May 25, 1954 F. B. EISEMAN 2,679,287

CHAIR

Filed Aug. 10, 1950

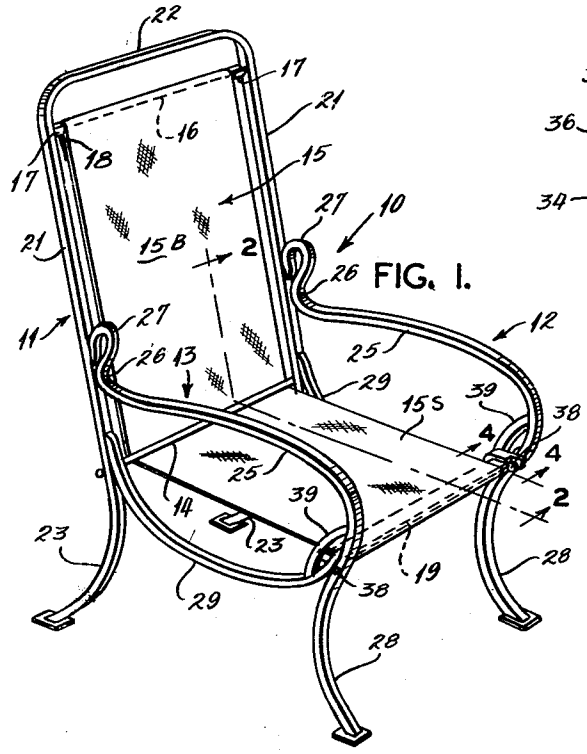


FIG. 1.

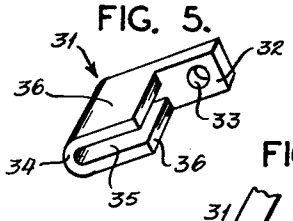


FIG. 5.

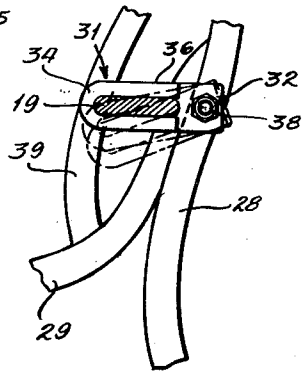


FIG. 4.

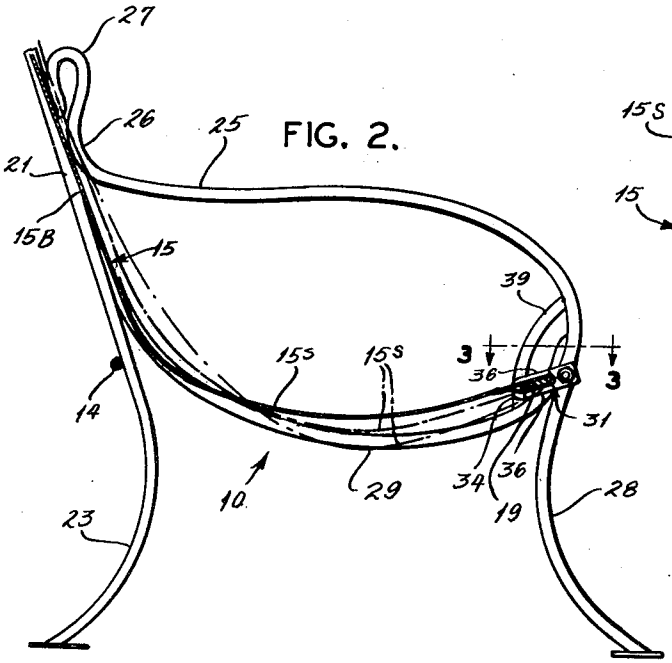


FIG. 2.

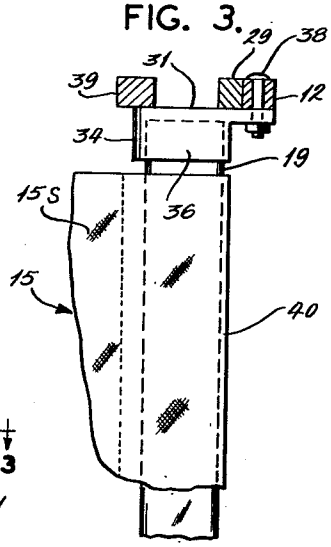


FIG. 3.

INVENTOR:
FREDERICK B. EISEMAN

By Carr & Carr & Gravely
ATTORNEYS

Patented May 25, 1954

2,679,287

UNITED STATES PATENT OFFICE

2,679,287

CHAIR

Frederick B. Eiseman, Clayton, Mo.

Application August 10, 1950, Serial No. 178,572

4 Claims. (Cl. 155—119)

1

This invention relates generally to chairs, and is more particularly directed to novel features and improvements in the type of chair which is generally used out-of-doors or as a lawn chair.

A principal object of the present invention is to provide a chair made of durable material which will permit the chair to remain exposed to the weather with a minimum of upkeep and use of protective coatings.

It is also an object of the present invention to provide an all metal type of chair having a simplified open frame work which is free of all unnecessary joints and parts, to the end that it will contribute to the durability of the chair and will provide a strong yet light weight, readily portable type of chair.

It is a further object of the present invention to provide, in a chair of the present character, means for the removable attachment of a fabric seat and back material, so that the fabric can be readily rolled into a neat package for storage.

It is a further object of the present invention to provide in a durable metal chair means permitting the ready removability of a suitable chair fabric material and to permit the interchangeability of one of several different types or styles of fabric material, thereby permitting the rapid interchange between a soiled chair fabric and a clean one, or for purposes of decoration.

It is still a further object of the present invention to provide improved means for the attachment of chair fabric materials and to arrange the attachment means to provide a dual purpose chair in which the fabric may be tensioned to provide a relatively tight or stiff seat and back surface, or in which the chair fabric may be secured in a relaxed or non-tensioned condition for converting the chair to one in which a person may lounge.

Still a further object hereof resides in the provision, in a chair of the present character, of detachable support members for the head and seat portions of a chair fabric and in the further provision of an adjustable mounting means for one of the support members whereby the chair fabric may assume a natural contour conforming substantially to the position of a person seated in the chair.

Further objects and advantages of the present invention will be pointed out in connection with a detailed description of a preferred embodiment thereof when considered in connection with the accompanying drawing wherein:

Fig. 1 is a perspective view of the presently preferred chair construction and in which the chair is disclosed with its fabric in tensioned condition,

2

Fig. 2 is an enlarged sectional elevational view as seen at line 2—2 in Fig. 1 and in which the fabric is shown in full line in its relaxed position,

Fig. 3 is a fragmentary and partly sectioned plan view of a chair fabric supporting member and the means provided therefor for obtaining adjustability of the member, the view being taken at line 3—3 of Fig. 2,

Fig. 4 is a further fragmentary elevational view of the adjustable mounting means disclosed at line 4—4 in Fig. 1, and

Fig. 5 is a perspective view of a typical adjustable mounting means.

Referring to the drawings by suitable characters of reference, the preferred embodiment of my invention comprises a chair frame assembly 10 having a back frame portion 11 and a pair of side frame portions 12 and 13 which are attached to the back frame portion 11 in the manner shown. The chair assembly also includes a cross member 14 attached to and carried by the back frame portion 11 adjacent to or near the location at which it is connected to the side frame portions 12 and 13. The chair is provided with a length of a suitable fabric material 15 attached to the back frame portion 11 of the chair by means of a support member 16 suitably carried by and detachably engaged at its ends in upwardly opening brackets 17. The support member 16 is adapted to be inserted within a suitable loop 18 formed at the end of the fabric material 15, and has its respective ends exposed for seating engagement within the bracket elements 17. The opposite or forward end portion of the chair fabric 15 is suitably attached to a mounting member 19, and the latter member is swingably or adjustably carried by and between the side frame portions 12 and 13 as will hereinafter be more fully described.

More specifically my improved chair comprises the back frame portion 11 consisting of generally vertically directed side rail elements 21 which are connected at their upper ends by an integral and horizontally directed head rail 22 and in which the opposite end portions of the side rails 21 are directed downwardly to form the rear legs 23 for the chair. The cross member 14 is, in the present embodiment, directly attached to the side rails 21 of the back frame 11 at substantially leg height.

The side frame portions of my improved chair are identical and accordingly a description of one thereof is deemed sufficient. With reference to Figs. 1 and 2, the side frame portion 12 is comprised of an arm rail 25 having its rearward end portion formed in an upturned portion 26

and a reverse loop 27 whereby to provide an extended or two point contact for suitable securement with the back frame side rail 21. The arm rail 25 continues forwardly and is desirably curved downwardly to a point where an integrally formed front leg 28 is provided, the point of transition being approximately the location of adjustable support member 19. It will be observed that the respective rear legs 23 and front legs 28 of the present chair are suitably curved in a direction to extend rearwardly and forwardly for increasing the stability of the chair. In addition each of the legs may be provided with a suitable ground contacting pad or plate, as shown, which is very desirable when the chair is used on a grass surface or in soft earth. Referring to Fig. 1, it is also to be noted that each of the side frame portions 12 and 13 is provided with a curved seat rail 29 attached at its rearward end to the side rail 21 of the back frame 11 and at its forward end to the front downwardly curved portion of the arm rail 12.

An important feature of the present invention resides in the swingable or adjustable mounting of the front support member 19. In the present embodiment, each of the side frame portions 12 and 13 of the chair frame assembly carries a stirrup-like bracket or support element 31 which is generally shown in Fig. 5. This bracket 31 is seen to include a forwardly projecting tongue 32 having an aperture 33 formed therein and a U-shaped laterally extending body portion 34 providing an open socket 35. It is here noted that the socket 35 of this stirrup-like element is defined between the flat side portions 36 of the body 34 so that the socket 35 has a length and depth which is considerably greater than the width or distance between the respective sides 36 of the body 34. The bracket 31 is adapted to be carried by a suitable pivot element 38 at the inner-side of the arm rail 12 (Fig. 3) and is so positioned that the socket 35 therein opens forwardly and inwardly relative to the chair seat area.

Support member 19 in the present embodiment is shown as a relatively flat bar suitably dimensioned to be received in and non-rotatively supported at its opposite ends in brackets 31. It should be understood that support member 19 may have any other suitable shape between its end portions, so long as the end portions are shaped to provide a non-rotative engagement in the bracket elements 31.

The side frame portions 12 and 13 are each provided with a guide rail 39 which is attached at its ends between the arm rail and the seat rail portions of the side frames. Each of the guide rails 39 is suitably curved or shaped so that it presents a surface against which the rearwardly extending body portion of an adjacent bracket element 31 may have sliding engagement during adjustable or swinging movement about the pivots 38. By so providing the guide rails 39 in the manner shown, it is obvious that the elements 31 will be held against wobble or lateral displacement and will be maintained free from any binding action on the pivot element 38 or between the pivot and the surface of the arm rail member adjacent thereto.

In Fig. 1 the chair fabric 15 is shown extended downwardly to pass under or behind the cross member 14 and then forwardly for removable attachment to the support member 19. The attachment of the fabric 15 at the member 19 is suitably effected through the provision of loop

40 therein. The mounting of the chair fabric 15 in the manner shown in Fig. 1 produces a tension or pull in the fabric so that it has a relatively stiff or unrelaxed seat and back area for substantially unyieldingly supporting a person sitting in the chair. The seat and back areas of the chair fabric 15 are herein designated 15S and 15B respectively.

Referring to Fig. 2 it can be seen that the chair fabric 15 may be directed to pass in front of or forwardly of the cross member 14 so that in the full line view of Fig. 2 the fabric has assumed a completely relaxed or naturally pendant position of support between the upper support member 16 and the forward support member 19. The broken line positions of the chair fabric 15 shown in Fig. 2 illustrate the action of the swingable forward support member 19 in its adjustable movement to assume a position substantially in line with the pull on the fabric due to various positions assumed by a person seated in the chair. The pivoting movement of each of the clip members 31 is illustrated in connection with Fig. 4, and the broken line positions in Fig. 4 correspond substantially with the respective broken line positions of the chair fabric disclosed in connection with Fig. 2.

It should now be obvious that the chair fabric can be removed without trouble by the simple expedient of drawing the support member 19 forwardly until it is free of the sockets 35 in brackets 31. Thereafter, the upper support member 16 may be lifted from its end brackets 17, and the two support members may be rolled together with the chair fabric for storage, should it be necessary to protect it or keep the fabric clean during inclement weather. Since the chair fabric can be removed, the chair can be left in the open and therefore it is made out of relatively indestructible material or of material capable of resisting deterioration in any kind of weather. It also should be pointed out that the adjustability of the forward support member 19 is a great improvement over the fixed type of a support member usually found in chairs of a similar character. The advantage to be obtained in the provision of a swingable or adjustable type of support member resides in the ease by which the chair fabric conforms itself to the posture of a person seated in the chair when the fabric is suspended free of contact with the cross member 14, and of tensioning the fabric in its normal plane of pull when the fabric is passed behind the cross member 14. Moreover, the adjustable member 19 can easily and naturally assume a position conforming to and comfortably fitting in the back of the knee when a person is seated in the chair. In other words, the member 19 conforms to the bent knee position in a most natural manner.

What I claim is:

1. In a chair, a frame assembly having a back frame portion and connected side frame portions, a stirrup-like bracket element pivotally connected to each of said side frame portions at the front thereof, said bracket elements being in aligned relation, a support member removably received in said stirrup-like bracket elements, chair fabric having its front end carried on said support member, said fabric extending backwardly to form a chair seat and generally upwardly to form a chair back in the back frame portion, a second support member seated in said back frame portion and adapted to carry the upper end of the fabric, and a guide element fixed to each

side frame portion adjacent each of said pivoted stirrup-like bracket elements to present a surface along which said stirrup-like bracket elements slide during pivoting movement to arrest lateral movement of said stirrup-like bracket elements.

2. In a chair, a frame assembly comprising a back frame and connected side frame portions together defining the back and seat areas of the chair, a stirrup-like bracket element swingably connected at the forward end of each of said side frames, each of said stirrup-like bracket elements having a socket defined by flattened wall portions, a support member having its ends received in the sockets of said bracket elements, said bracket elements being adapted to permit swinging movement of said support member, a guide element fixed to each side frame portion adjacent each of said swingable stirrup-like bracket elements to present a surface along which said stirrup-like bracket elements slide during swinging movement to arrest lateral movement of said stirrup-like bracket elements, a second support member removably seated in said back frame, and chair fabric carried between said support members and positioned thereby to form the back and seat for the chair.

3. In a chair, a back frame portion, side portions connected to the back frame portion and spaced transversely of the chair, a pair of stirrup-like bracket elements each comprising a body formed to provide a socket and a tongue extending from one side of the socket, each stirrup-like bracket element being disposed with the side of the tongue thereof opposite from the socket positioned against the inner side of a side portion and the other side of the socket being open, a pivot between each tongue and the adjacent side portion for free swinging of the stirrup-like bracket element, said pivots being aligned transversely of the chair, an elongate flat support disposed between the stirrup-like bracket elements and having its ends non-rotatively removably engaged in the sockets through said open sides thereof to swing therewith about the axes of said aligned pivots, a second support carried in said back frame above said side frame portions, chair fabric carried between said supports and normally assuming a position providing chair seat and back areas, and a guide carried by each side portion for engagement by the adjacent stirrup-like bracket element to restrain the stirrup-like bracket element against lateral movement while swinging in response to varying pulls applied to the fabric by an occupant of the chair.

4. The invention according to claim 3, wherein each of said guides comprises a curved rail secured to the chair side portion with its arc substantially conforming to the arcuate path followed by the socket portion in the swinging of the stirrup-like bracket element.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
614,235	Palmer	Nov. 15, 1898
917,601	Heinrichs	Apr. 6, 1909
1,876,479	Weller	Sept. 6, 1932
1,885,269	Kraner	Nov. 1, 1932
2,200,881	Fry	May 14, 1940
2,547,559	Briggs	Apr. 3, 1951

FOREIGN PATENTS

Number	Country	Date
603,334	Great Britain	June 14, 1948