Sept. 13, 1960 J. MITTLIEDER 2,952,302

CHAIR

Filed Aug. 2, 1956

FIG. 1.

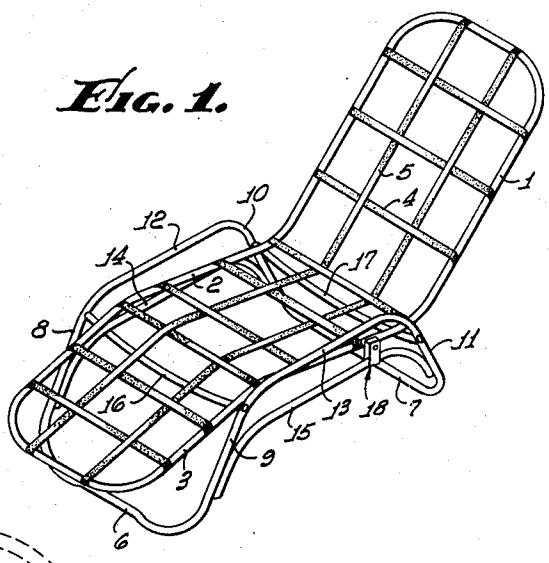


FIG. 2.

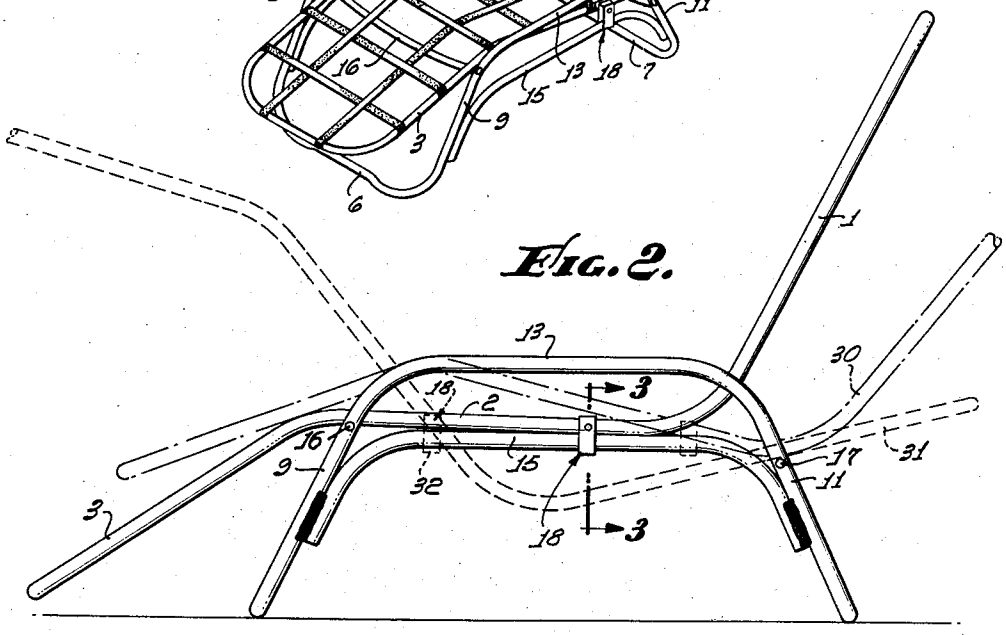


FIG. 3.

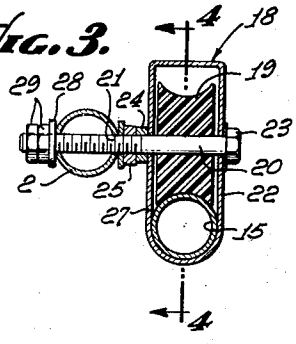
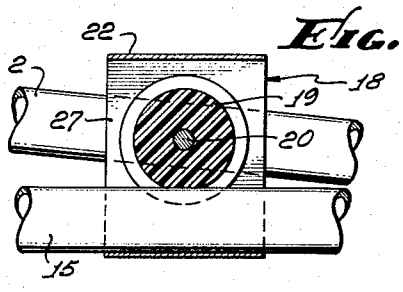


FIG. 4.



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CHAIR

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2 Claims. (Cl. 155—105)

The present invention relates broadly to chairs, and specifically to a type of chair which includes a back, seat and leg support of the so-called "contour" type, and wherein the seat, back and leg support are shiftable relative to a support framing, to the end that the chair may be tipped to various angularities relative to the support framing, and held in the desired position without the use of locking means.

An object of the invention is the provision of a chair which may be shifted relative to a supporting structure to permit tipping movement of the chair to various desired angularities.

A further object is the provision of a chair which is adapted for either indoor or outdoor use, of attractive appearance, which includes novel constructional features, and which is generally superior to so-called invalid type or contour type chairs now known to the inventor.

Further objects include a chair which is inexpensive in cost of manufacture, foolproof in operation, and easily handled.

With the above mentioned and other objects in view, the invention consists in the novel and useful provision, formation, construction, association, and relative arrangement of parts, members and features, all as shown in a certain embodiment in the accompanying drawing, described generally, and more particularly pointed out in the claims.

In the drawing:

Figure 1 is a perspective view of my improved chair,

Figure 2 is a side elevation of the chair shown in Figure 1 and on an enlarged scale,

Figure 3 is a sectional view on the line 3—3 of Figure 2, on an enlarged scale, and,

Figure 4 is a fragmentary sectional view on the line 4—4 of Figure 3.

Referring now with particularity to the drawing, the chair includes a back **1**, seat **2**, and leg support **3**, the leg support prolonging the seat and at an inclination to the seat. In the present instance, the chair is formed from tubing which marginally outlines or bounds the back, seat and leg support, with spaced flexible transverse and longitudinal strips **4** and **5** joined to said framing. A sectional or continuous cushion (not shown) overlies the strips to form a soft support for the body of the user of the chair.

In the present instance, the support for the back, seat and leg support includes a tubular framing so bent as to provide substantially parallel, spaced apart transverse ground support members **6** and **7**, left and right front uprights **8** and **9**, and rear left and right uprights **10** and **11**, which uprights are joined by arms **12** and **13**. The spacing between the ground supports **6** and **7** is greater than the length of the arms **12** and **13** with the result that pairs of uprights, both left and right, **8** to **11** inclusive, are angularly related, as shown in Figure 2. Interconnecting the uprights **8** and **10** and **9** and **11** are tubular members **14** and **15**, and which members are spaced below the arms **12** and **13**. The tubular members **14** and

15 have curved ends which are joined to the framing members in any desired manner, such as by welding or brazing, and which members have horizontal portions substantially paralled with the arms. Tie bars **16** and **17** interconnect the front and rear uprights **8** and **9**, **10** and **11**, respectively. The tie bars are downwardly bowed so as not to interfere with the spring effect of the transverse and longitudinal strips **4** and **5** when supporting a load.

As shown best in Figure 2, the tie bar **16** is above the plane of the horizontal portions of members **14** and **15**, while the rear tie bar **17** lies below said plane.

Interposed between the seat framing and the members **14** and **15** are a pair of fulcrum members **18**. The fulcrum members are identical for each side of the chair, and include a grooved roller **19** suitably mounted upon an elongated bolt **20**, which forms an axle for the roller, and which bolt is passed diametrically through the framing for the seat, as shown in Figure 3, at **21**. Surrounding the said grooved roller **19** and either member **14** or **15** is an enclosing casing **22**. The head **23** of the bolt engages the outer side wall of the casing **22**, while spacers **24**, **25** are carried on the bolt and interposed between the tubular framing for the seat and the inner side wall **27** of the casing. A washer **28** bears against the tubular framing of the seat, and a pair of nuts, designated as **29**, carried on the bolt, secure the parts just described in assemblage. As shown in the figures, the opposite ends of the casing **22** are open. Thus, the seat is supported by a pair of aligned, movable fulcrum members carried upon the members **14** and **15**, which permits the chair seat and its associated members, to-wit, the back and leg support, to be shifted toward the front or rear uprights, at the option of the user of the chair.

The operation, uses and advantages of the invention just described are as follows:

It is to be noted that the members **14** and **15** act to brace the uprights of the support framing for the chair, and likewise through the fulcrum members, provide a support for the chair seat and its associated members. In Figure 2, I have shown several positions which the chair seat, back and leg support may assume, depending upon the shifting of the fulcrum members on the tubular members **14** and **15**. When a user of the chair is desirous of changing the angularity thereof to a new position, the user either tilts the seat forwardly to the tie bar **16** when an upright posture is desired, or moves the seat on the fulcrum members toward tie bar **17** to obtain a reclining position. It should be observed that while the seat is being adjusted to a new position, the chair user balances and moves the same on the pair of fulcrum rollers.

The connection of the fulcrum members to the seat frame is such that said fulcrum members are positioned nearer the rear of the seat than the front of the seat. The drawing shows that the fulcrum members are approximately two-thirds of the distance from the front of the seat. This distance, of course, may vary, but I have found it expedient to so locate the fulcrum members.

If it is desired to tip the chair, the chair seat is moved on the fulcrum members toward the rear of the chair, as for example, to the dotted line position indicated at **30**. This will give a slight elevation to the seat and the leg support, the rear of the chair seat resting upon the tie bar **17**. If a fully tipped position is desired, as indicated by dotted lines at **31**, then the fulcrum members may be moved forwardly to the position shown at **32**, the back **1** engaging the tie bar **17**. It will be noted that there is quite a distance between the fulcrum position **32** and the position of engagement of the back with the tie bar **17**, with the result that the chair will remain in this position as long as the user of the chair may desire.

Thus, with the present invention, I am enabled to select either the upright position, or the reclining position of the

chair by the simple expedient of moving the fulcrum members on the tubular members **14** and **15**. I, therefore, do away with all types of locking devices, as presently used for holding a chair seat in a given position relative to a support.

I claim:

1. A chair including a support having spaced pairs of front and rear uprights, and aligned parallel horizontal members joining at equal height above a level supporting medium the front and rear uprights of each pair, there being front and rear transverse tie bars joining pairs of said uprights, a seat, and freely movable fulcrum members pivoted to sides of said seat and movable upon the horizontal members of the support, the said seat adapted for engagement with one or the other of said tie bars depending upon the position of the movable fulcrum members on said horizontal bars.

2. A chair including a supporting frame having a pair of spaced apart, parallel, horizontal members when on a level supporting medium, fulcrum members freely movable on each of said horizontal members, and a seat secured to said fulcrum members at approximately two-thirds of the distance from the front to the rear thereof.

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