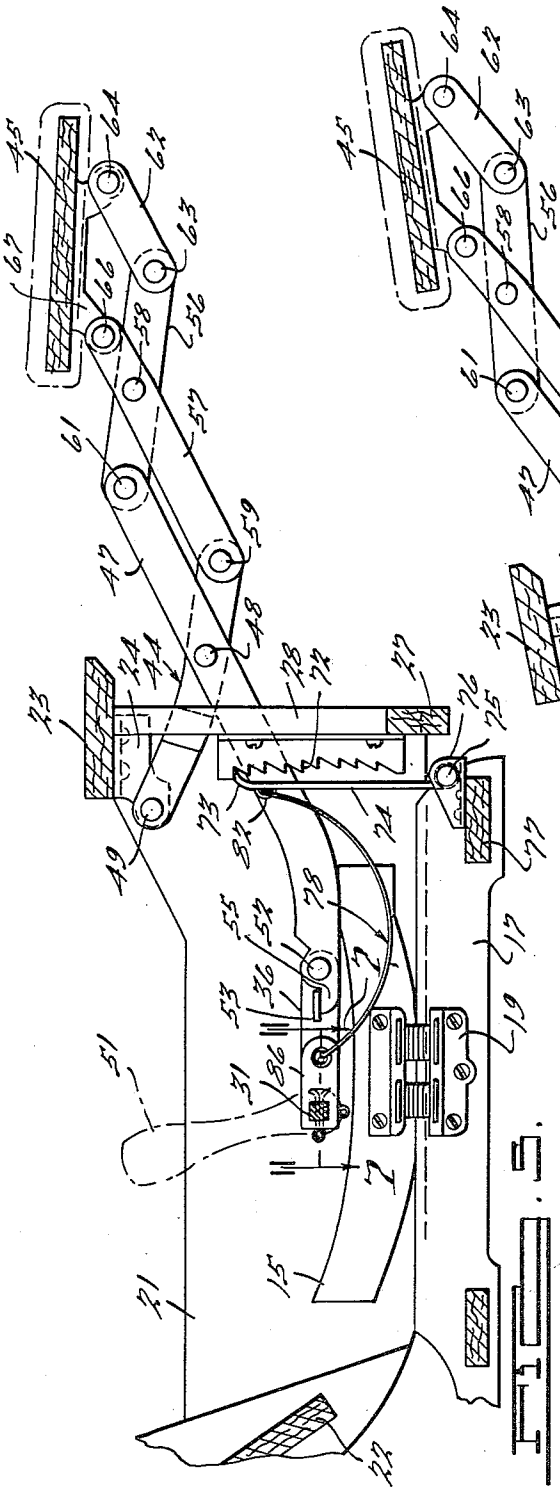


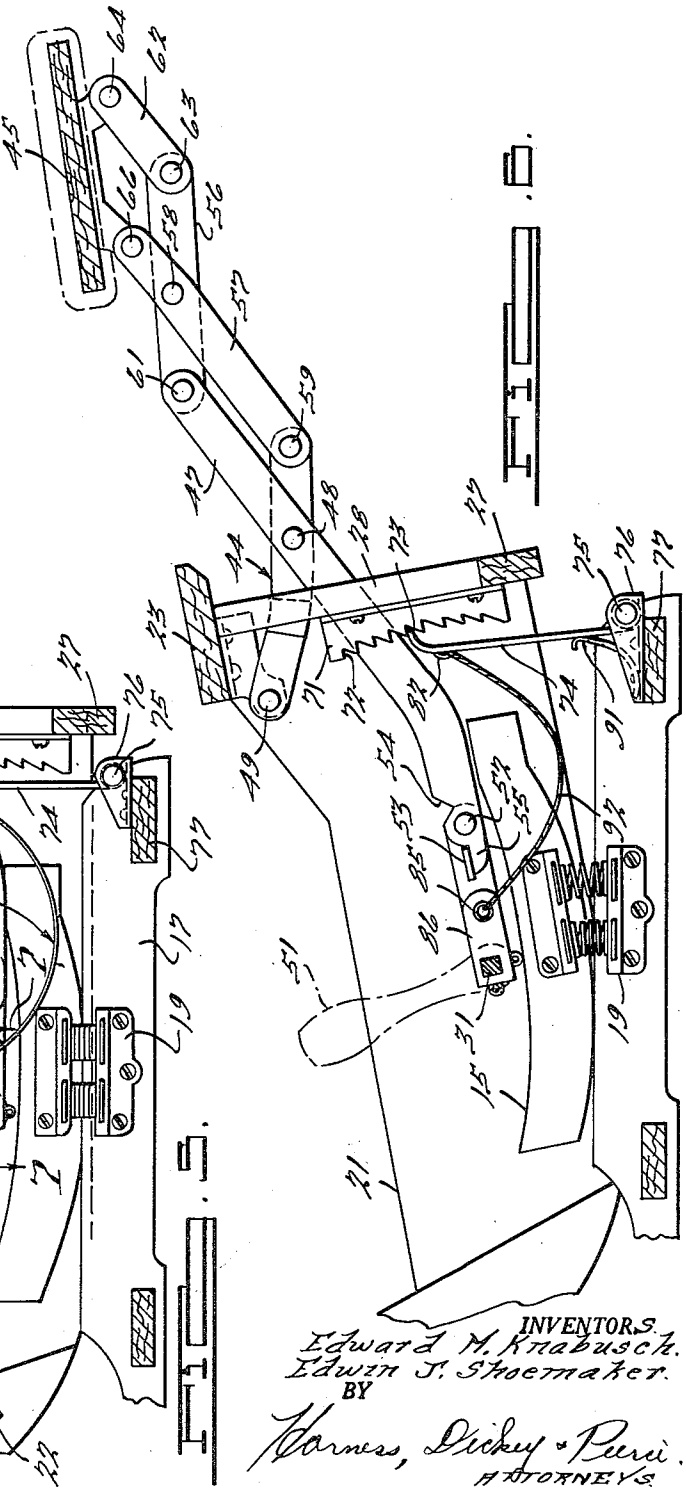
INVENTORS.
Edward M. Knabusch.
Edwin J. Shoemaker.
BY
Harness, Dickey & Pierce.
ATTORNEYS.

July 2, 1963 E. M. KNABUSCH ETAL 3,096,121

RECLINING PLATFORM ROCKING CHAIR

Filed July 21, 1961 7 Sheets-Sheet 3





INVENTORS.
Edward M. Knabusch.
Edwin J. Shoemaker.
BY
Harness, Dickey & Pierce.
ATTORNEYS.

July 2, 1963 E. M. KNABUSCH ETAL 3,096,121

RECLINING PLATFORM ROCKING CHAIR

Filed July 21, 1961 7 Sheets-Sheet 4

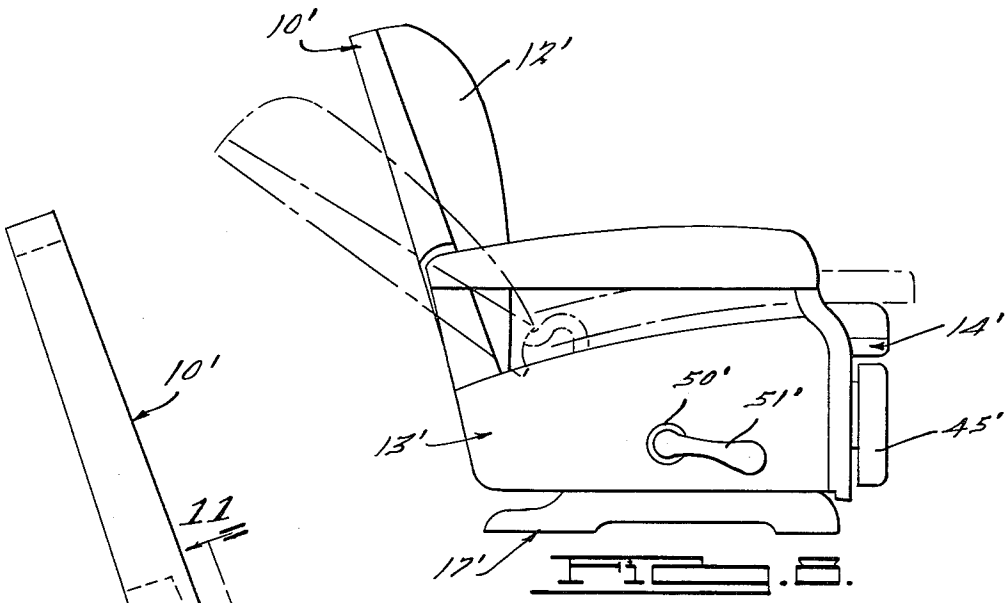


FIG. 8.

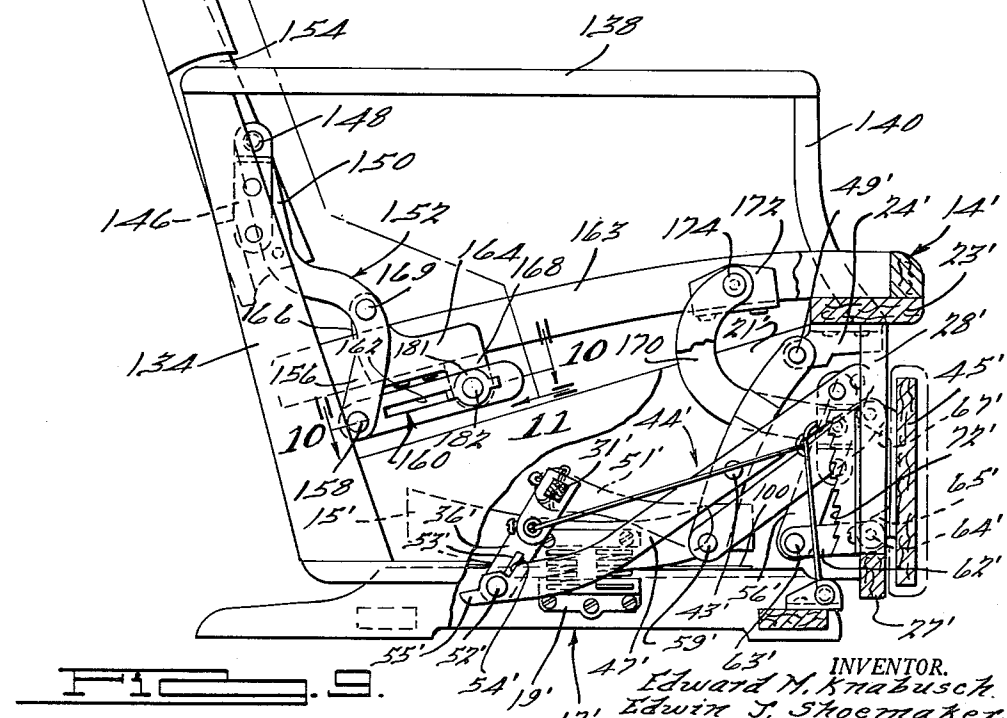


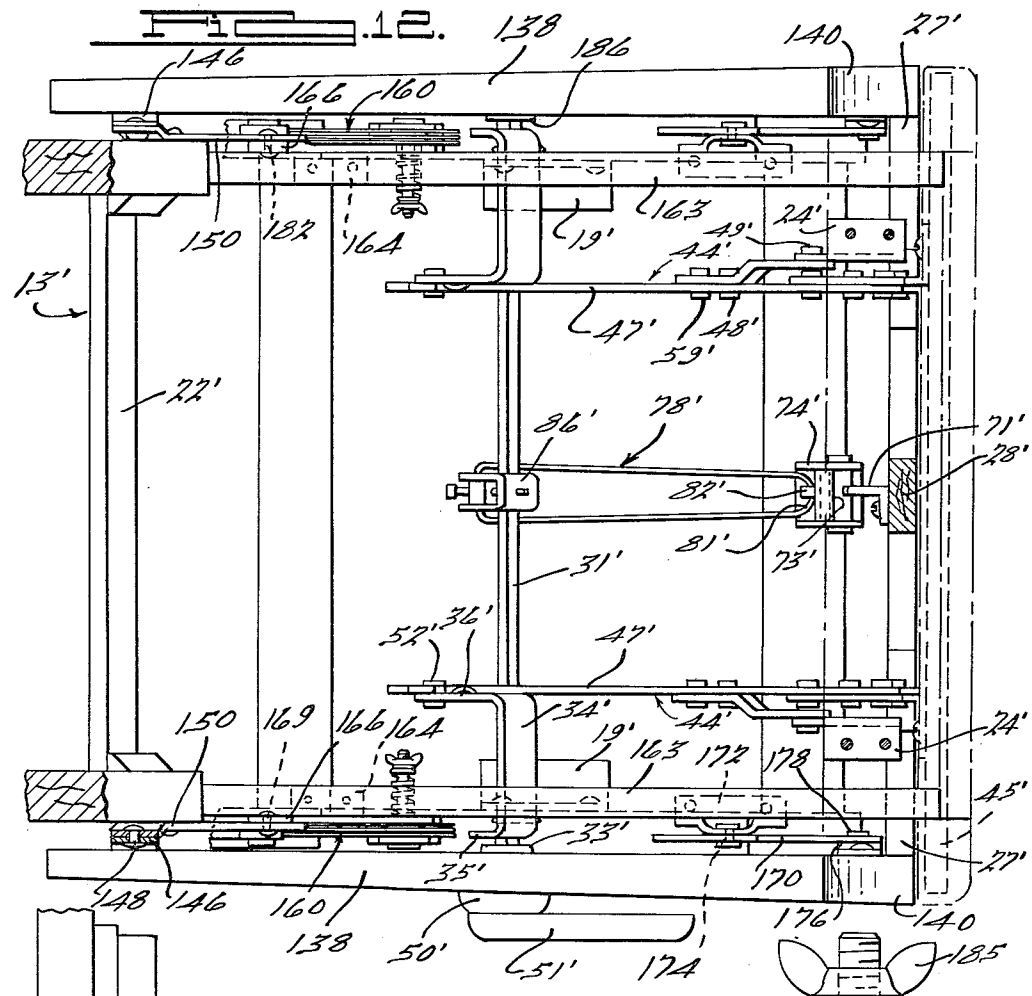
FIG. 9.

INVENTOR.
Edward M. Knabusch
Edwin J. Shoemaker
BY
Harness, Dickey & Pierce.
ATTORNEYS

July 2, 1963 E. M. KNABUSCH ETAL 3,096,121

RECLINING PLATFORM ROCKING CHAIR

Filed July 21, 1961 7 Sheets-Sheet 5



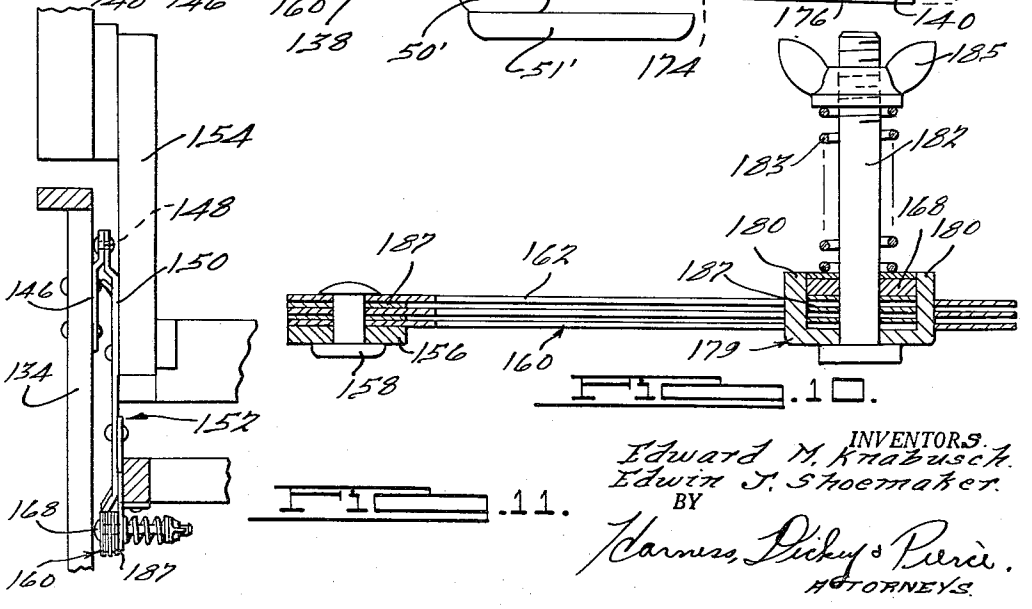


FIG. 12.

FIG. 10.

FIG. 11.

INVENTORS.
Edward M. Knabusch
Edwin J. Shoemaker
BY
Harness, Dickey & Pierce.
ATTORNEYS.

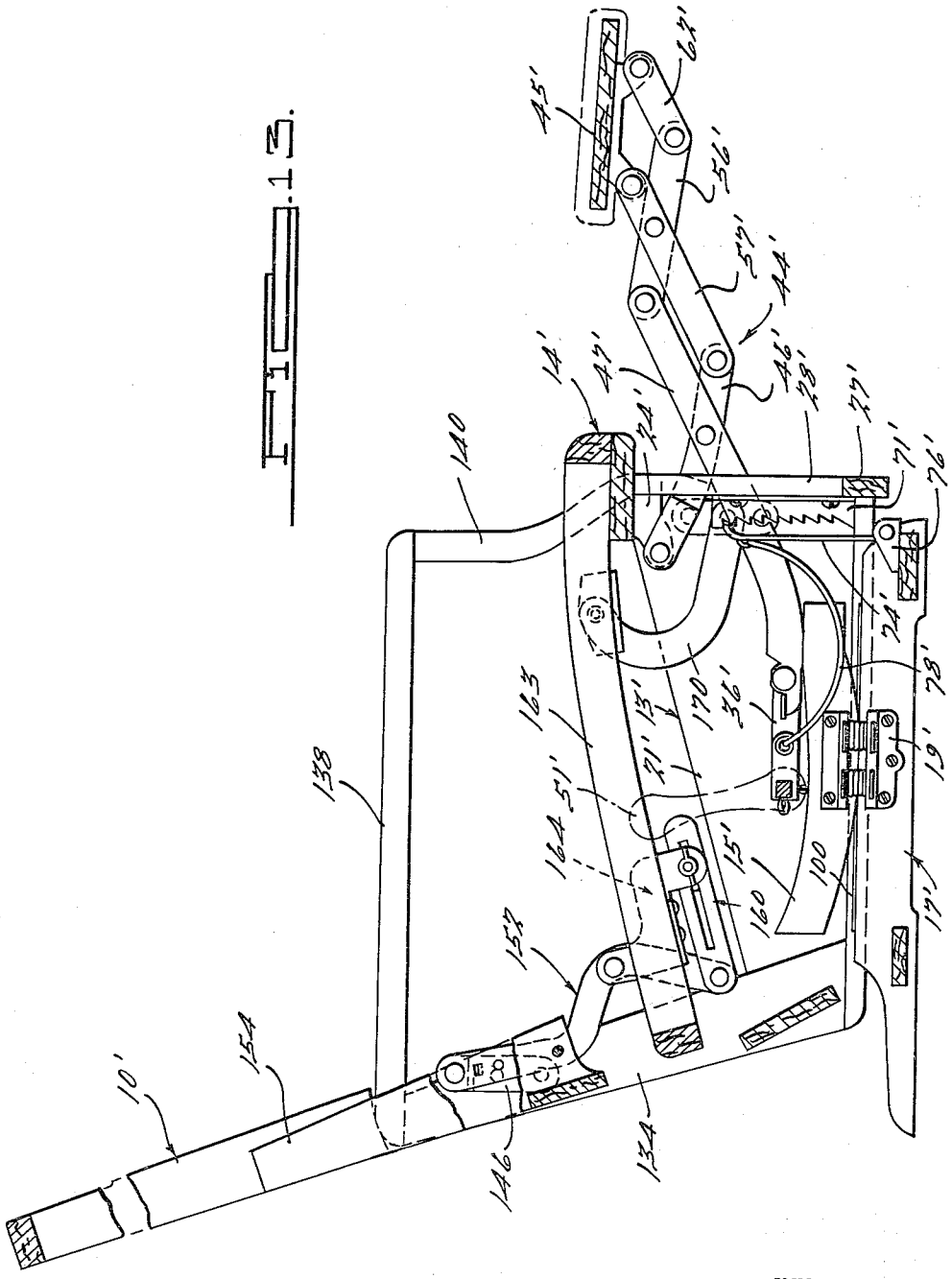
July 2, 1963 E. M. KNABUSCH ETAL 3,096,121

RECLINING PLATFORM ROCKING CHAIR

Filed July 21, 1961

7 Sheets-Sheet 6

FIG. 1



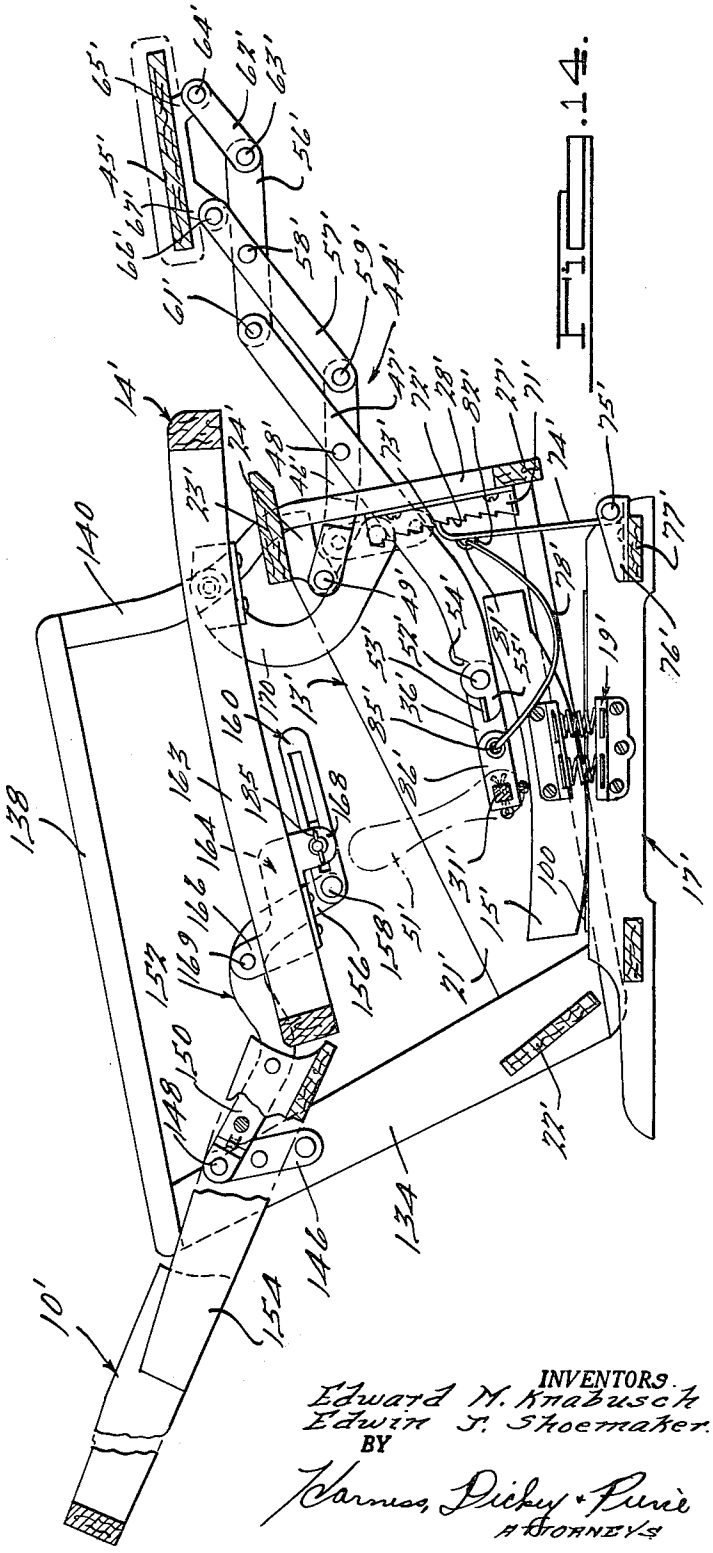
INVENTORS.
Edward M. Knabusch.
Edwin T. Shoemaker.
BY
Harness, Dickey & Pierce.
ATTORNEYS.

July 2, 1963 E. M. KNABUSCH ETAL 3,096,121

RECLINING PLATFORM ROCKING CHAIR

Filed July 21, 1961 7 Sheets-Sheet 7

FIG. 14.



INVENTORS
Edward M. Knabusch
Edwin J. Shoemaker.
BY
Harness, Dickey & Pierce
ATTORNEYS

United States Patent Office

3,096,121

Patented July 2, 1963

3,096,121

RECLINING PLATFORM ROCKING CHAIR

Edward M. Knabusch and Edwin J. Shoemaker, Monroe, Mich., assignors to La-Z-Boy Chair Company, a corporation of Michigan

Filed July 21, 1961, Ser. No. 125,874

19 Claims. (Cl. 297—269)

This invention relates to an improved combination reclining and platform rocking chair and more particularly to such an improved combination chair having an extensible footrest and latching means for retaining the rocking chair in a predetermined tilted position. This application is a continuation-in-part of our copending application Serial No. 68,486, filed November 10, 1960, for Platform Rocker, now abandoned.

Platform rockers of the type having rigidly interconnected seat and back portions rockable on a base have been on the market for several years. Such rockers often include an actuatable footrest and means for releasably retaining the seat and back portions in predetermined rocked positions on the base thereby enabling the rocker to function as a tilt-back type lounge chair until the retaining mechanism is released and the footrest is moved to an inactive position. The latter type chairs are illustrated in applicants' prior Patents Nos. 2,817,385, dated December 24, 1957, and 2,963,077, dated December 6, 1960. Such chairs are not, however, reclinable, that is, the seat and back do not move relative to each other to provide a comfortable reclining surface.

Another group of adjustable chairs, designated as reclining chairs, likewise have been sold for a number of years. These chairs have seat and back portions which are pivotally supported on a base and counterbalanced so that when a user leans rearwardly in the chair he moves the chair back downwardly and rearwardly and the chair seat forwardly, simultaneously, into a reclining position. Such chairs are representatively illustrated in the prior Patents 2,863,495, dated December 9, 1958, and 2,781,823, dated February 19, 1957 of E. M. Knabusch et al. The chair back and seat of this type of reclining chair move relative to one another to produce a generally continuously reclined surface. A relatively complex and expensive linkage system is required to obtain this movement and provide a comfortable chair. Such a chair is not rockable into preselected tilted positions with respect to the base portion.

The present invention includes a unique combination reclining and platform rocking chair which can be used as a conventional rocker or as a reclining chair having back and seat portions reclinable on a relatively inexpensive balanced linkage system having a fixed pivot axis between the back and seat portions. Normal rocking movement will cause the chair to rock on a fixed base in a conventional manner without causing the back and seat portions to recline. The application discloses an operating handle which moves a unique one-way lock mechanism to releasably hold the chair in a plurality of tilted positions against movement in a given direction. When the chair engages the one-way lock mechanism a supplemental force on the back portion will cause the chair to conjointly tilt and recline to a comfortable reclined position.

The unique one-way locking mechanism is an improvement of the structure disclosed in the copending application of E. M. Knabusch et al., Serial No. 805,429, filed April 10, 1959, now Patent No. 2,963,077, dated December 6, 1960, for Platform Rocker. The present invention, therefore, further includes an operating handle which extends and retracts a footrest mounted below the front end of the chair seat. The handle is also connected to a latch mechanism which engages a ratchet and locks the chair in backwardly tilted positions. The latch is retracted through the movement of the handle to its forward position which also retracts the footrest. The footrest may also be retracted by the heel of the occupant.

Accordingly, main objects of the invention are to provide a platform rocking chair having an extensible footrest and locking means to prevent the chair from rocking forwardly when the footrest is extended; to provide means for extending a footrest of a tiltable rocking chair forwardly and employing a latch mechanism which releases the chair from a backward tilted position and retracts the footrest to prevent the chair from falling forwardly should the foot remain extended; to provide a rocker of the platform type which employs lazy tongs for supporting and moving a footrest from a retracted to an extended position actuated by a handle which also releases a locking mechanism for retaining the chair in backward tilted position to prevent the chair from falling forwardly should the footrest remain extended and, in general, to provide a platform rocking chair with an extensible footrest and latching mechanism which is simple in construction, positive in operation, and economical of manufacture.

Other main objects of this invention are to provide a chair which functions as both a platform rocking chair and a reclining lounge chair and in which the seat and back portions are movable relative to each other and are conjointly tilted with respect to the base to provide a comfortable reclining surface through a plurality of tilted positions; and to provide an improved chair of the aforementioned type in which the back and seat portions are adjustably movable on an improved and relatively inexpensive linkage system.

Further objects of the invention are to increase the seating comfort of a chair of the aforesaid type while maintaining ease of adjustment, simplicity of component arrangement and economy of construction; to provide an improved chair of the aforesaid type having a support frame rockable on a base frame with back and seat portions reclinable and movable with respect to the support frame to produce a substantially obtuse angular relationship between the back and seat portions thereby providing for a more comfortable chair than has been heretofore known or available; to provide a chair of the aforementioned type which is so constructed and balanced that when it is used as a rocking chair it will not tend to recline, but which is quickly reclined when desired; and to provide an improved chair of the aforesaid type having a reclining back and a forwardly moving seat which are interconnected by an easily adjusted, compact, economical balanced linkage for varying the force required to recline the back and seat; to provide such a balanced linkage pivoted on a fixed axis to obtain a movement of the seat and back portions of the improved combination chair which is adapted to a plurality of different chair styles; and to provide means for cushioning the rocking of the chair on the base portion to provide a smooth, uninterrupted rocking movement.

Further objects, features and advantages of this invention will become apparent from a consideration of the following description, the appended claims and the accompanying drawings in which:

FIGURE 1 is a side view in elevation of a platform rocking chair having a footrest and operating mechanism therefor, embodying features of the present invention;

FIG. 2 is an enlarged, broken plan view of the seat frame of the chair illustrated in FIG. 1;

FIG. 3 is a sectional view of the structure illustrated in FIG. 2, taken on the line 3—3 thereof, showing the

footrest in its retracted position and the rocker in horizontal position;

FIG. 4 is a sectional view of the structure illustrated in FIG. 2, taken on the line 4—4 thereof;

FIG. 5 is a view of the structure illustrated in FIG. 3, showing the chair in latched position and the footrest in extended position;

FIG. 6 is a view of the structure illustrated in FIG. 5, with the chair in tilted position;

FIG. 7 is an enlarged sectional view of the structure illustrated in FIG. 3, taken on the line 7—7 thereof;

FIG. 8 is a side elevation of modification of the chair illustrated in FIGS. 1–7 which includes a reclining platform rocking chair having a reclinable back and seat and an adjustable footrest;

FIG. 9 is a view partially in section and partially in elevation of the reclining platform rocking chair illustrated in FIG. 1 without cushions;

FIG. 10 is an enlarged sectional view taken along the line 10—10 of FIG. 9, looking in the direction of the arrows;

FIG. 11 is a sectional view taken on the line 11—11 of FIG. 9, looking in the direction of the arrows;

FIG. 12 is an enlarged, broken plan view of the seat frame of the chair illustrated in FIG. 8;

FIG. 13 is a vertical sectional view of the chair illustrated in FIGS. 8–12 with its back upright, the seat moved rearwardly and the footrest extended prior to reclining; and

FIG. 14 is a vertical sectional view similar to FIG. 13 with the seat frame locked in a tilted position and the seat and back portions in reclined positions.

The embodiment of the present invention illustrated in FIGS.1–7, comprises a back frame portion 11 containing a back cushion 12 fixed with respect to a seat frame 13 having a resiliently supported seat cushion 14 thereon. The seat frame has rockers 15 on the inner side faces thereof which engage the surface of a base supporting frame 17 in rockable relation therewith. The rockers 15 and the side members of the base 17 are interconnected by double coil spring devices 19 of conventional form and in the conventional manner. The rockers 15 are attached to the side frame members 21 which are joined at the rear by a rear rail 22 and at the front by a front rail 23. The side members are further interconnected by a bar 27 having members 28 interconnected with the horizontal cross member 23.

An actuating shaft 31 of square section is disposed across the side members 21, being supported at the ends in bushings 32 having flanged heads 33 on the inner faces. U-shaped links 34, having openings in the arm portions 35 and 36, are disposed over the shaft 31. The arm portion 36 has a square opening which snugly fits the shaft and a stop tab 53 struck outwardly to form a stop abutment. The footrest 45 is moved from a vertical position, as illustrated in FIG. 3, to a substantially horizontal extended position, as illustrated in FIGS. 5 and 6, by a pair of spaced pantograph mechanisms 44. The pantograph mechanism embodies a first pair of links 46 and 47 secured in scissor-relation by a pivot 48. The upper end of the link 46 is secured to the bracket 24 by a pivot 49. The rear end of the link 47 is secured by a pivot 52 to the arm portion 36 containing the stop tab 53 which engages the forward surface of a clearance notch 54 disposed in the rear end of the link 47 when the footrest is in retracted position, as illustrated in FIG. 3. The tab 53 engages a surface of an extending finger 55 at the end of the link 47 when the footrest is in the extended horizontal position, as illustrated in FIGS. 5 and 6. The relationship is such that the arrangement of the shaft 31 and pivot 52 is in, on or over toggle relationship so as to lock the footrest in the extended horizontal position. An operating arm 51 secured to the outer end of the cross shaft 31 moves slightly more than 90°, as illustrated in FIGS. 3 and 5, to produce the movement of the arm portion 36 from the position illustrated in FIG. 3 to the extended position as illustrated in FIGS. 5 and 6. A trim collar 50 may be provided between the outer face of the side rail 21 and the operating handle 51, as illustrated in FIG. 2.

A second set of links 56 and 57 are disposed in scissor-relation when secured together by a pivot 58, the upper end of the link 56 being connected to the forward end of a link 47 by a pivot 61. The rearward end of the link 57 is connected to the lower end of the link 46 by a pivot 59. The lower end of the link 56 is connected to a link 62 by a pivot 63. The forward end of the link 62 is connected by a pivot 64 to a bracket 65 on the rear face of the footrest 45. The forward end of the link 57 is connected by a pivot 66 to a bracket 67 at the rear face of the footrest 45 near the upper edge thereof. The lengths of the various links on either side of the pivots are such as to produce the desired movement of the footrest 45 from the vertical retracted position of FIG. 3 to the horizontal extended position illustrated in FIGS. 5 and 6. The operation of the links for so moving the footrest has been explained in more detail in the above mentioned copending application and will not be described further herein.

One of the main concepts of the present invention embodies the manner in which the chair is locked in rearward tilted position and released from such locked position through the operation of the handle 51 which may or may not retract the footrest. The footrest can be releasd and retracted by the heel of the occupant applying a rearward pressure, pulling the footrest toward him. Referring more specifically to FIGS. 3 and 4 an angle-shaped bracket 71 is secured to the upright 28 disposed between the front rail 23 and the bottom bar 27. The outwardly extending flange of the angle member 71 contains a plurality of teeth 72 in one of which the chisel-shaped end 73 of a latching bar 74 extends to prevent the forward rocking of the rocker portion of the chair. The latching bar 74 has a hinged bottom end constructed from a cylindrical portion which is secured by a pivot 75 to a bracket 76 attached to a cross member 77 between the side elements of the rocker base 17.

A rectangular element 78 made of spring wire 79, as illustrated more specifically in FIG. 7 has the forward web 81 secured in a struck-out loop 82 from the latching bar 74. The opposite ends of the wire are overlapped in an aperture 84 of a bushing 85 which is disposed through apertures in the sides of a channel element 86. The sides also have square apertures therein which receive the square cross shaft 31 to which they are secured by a cotter pin 87, as clearly illustrated in FIG. 7. A screw 88 clamps the overlapped ends of the wire 79 in secured relation, which screw may or may not be locked in position by a nut 89 in the conventional manner.

When the handle is moved in a forward direction to the position as illustrated in FIGS. 1 and 3, the wire element 78 is moved rearwardly to pivot the latching bar 74 to the rear with the chiseled end 73 withdrawn from a notch 72 in the latching bracket 71. When the handle is moved in a rearward direction, the footrest is raised to the horizontal forwardly extending position illustrated in FIG. 5 and the channel element 86 moves the rear end of the wire element 78 forwardly into bowed shape and pivots the latching bar 74 clockwise to advance the end 73 into engagement with a notch 72 of the latching bracket 71. If it is desired to tilt the rocker portion of the chair rearwardly, the chiseled end 73 of the bar 74 will ratchet over the teeth, forming the notches 72, until the proper degree of tilt has been reached. The rocking portion of the chair is prevented from returning to its forward position through the engagement of the chiseled end 73 of the latching bar 74 with the adjacent notch 72, as illustrated in FIG. 6. The one-way locking action of the latching bar 74 and bracket 61 are especially suited for use in the

improved reclining and rocking chair embodiment subsequently described.

When it is desired to lower the rocker portion of the chair to its horizontal position from a tilted position, the handle **51** is moved forwardly to the position illustrated in FIGS. 1 and 3 to produce a pull on the spring wire element **78** which thereby withdraws the chiseled end **73** of the latching bar **74** from the notch **72** and retracts the footrest while permitting the rocker portion of the chair to assume its horizontal position. As pointed out above, the footrest can also be released by the occupant pulling the footrest toward him with his heel. This breaks the toggle lock between the stop tab **53** and finger **55**, allowing the footrest to return to fully retracted position. This action rotates the shaft **31** and moves the arm **86** to retract the latching bar **74** and unlock the chair for rocking action. The very first movement of the shaft **31** in the opposite direction releases the latching bar **74** and permits the chair to become latched in any desired position without any substantial movement of the footrest from retracted position.

In FIG. 6, a further form of the invention is illustrated, that wherein a leaf spring **91** is secured to the rearward end of the bracket **76** in a manner to have an upwardly extending portion engage the latching bar **74** and apply a clockwise force thereto to move the end **73** thereof into engagement with a notch **72** of the latching element **71**. A chain, cord, wire or other element **92** is connected between the bushing **85** and the struck-out portion **82** of the latching bar **74** which is effective only in the forward position of the handle **51** to control the latching bar **74** and move the chiseled end **73** from a notch **72** in the latching bracket **71**. It is to be understood that it is within the purview of the present invention to have the cord pass around a pulley or other element and extend from the side of the chair adjacent to the handle **51** so that it may be pulled to release the latch, to thereby permit the chair to move from a tilted to a horizontal position without disturbing the position of the footrest **45**. A knob on the end of such cord is illustrated at **93** in FIG. 1.

In the embodiment of the invention of FIGS. 8–14, an improved reclining and platform rocking chair is illustrated. This embodiment has a back portion **10'** covered by a back cushion **12'**, pivotally connected to a seat portion **14'**. The pivotal interconnection between the back portion **10'** and the seat portion **14'** provides an improved reclining movement with respect to a seat support frame portion **13'** in a manner to be discussed.

The seat frame **13'** is connected in a rockable relationship with a base supporting frame **17'** by a pair of oppositely disposed rockers **15'** carried on the inner side faces of oppositely disposed side frames **21'** of the seat frame portion **13'**. Each rocker **15'** is interconnected to the base frame **17'** by a double coil spring device **19'** of conventional form. The sides of the chair are interconnected by a forwardly located rail **23'** and by a rearwardly located rail **22'** to provide a preselected rigidity therein. Small imperfections in the engaging surfaces of the rockers and the base frame may cause a noticeable unevenness in the rocking movement of the chair. This can be eliminated by providing a layer of cushion material **100** between each of the rockers **15'** and the side members of the base frame **17'**. The cushion material may be laminated to either the bottom surface of the rocker **15'** or to the top surface of the side members of the base frame **17'**. The layer of cushion material **100** which may be, for example, felt hair or a yieldable plastic, allows a smooth rocking motion by covering the imperfections in the rocking surface of the rockers **15'**. Polyethylene strips of $\frac{1}{32}$" thickness have proven highly satisfactory in this connection.

A back support frame portion has a pair of oppositely disposed upright members **134** which connect at the rearward end of each of the side frames **21'**. At the upper end of each of the members **134**, an armrest **138** projects forwardly to the front portion of the chair. Each armrest **138** has a downwardly depending portion **140** fastened to the cross member **27'** which braces the side frames **21'** at the forward portion of the chair.

The upper end portion **150** of a bellcrank-like link **152** is connected by a pivot pin **148** to a bracket **146** fastened by suitable means on the inner face of each upright member **134**. The upper end portion **150** of each bellcrank-like link also is rigidly fastened to the outer face of a side **154** of the back portion **10'**. Each bellcrank link **152** has a downwardly depending offset end portion **156** which carries a pivot pin **158** that supports a multiple leafed arm generally designated **160** having a groove **162**.

Each side **163** of the seat portion **14'** carries a bracket **164** having an upper ear portion **166** and a downwardly depending ear potrion **168**. A pivot pin **169** connects the upper ear portion **166** to the mid-portion of the bellcrank **152**. The downwardly depending ear portion **168** is slidingly connected to the multiple leafed arm **160** in a manner to be described.

Each side of the forward portion of the seat **14'** has a U-shaped link **170** pivotally fastened thereto by a bracket **172** and a pivot pin **174**. The lower portion of each U-shaped link **170** is pivotally fastened to a bracket **176** carried on each of the side frames **21'** by a pivot pin **178**. The link **170** causes the seat **14'** to move forwardly when the back **10'** is reclined for purposes to be discussed.

The interconnection between the downwardly depending ear portion **168** and the multiple leafed arm **160** is best illustrated in FIG. 10. It comprises a clamp element **179** having inwardly extending arms **180** slidingly carried by the groove **162** in the multiple leafed arm **160** and an outwardly extending peripheral portion **181** having a diameter greater than the depth of the groove **162** to prevent the element **179** slipping therethrough. A conventional threaded stud **182** extends through the element **179** and the ear portion **168**. A compression spring **183** concentrically disposed about the stud **182** holds the ear portion **168** in abutting engagement with the arm **160**. The stud **182** threadingly receives a wing-nut **185** which is movable with respect to the multiple leafed arm **160** for adjusting the force between the downwardly depending ear portion **168** and the arm **160**. Friction spacers **187** are concentrically disposed about the pivot pin **158** and stud **182** between each leaf of the arm **160**, so that by adjusting the nut **185** the force required to recline the chair can be varied.

The link **152** which pivotally interconnects seat portions **10'**, **14'** is fixed relative thereto on the fixed pivot axis defined by the pivot pin **169**. Thus, as the back **10'** is reclined and the seat **14'** moves forwardly on the link **170** the back **10'** and seat **14'** pivot with respect to each other about the pivot pin **169** fixed on the seat **14'**. It has been found that such movement enables a wide variety of chair styles to be adapted to the basic chair frame and permits more styling latitude than is possible in reclining chairs where the back and seat pivot about a floating parallelogram type linkage system.

The chair is balanced so that during normal rocking the chair will not recline, but will recline easily when, as desired, the user applies rearward pressure with his shoulders against the upper portion of the chair back. The additional force exerted on the back portion **10'** of the chair quickly reclines the back and seat portions **10'**, **14'** with respect to the seat-supporting frame portion **13'**.

It has been found that by reclining the back and seat portions **10'**, **14'** of the novel chair, a person can assume a more comfortable position than would be possible if the chair was merely to be rocked into a preselected position and then locked so that the back and seat portions were no longer in a fixed upright position but were still substantially perpendicular to each other. Thus, such chairs only tilt back and do not recline as does the chair of this invention where, when the back **10'** is reclined the seat **14'** moves forwardly of the seat frame **13'** to a point adjacent a footrest **45'** which is a counterpart of the footrest **45** of the first embodiment.

The chair preferably is not reclined when it is in an upright position as illustrated in FIGS. 9 and 13, since the upward and forward movement of the seat 14' pivoting on link 170 tends to push a user forwardly off the chair. Furthermore, this movement may cause a noticeable pull on the user's clothing which is undesirable. Therefore, in operating the chair it has been found preferable to move the chair into a rocked position such as illustrated in FIG. 14, before or as the seat 14' and back 10' are reclined. The linkage system which mounts the seat 14' and back 10' to the fixed chair frame is balanced so that when the additional force is applied adjacent the top of the back 10' to initiate the reclining movement the chair conjointly rocks into a tilted position as illustrated in FIG. 14. During the pivotal movement of the seat 14' on the improved reclinable linkage system the rearward portion of the seat 14' is lowered by tilting the chair to a point where the reclining movement will not move the seat 14' into a position in which a person slides or is pushed forwardly. The back 10', seat 14', and footrest 45' thus cooperate to form a continuous support which has been found unusually comfortable throughout a wide range of adjustments.

The mechanism which locks the chair in the tilted positions and extends the footrest is the counterpart of that illustrated in the embodiments of FIGS. 1–7 and counterpart elements of the mechanism of the first embodiment are designated with identical primed reference numerals in FIGS. 8–14.

The seat frame portion 13' may be releasably held in a plurality of preselected tilted positions by the novel one-way locking mechanism of the first embodiment. When the operating arm 51' is moved in a forward direction to the position as illustrated in FIGS. 9 and 12 the wire element 78' is moved rearwardly to pivot the latching bar 74' to the rear with the chisel end 73' withdrawn from a notch or tooth 72' in the latching bracket 71'. When the handle is moved in a rearward direction, the footrest 45' is raised to the horizontal forwardly extending position as illustration in FIGS. 13 and 14 and the channel element 86' moves the rear end of the wire element 78' forwardly into bowed shape and pivots the latching bar 74' clockwise to advance the end 73' into engagement with a tooth 72' of the latching bracket 71'. If it is desired to tilt the chair rearwardly, the chiseled end 73' of the latching bar 74' will ratchet over the teeth 72', until the proper degree of tilt has been reached. The rocking portion of the chair is prevented from returning to its forward position through the engagement of the chiseled end 73' of the latch bar 74' with an adjacent tooth 72', as illustrated in FIG. 13. Thus, the locking mechanism only locks the chair against downward rocking movement. The chair is free to rock in the opposite direction through a plurality of positions.

When it is desired to lower the rocker portion of the chair to a horizontal position and return the seat 14' and lock 10' to an upright position, the operating arm 51' is moved forwardly to the position illustrated in FIGS. 9 and 12 to produce a pull on the spring wire element 78' which withdraws the chiseled end 73' of the latching bar 74' from the tooth 72' and retract the footrest 45'.

The one-way lock is especially suited to reclining the seat 14' and back 10' since the reclining force causes the chair to freely tilt backwardly conjointly with the reclining movement of the seat 14' and back 10'. The one-way locking effect of the improved locking mechanism will freely permit the conjoint movement but yet, will prevent tilting of the reclined chair to an upright position until the operating arm 51' is moved forwardly to release the seat 14' and back 10'.

It will be understood that the specific constructions of the improved reclining platform rocking chair which are herein disclosed and described are presented for purposes of explanation and illustration and are not intended to indicate limits of the invention, the scope of which is defined by the following claims.

What is claimed is:

1. In a platform rocking chair the combination of, a base portion, a chair portion rockable on said base portion, a footrest, means supporting said footrest on said chair portion for movement between an inactive lower position and a raised leg supporting position, means for actuating said supporting means to and from a footrest raised position, a bracket having a plurality of teeth forming notches supported on one of said portions, a pivoted latch bar carried by the other of said portions and engageable with one of said plurality of notches, and means operatively associated with said actuating means including a spring engaging said latch bar and urging it into teeth engaged position with one of said plurality of notches when said footrest is being moved to raised position and further including an element for moving said spring in a direction to move said latch bar from the notch to unlock said chair portion as said footrest is moved toward its retracted position.

2. In a platform rocking chair the combination of, a base portion, a chair portion rockable on said base portion, a footrest, means supporting said footrest on said chair portion for movement between an inactive lower position and a raised leg supporting position, means for actuating said supporting means to and from a footrest raised position, a bracket having a plurality of teeth forming notches supported on one of said portions, a pivoted latch bar carried by the other of said portions and engageable with one of said plurality of notches, means operatively associated with said actuating means including a spring for urging said latch bar into engagement with a notch, when said footrest is being moved to its raised position and means for drawing said latch bar from the notch independent of the position of said footrest.

3. In a platform rocking chair the combination of, a base portion, a chair portion rockable on said base portion, a footrest, means supporting said footrest on said chair portion for movement between an inactive lower position and a raised leg supporting position, means for actuating said supporting means to and from a footrest raised position, an angle-shaped bracket having one flange secured to the inner face of the chair portion and a rearward flange containing a plurality of notches, a latch bar, means pivoting the latch bar to the base portion with the free end in position to engage any one of the plurality of notches on said flange, means operatively associated with said actuating means including a spring for urging said latch bar toward said notches when said footrest is being moved to its raised position, and means actuated from the outer side of said chair for drawing said latch bar out of a notch engaged position independent of the position of said footrest.

4. In a platform rocking chair the combination of, a base portion, a chair portion rockable on said base portion, a footrest, means supporting said footrest on said chair portion for movement between an inactive lower position and a raised leg supporting position, means for actuating said supporting means to and from a footrest raised position, a bracket having a plurality of teeth forming notches supported on one of said portions, a pivoted latch bar carried by the other of said portions and engageable with one of said plurality of notches, a spring wire connected to said latch bar for urging said latch bar into engagement with a notch, and an arm on said footrest actuating means to which the opposite end of said spring wire is connected whereby the wire functions as a spring for holding said latch bar in engagement with a notch when the footrest is in the raised position and as a pull element for withdrawing said latching end from engagement with the notch before said footrest reaches its retracted position.

5. In a platform rocking chair the combination of, a

base, a seat and a back, means supporting said seat and said back on said base for both rocking movement and reclining movement and said supporting means being constructed and arranged so as to resist any substantial reclining movement during normal rocking movement and to permit rearward rocking of said seat and back on said base during reclining movement of said seat and said back.

6. In a platform rocking chair the combination of, a base, a seat and a back, means supporting said seat and back on said base for both rocking movement and reclining movement, said supporting means being constructed and arranged so as to resist any substantial reclining movement during normal rocking movement and to permit rearward rocking of said seat and back on said base during reclining movement of said seat and said back, and actuatable means for releasably locking said seat and said back against forward rocking movement on said base while permitting rearward rocking movement.

7. In a platform rocking chair the combination of, a base, a seat and a back, means supporting said seat and back on said base for both rocking movement and reclining movement, said supporting means being constructed and arranged so as to resist any substantial reclining movement during normal rocking movement and to permit rearward rocking of said seat and back on said base during reclining movement of said seat and said back, a footrest, and means operatively associated with said seat and back supporting means for moving said footrest from an inactive lower position to a raised leg-supporting position including means for affecting the rocking movement of the chair in accordance with the position of said footrest.

8. In a platform rocking chair the combination of, a base, a seat and a back, means supporting said seat and back on said base for both rocking movement and reclining movement, said supporting means being constructed and arranged so as to resist any substantial reclining movement during normal rocking movement and to permit rearward rocking of said seat and back on said base during reclining movement of said seat and said back, actuatable means for releasably locking said seat and said back against forward rocking movement on said base while permitting rearward rocking movement, a footrest, and means operatively associated with said actuatable means for moving said footrest from an inactive lower position to a raised leg-supporting position including means for affecting the releasable locking of said seat and said back against forward rocking movement in accordance with the position of said footrest.

9. In a platform rocking chair the combination of, a base frame, a support frame having a seat pivotally mounted thereon, a back pivotally mounted on said support frame, means including a rocker interconnecting said base frame and said support frame for rocking said seat and back relative to said base frame, and means interconnecting said back and said seat for conjointly reclining said back and said seat relative to said support frame.

10. In a platform rocking chair the combination of, a base frame, a support frame having a seat pivotally mounted thereon, a back pivotally mounted on said support frame, means including a rocker interconnecting said base frame and said support frame for rocking said seat and back relative to said base frame, means interconnecting said back and said seat for conjointly reclining said back and said seat relative to said support frame, and means on said base frame for releasably retaining said support frame in a plurality of tilted positions relative to said base frame.

11. In a platform rocking chair the combination of, a base frame, a support frame, means including a rocker interconnecting said base frame and said support frame, a seat and a back, means for releasably retaining said support frame in a tilted position with respect to said base frame, said seat having a forward portion pivotally connected to said support frame, and means interconnecting said seat and said back for conjoint reclining movement of said seat forwardly about said front pivot and movement of said back rearwardly of said seat.

12. In a platform rocking chair the combination of, a base frame, a support frame, means including a rocker interconnecting said base frame and said support frame, a seat and a back, means for releasably retaining said seat support frame in a tilted position with respect to said base frame, said seat having a forward portion pivotally connected to said support frame, means interconnecting said seat and said back for conjoint reclining movement of said seat forwardly about said front pivot and movement of said back rearwardly of said seat, and means on said seat and back to resist any substantial reclining movement during normal rocking movement and to permit rearward rocking of said support frame on said base during reclining movement of said seat and said back.

13. In a platform rocking chair the combination of, a base frame, a support frame having a seat pivotally mounted thereon, a back pivotally mounted on said support frame, means including a rocker interconnecting said base frame and said support frame for rocking said seat and back relative to said base frame, means interconnecting said back and said seat for conjointly reclining said back and said seat relative to said support frame, and one-way lock means including coacting means on said support frame and said base frame permitting tilting of said support frame rearwardly conjointly with the movement of said back and seat with respect to said support frame and preventing forward tilting of said support frame to an upright position.

14. In a platform rocking chair the combination of, a base frame, a support frame having a seat pivotally mounted thereon, a back pivotally mounted on said support frame, means including a rocker interconnecting said base frame and said support frame for rocking said seat and back relative to said base frame, means interconnecting said back and said seat for conjointly reclining said back and said seat relative to said support frame, one-way lock means including coacting means on said support frame and said base frame permitting tilting of said support frame rearwardly conjointly with the movement of said back and seat with respect to said support frame and preventing forward tilting of said support frame to an upright position, a footrest on said support frame, and means operatively associated with said coacting means on said support frame and said base frame for moving said footrest from an inactive lower position to a raised leg-supporting position including means for affecting forward rocking movement of said support frame in accordance with the position of said footrest.

15. In a platform rocking chair the combination of, a base frame, a support frame, rocker means interconnecting said base frame and said support frame, a seat, a back pivotally mounted on said support frame, said seat having a forward portion pivotally connected to said support frame, means interconnecting said seat and said back for conjoint reclining movement of said seat forwardly about said front pivot and movement of said back rearwardly of said seat, one-way lock means including a bracket having a plurality of teeth forming notches supported on one of said frames, a pivoted latch bar carried by the other of said frames and engageable with one of said plurality of notches, and spring means for urging said latch bar into engagement with one of said plurality of notches; said latch bar freely passing over said notches as said support frame is tilted rearwardly conjointly with the movement of said back and seat and said latch bar engaging said notches for releasably restraining said support frame against forward tilting when said back and seat assume a predetermined position, a footrest, and means operatively associated with said lock means for moving said footrest from an inactive lower position to

a raised leg-supporting position including means for affecting the forward rocking movement of said support frame in accordance with the position of said footrest.

16. In a platform rocking chair the combination of, a base frame, a support frame having a seat pivotally mounted thereon, a back pivotally mounted on said support frame, means including a rocker interconnecting said base frame and said support frame for rocking said seat and back relative to said base frame, means interconnecting said back and said seat for conjoint reclining movement of said back and said seat relative to said support frame, means on said base frame releasably retaining said support frame in a plurality of tilted positions relative to said base frame, a footrest on said support frame, and means for moving said footrest from an inactive lower position to a raised leg-supporting position including means operatively associated with said footrest and said releasable retaining means for affecting the rocking movement of said support frame in accordance with the position of said footrest.

17. In a platform rocking chair the combination of, a base frame, a support frame having a seat pivotally mounted thereon, a back pivotally mounted on said support frame, rocker means interconnecting said base frame and said support frame for rocking said seat and back relative to said base frame, bracket means on said seat, a link pivotally connected between said back and said seat, means defining an aperture in said link, a clamp element in said aperture, means interconnecting said bracket means, link and clamp element, and means for adjusting the force required to move said clamp element in said aperture for restraining said seat and said back with respect to said support frame.

18. The structure set forth in claim 7 wherein said supporting means includes friction clamping means adjustable to vary the force required to recline said seat and back.

19. The structure set forth in claim 11 and adjustable friction clamping means for controlling the force required to effect said reclining movement.

References Cited in the file of this patent

UNITED STATES PATENTS

153,966	Knell	Aug. 11, 1874
710,035	Bergstrom	Sept. 30, 1902
2,746,519	Krikorian	May 22, 1956
2,817,388	Knabusch	Dec. 24, 1957