April 3, 1962 G. N. KITSOPOULOS 3,028,196

MULTIPLE PURPOSE CHAIR

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Fig. 1

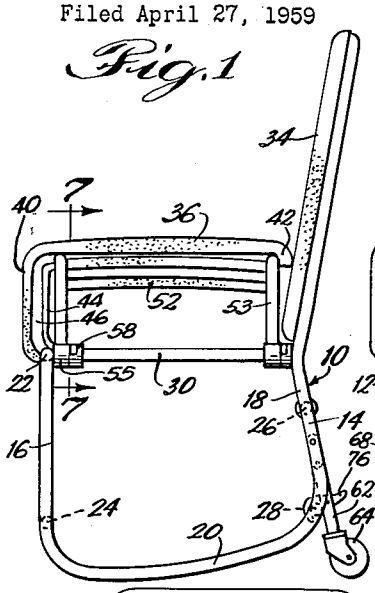


Fig. 2

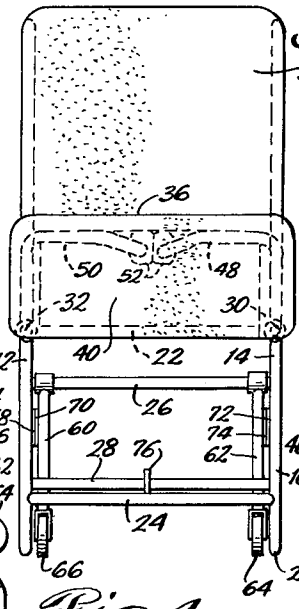


Fig. 3

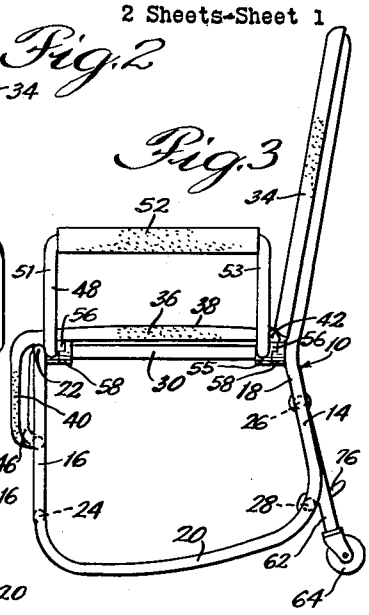


Fig. 4

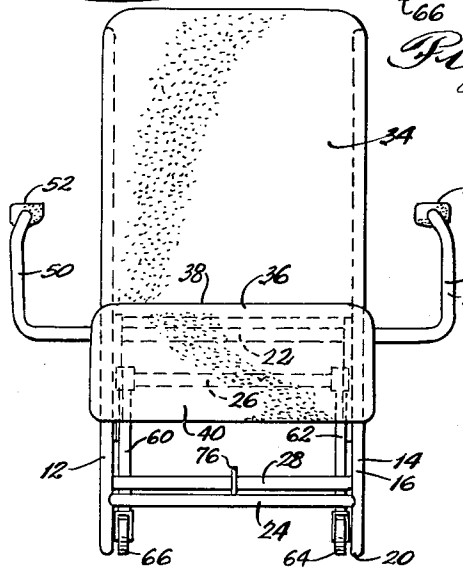


Fig. 6

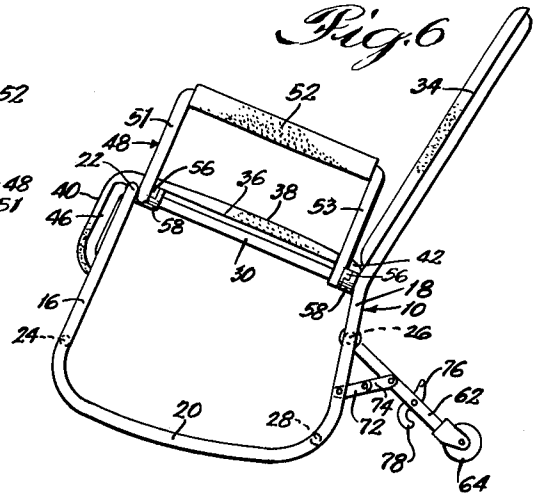
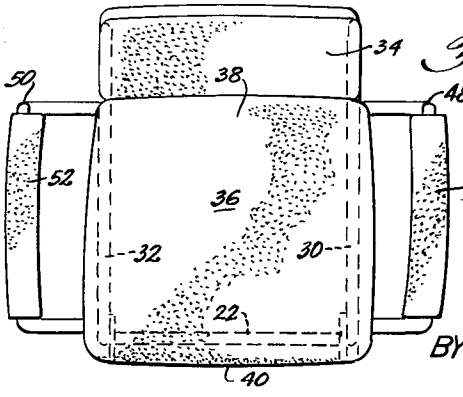


Fig. 5



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Fig. 7

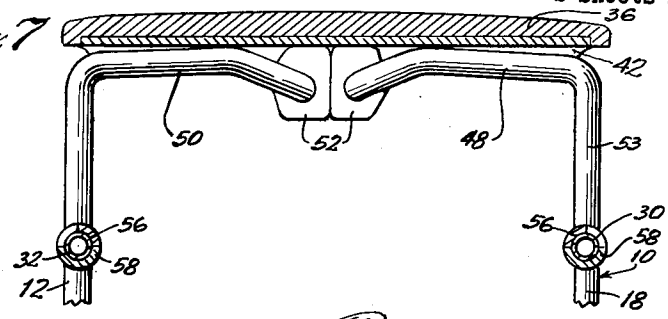


Fig. 8

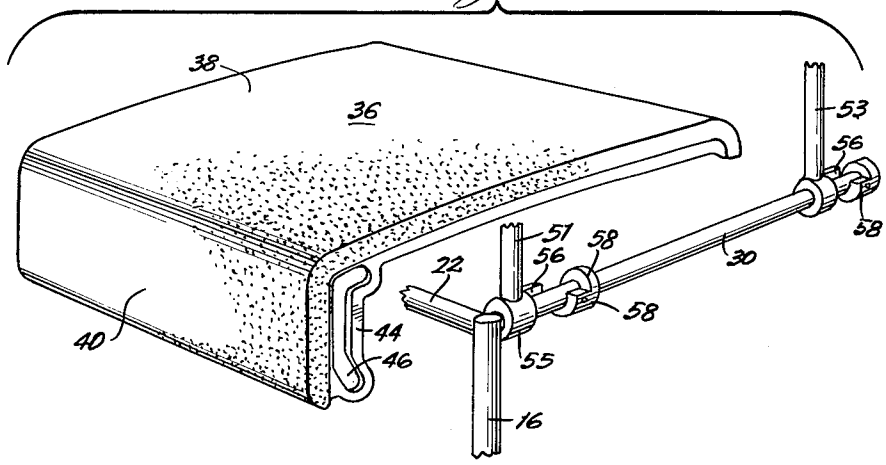
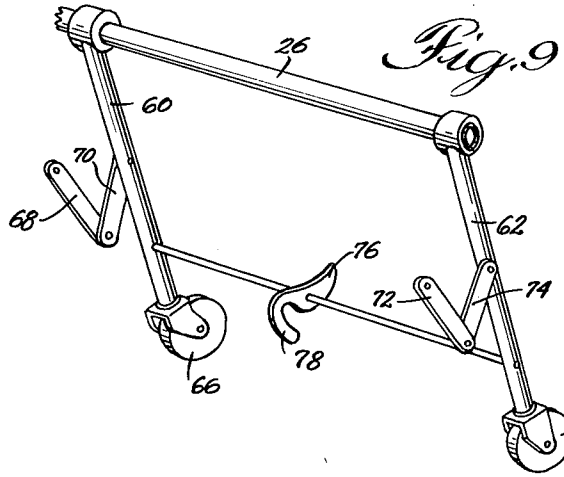


Fig. 9



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3,028,196

MULTIPLE PURPOSE CHAIR

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9 Claims. (Cl. 297—116)

This invention relates generally to a new and improved multipurpose chair construction, and more particularly to a novel chair construction selectively adaptable for use as a regular chair, as a low profile relaxation or lounging chair, or as a rocking chair.

It is a general object of this invention to provide a new and highly versatile chair construction which comprises, in combination, a main frame, a selectively adjustable seat, a pair of selectively adjustable support members, and pivotable leg means, which cooperate in a unique manner and relationship to enable the chair to be used selectively as a regular chair, a low profile relaxation chair, or a rocking chair.

It is another object of this invention to provide a novel multipurpose chair construction, as described above, which is characterized by a pair of foldable support members positioned at opposed sides of the main frame, said support members being adapted to be folded into horizontal position for supporting the seat in its high position when the invention is used as a regular chair, and being further adapted to be unfolded into vertical position to serve as arm rests when the seat is in its low profile position and the invention is used as a relaxation chair.

It is still another object of this invention to provide a novel multipurpose chair construction, as described above, in which the seat is slidably and pivotally connected to the main frame by means of an elongated groove formed in the opposed side walls of the seat through which a crossbar of the frame is positioned. In accordance with a feature of this invention, the grooves in the seat side walls permit the seat to slide up and down and to rotate on the crossbar to enable the seat to be offset from the frame when the support members are folded or unfolded during seat adjustment, as when the chair is being changed from one of its positions to another. Further, the provision of the elongated grooves enables the seat to slide forwardly when the seat is lowered for the low profile relaxation use or the rocking chair use so that the seat does not interfere with the chair back rest, and to give better rocking balance.

It is a further object of this invention to provide a novel multipurpose chair construction having means enabling the chair to be used in a stationary position or to be used as a rocking chair. More specifically, it is a feature of this invention to provide an adjustable leg member pivoted at one end thereof to the main frame and provided at the other end thereof with a suitable roller wheel or caster such that the chair may be maintained in fixed position when the adjustable leg is pivoted to a position adjacent the frame, or permitted to rock on the arcuate bottom portion of the frame when the adjustable leg is pivoted to a position remote from the frame. It is a further feature of the invention that the adjustable leg, when positioned remote from the frame, limits the rocking sweep of the chair frame to a safe degree of rotation to prevent any possibility of the chair being toppled over in the backward direction.

It is a still further feature of this invention to provide a new and improved multipurpose chair construction, as described above, which is characterized by its versatility of use, and its simplicity and economy of construction.

With these and other objects in view, the invention consists in the construction, arrangement and combination of the various parts of the novel multipurpose chair

construction whereby the objects contemplated are attained as hereinafter set forth. The various features of novelty which characterize this invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of the invention, however, and its advantages, reference is had to the accompanying drawing and descriptive matter in which is illustrated and described a specific illustrative embodiment of the invention.

In the drawing:

FIGURES 1 and 2 are side and front elevational views, respectively, of a preferred illustrative emobdiment of the invention in the regular chair position;

FIGURES 3, 4 and 5 are side, front and top elevational views, respectively, of a preferred illustrative embodiment of the invention in the low profile relaxation position;

FIGURE 6 is a side elevational view of a preferred illustrative embodiment of the invention in the rocking position;

FIGURE 7 is a cross-sectional view of the invention taken substantially as shown along lines 7—7 of FIGURE 1;

FIGURE 8 is an exploded view, partially broken, of the seat and the seat and arm rest support structure constructed in accordance with the invention; and

FIGURE 9 is a perspective view showing in greater detail, the pivoted leg structure of the invention which advantageously is utilized in converting the multipurpose chair from a stationary to a rocking condition.

Referring now to the drawing, and more particularly to FIGURES 1 and 2 thereof, there is shown a specific illustrative embodiment of the invention having its parts arranged in the regular chair position. As shown in these figures, the multi-purpose chair of the invention comprises a main frame **10** having a pair of spaced-apart base members **12** and **14** respectively. Each base member is substantially in the form of a front vertical member **16**, a rear vertical member **18** extending upwardly to a height greater than that of the front member **16**, and a bottom arcuate portion **20** between the front and rear members **16** and **18** and having a gradual rise from the front to the rear member so that only a portion of the base member bottom engages the chair supporting surface.

The base members **12** and **14** are securely attached to each other as by means of the upper front cross-bar **22**, the lower front cross-bar **24**, the upper rear cross-bar **26**, and the lower rear cross-bar **28**. In addition, the front and rear vertical portions **16** and **18** of each base member are rigidly attached to each other by means of a horizontal cross-bar, cross-bar **30** being provided for frame **14** and cross-bar **32** being provided for frame **12**.

Also, a back rest **34** is secured to the upper portions of the base member vertical portions **18** in any suitable manner for supporting the back of the user and to provide additional rigidity to the chair structure. In accordance with a novel feature of this invention, the multipurpose chair is provided with a seat **36** adapted to be positioned in a raised position—as shown in FIGURES 1 and 2—when the chair is used as a regular chair, or to be positioned in a lowered position—as shown in FIGURES 3, 4, and 5—when the invention is used as a low profile relaxation chair. Reference now is made to FIGURES 7 and 8 wherein the several novel features of the selectively adjustable seat **36** are shown in greater detail.

Seat **36** advantageously comprises a horizontal portion **38**, a vertical flange **40** depending from the front of the horizontal portion **38**, and an additional vertical flange **42** depending from the rear of the horizontal portion **38**. The front flange **40** is provided with a wall **44** at each side thereof, and each side wall **40** is formed

with an elongated groove 46. When the chair is assembled, the upper front cross-bar 22 is inserted through the elongated grooves 46 at each side of the seat 36 so that the seat is free to pivot about the upper front cross-bar 22 and to be raised or lowered as desired by sliding the cross-bar 22 in the elongated groove 46.

Thus, those skilled in the art will readily appreciate that the seat 36 may be raised by the sliding action of the cross-bar 22 in the grooves 46. Due to the angular cut of the grooves 46 at the lower portions thereof, a locking action is provided whereby the seat 36 may be securely positioned in the upper, regular chair position, when desired. Support of seat 36 in the upper regular chair position is further aided by means of a pair of support members 48 and 50 pivotally mounted on the horizontal crossbars 30 and 32 of the main frame. Each support member is formed with a front L-shaped support bar 51 and a rear L-shaped support bar 53 having an arm rest 52 therebetween at the upper end thereof. The opposite ends of the L-shaped support bars 51 and 53 are provided with tubular coupling members 55 rotatably positioned around the horizontal cross-bars 30 and 32.

The details of this coupling is shown in FIGURE 8 wherein the support bars 51 and 53 are rotatably positioned about the horizontal cross-bar 30. Each support bar is provided with a 90° arcuate stop or limit extending therefrom such as a stop member 56 adjacent the support bar 51. In accordance with a feature of this invention, each stop is adapted to cooperate with a 180° arcuate segment 58 securely fastened to the horizontal cross-bar 30 such that the arm rest support members are permitted to rotate through an arc of 90° about the horizontal cross-bar. When seat 36 is positioned in its high or regular seat position, the support members 48 and 50 are rotated inwardly through their 90° arc of rotation into the position shown in FIGURE 7 of the drawing.

It can be seen in FIGURE 7 that the 90° arcuate segment of the stop or limit 56 and the 180° arcuate segment 58 on the horizontal cross-bar 30 cooperate to limit the rotation of the support member through the above-described 90° arc of rotation. With the support members 48 and 50 rotated or folded inwardly as shown in FIGURE 7, the support members serve to provide a support for the seat 36 and this support together with the locking action of the angular lower portion of groove 46 and the further locking action of the rear depending flange 42 serves to hold the seat 36 firmly and rigidly in position.

In accordance with a feature of this invention, it may be desirable to lower seat 36 so that the chair can be used as a low profile relaxation chair. FIGURES 3, 4, and 5 illustrate the positions of the chair components when the chair is used for this purpose. The change from the regular chair to the low profile relaxation chair has been rendered relatively simple by the unique structural arrangement of the invention.

Thus, all that is required for this change, is to raise and rotate forwardly seat 36 sufficiently to permit the support members 48 and 50 to be rotated or unfolded 90° so that the arm rests 52 thereof are in vertical position for receiving the arms of the user. As explained above, and as shown in FIGURE 7, in the drawing, a 90° outward rotation of the support members 48 and 50 is defined and limited by the cooperation between the stop 56 and the arcuate segment 58. With the arm rests 48 and 50 in their unfolded position, the seat 36 can be dropped by means of the grooves 46 so that the seat rests upon the upper front cross-bar 22 of the frame. At this time, the depending flange 42 at the rear of seat 36 serves to support the seat 36 at the rear thereof.

In accordance with a further feature of this invention, the right angle formed at the upper portion of groove 46 facilitates the locking of the upper front cross-bar 22 in the groove so that the seat 36 is maintained firmly in the low profile relaxation position.

In accordance with a further feature of this invention, the multi-purpose chair is adapted to be used as a rocking chair, and for this purpose, the gradually rising arcuate portions 20 of the frame base members comes into play. As particularly shown in FIGURES 1, 3 and 6 of the drawing, the chair is provided with pivotable wheel means at the rear thereof for enabling the change from a stationary to a rocking chair. The details of the pivotable wheel means are shown in FIGURE 9 of the drawing, and it can be seen that such means comprise a pair of wheel support members 60 and 62 rotatably journaled on the upper rear cross-bar 26. Suitable casters or rollers, such as wheels 64 and 66, are provided at the lower portion of support members 60 and 62, and the degree of rotation of the wheels with respect to the main frame is limited by pivoted linking members 68 and 70 connected to wheel support member 60, and linking members 72 and 74 connected to wheel support member 62.

The linking members 68 and 72 are pivotally attached to the base members 12 and 14 of the main frame and it can be seen, as a result of this arrangement, that the wheels may be held adjacent the main frame, as shown in FIGURES 1 and 3, or may be positioned remote therefrom, as shown in FIGURE 6. Advantageously, a selectively adjustable lock 76 is provided on a cross-bar 78 positioned between the wheel support members 60 and 62. The lock 76 is provided with a hook 78 adapted to be hooked over the lower rear cross-bar 28 when the chair is in the stationary position as shown in FIGURES 1 and 3.

When it is desired to utilize the chair as a rocking chair, the lock 76 is rotated to unhook the hook 78 from the lower rear cross-bar 28 and the wheel support members then are permitted to rotate to position the wheels 64 and 66 remote from the main frame. Due to the gradual rise of the arcuate segment 20 at the bottom of the main frame base members, the chair is able to rock back and forth, and this rocking motion is further facilitated by the rolling action of the rollers 64 and 66 positioned remote from the main frame. In addition to facilitating the rocking action of the chair, the rollers 64 and 66 further serve to support, and to prevent through their limited rotational movement or sweep, any falling back or tipping of the chair during its rocking movement. Still further, the rollers 64 and 66 aid in moving the chair as the wheels or casters eliminate the need for lifting the chair.

I have shown and described an illustrative embodiment of my invention wherein a multi-purpose chair can easily be adapted from a regular chair to a low profile relaxation chair or to a rocking chair, as desired. Those skilled in the art will readily appreciate that the principles of the invention may be used with constructions other than the preferred illustrative embodiments shown herein, and that various changes and modifications may be made without departing from the principles of the invention. Therefore, it is intended to cover in the appended claims any changes and modifications which fall within the true spirit and scope of this invention.

What is claimed as the invention is:

1. A multi-purpose chair having selectively adjustable regular, low profile relaxation and rocking positions comprising a main frame including a pair of spaced-apart base members, said base members having arcuate portions with a gradual rise from the front to the rear of the frame for engagement with the chair supporting surface, a cross-bar on the front of said frame securely attached to said base members, a seat adapted to be supported in a selectively adjustable manner on said frame, said seat including a pair of spaced apart flanges, each having an elongated groove formed therein, said cross-bar being inserted in said grooves to permit the seat to be pivoted about said cross-bar and to be raised and lowered in said frame relative to said cross-bar, a support member including an arm rest pivotally secured to each side of said frame rearwardly of said flanges, each of said support

members being adapted to be folded in horizontal position for supporting the seat when the chair is serving as a regular chair and being further adapted to be unfolded into a vertical position for permitting the seat to be lowered when the chair is serving as a low profile relaxation chair, said arm rests being in arm supporting position when said support members are unfolded into vertical position, and adjustable leg means pivotally secured to the rear of said frame adapted to be positioned adjacent said base members for holding the chair in a stationary position when the latter is in its non-rocking position, and adapted to be positioned remote from said base members to permit the chair to rock on the arcuate portions of said base members for use as a rocking chair.

2. A multi-purpose chair comprising a main frame including a pair of spaced-apart base members, said base members having arcuate portions with a gradual rise from the front to the rear of the frame for engagement with the chair supporting surface, a cross-bar on the front of said frame securely attached to said base members, a seat adapted to be supported in a selectively adjustable manner on said frame, said seat including a pair of spaced apart flanges, each having an elongated groove formed therein, said cross-bar being inserted in said grooves to permit the seat to be pivoted about said cross-bar and to be raised and lowered in said frame relative to said cross-bar, a support member including an arm rest pivotally secured to each side of said frame rearwardly of said flanges, each of said support members being adapted to be folded in horizontal position for supporting the seat when the chair is serving as a regular chair and being further adapted to be unfolded into a vertical position for permitting the seat to be lowered when the chair is serving as a low profile relaxation chair, and adjustable leg means pivotally secured to the rear of said frame adapted to be positioned adjacent said base members for holding the chair in a stationary position when the latter is in its non-rocking position, and adapted to be positioned remote from said base members to permit the chair to rock on the arcuate portions of said base members for use as a rocking chair.

3. A multi-purpose chair having selectively adjustable positions comprising a main frame including base members, a cross-bar on the front of said frame attached to said base members, a seat adapted to be supported in a selectively adjustable manner on said frame, said seat including a depending flange having a pair of spaced-apart elongated grooves formed therein, said cross-bar being inserted in said grooves to permit the seat to be pivoted about said cross-bar and to be raised and lowered in said frame relative to said cross-bar and a support member including an arm rest pivotally secured to each side of said frame rearwardly of said depending flange, each of said support members being adapted to be folded in horizontal position for supporting the seat when the chair is serving as a regular chair and being further adapted to be unfolded into a vertical position for permitting the seat to be lowered when the chair is serving as a low profile relaxation chair, said arm rest being in arm resting position when said support members are unfolded into vertical position.

4. A multi-purpose chair having a plurality of selectively adjustable positions comprising a main frame including a pair of spaced-apart base members, a seat adapted to be supported in a selectively adjustable manner on said frame, means associated with said seat for enabling the seat to be raised and lowered in said frame, a support member pivotally secured to each side of said frame, each support member being adapted to be folded in horizontal position for supporting the seat when the chair is serving as a regular chair and being further adapted to be unfolded into a vertical position for permitting the seat to be lowered when the chair is serving as a low profile relaxation chair, and adjustable leg means pivotally secured to the rear of said frame adapted to be positioned adjacent said base members for holding the chair in a stationary position when the latter is in its non-rocking position, and adapted to be positioned remote from said base members to permit the chair to be used as a rocking chair.

5. A multi-purpose chair having a plurality of selectively adjustable positions comprising a main frame including a pair of base members, a seat supported in a selectively adjustable manner on said frame and adapted to be raised and lowered thereon and a support member pivotally secured to each side of said frame adapted to be folded in horizontal position for supporting the seat when the chair is serving as a regular chair and being further adapted to be unfolded into a vertical position for permitting the seat to be lowered when the chair is serving as a low profile relaxation chair.

6. A multi-purpose chair in accordance with claim 5 further comprising adjustable leg means pivotally secured to the rear of said frame adapted to be positioned adjacent said base members for holding the chair stationary when the latter is in its non-rocking position, and adapted to be positioned remote from said base members to permit the chair to be used as a rocking chair.

7. A multi-purpose chair in accordance with claim 6 wherein said adjustable leg means further comprises manually operable lock means operative to fasten said leg means to said frame when the chair is in its non-rocking position.

8. A multi-purpose chair in accordance with claim 6 wherein said adjustable leg means further comprises rotatable members at the floor engaging ends thereof to facilitate rocking of the chair when the leg means are positioned remote from said base members and further to facilitate movement of the chair from one place to another.

9. A multi-purpose chair having selectively adjustable regular, low profile relaxation and rocking positions comprising a main frame including a pair of spaced-apart base members having arcuate portions with a gradual rise from the front to the rear of the frame for engagement with the chair supporting surface, a seat supported in a selectively adjustable manner on said frame and adapted to be raised and lowered in said frame, a support member including an arm rest pivotally secured to each side of said frame rearwardly of said depending flange, each of said support members being adapted to be folded in horizontal position for supporting the seat when the chair is serving as a regular chair and being further adapted to be unfolded into a vertical position for permitting the seat to be lowered in said frame when the chair is serving as a low profile relaxation chair, said arm rest being in arm resting position when said support members are unfolded into vertical position, and adjustable leg means pivotally secured to the rear of said frame adapted to be positioned adjacent said base members for holding the chair in a stationary position when the latter is in its non-rocking position, and adapted to be positioned remote from said base members to permit the chair to be used as a rocking chair.

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