Oct. 1, 1940. I. KARISH 2,216,316

CHAIR

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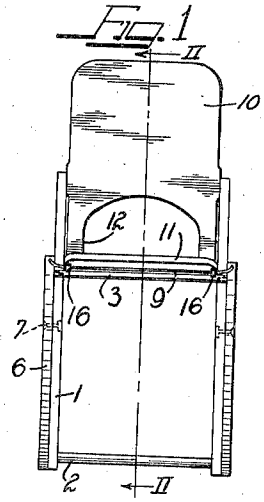


Fig. 1

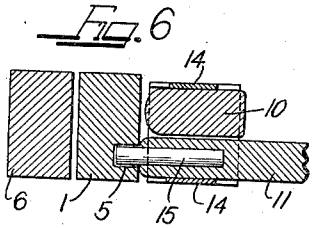


Fig. 6

Fig. 2

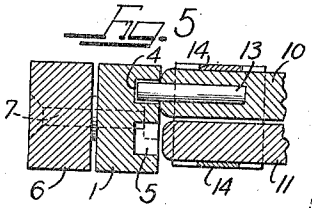


Fig. 5

Fig. 4

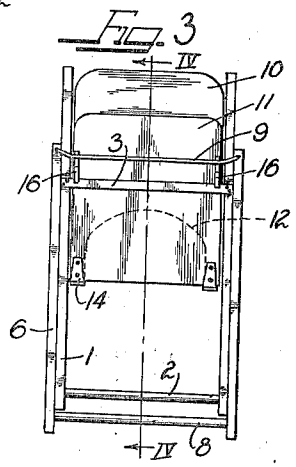


Fig. 3

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2,216,316

CHAIR

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2 Claims. (Cl. 155—144)

This invention relates to a folding chair, and more particularly to a chair which is adapted not only to be folded but is also adapted to be longitudinally collapsed when in folded position, thereby providing a construction requiring less storage space than the ordinary folding chair, and furthermore providing a chair which when folded and longitudinally collapsed may be conveniently handled and carried, and which, if desired, may be carried in a holder or case of a length materially less than that which would be required for the ordinary collapsible chair when folded.

It is an object of this invention to provide a combination folding and collapsing chair of simplified and inexpensive construction, which from an erected position may be conveniently and rapidly folded and then longitudinally collapsed.

It is also an object of this invention to provide a chair of the folding type, which when not in use can be conveniently folded, after which the seat and back are slidably lowered with respect to the legs to afford a compact construction.

It is a further object of this invention to provide a chair of the folding type having the seat and back hingedly connected together to contact one another when the chair is in folded position, allowing both the seat and back to be slidably moved with respect to the chair legs to reduce the normal folded height or over-all length of the chair when not in use.

It is furthermore an object of this invention to provide a combination folding and collapsible chair wherein both the seat and back have separate sliding interfitting relationship with a pair of the chair legs, allowing the chair when folded to have the seat and back moved into contact with one another and slidably lowered with respect to the chair legs.

It is an important object of this invention to provide an improved type of combination folding and collapsible chair of inexpensive and simple construction having pivotally connected short and long legs, said long legs having shiftably engaged therewith hingedly connected seat and back members whereby the chair when folded may have the height or length thereof reduced by slidably shifting the seat and back with respect to the length of the chair.

Other and further important objects of this invention will be apparent from the disclosures in the specification and the accompanying drawing.

The invention (in its preferred form) is illustrated in the drawing and hereinafter more fully described.

In the drawing:

Figure 1 is a front elevational view of a folding and collapsible chair embodying the principles of this invention.

Figure 2 is an enlarged vertical detail sectional view taken on the line II—II of Figure 1, with the chair set up for use.

Figure 3 is a reduced front elevational view of the chair in folded and collapsed form.

Figure 4 is an enlarged sectional view taken on the line IV—IV of Figure 3, illustrating the folding operation of the chair in dotted lines before the collapsed seat and back are lowered with respect to the chair legs.

Figure 5 is an enlarged fragmentary detail section taken on the line V—V of Figure 4.

Figure 6 is an enlarged fragmentary detail section taken on the line VI—VI of Figure 4.

As shown in the drawing:

The improved combination folding and collapsing chair comprises a pair of long or main legs 1 which are connected at their lower ends by means of a transverse front rung or round 2. Also connecting the two main legs 1, intermediate the ends thereof, is a transverse supporting bar or cross strip 3 which connects and braces the intermediate portions of the two main legs 1.

The inner side of each of the main legs 1 is provided with an upper or chair back guide groove 4 and with a lower or chair seat guide groove 5, as clearly illustrated in Figure 2. Pivotally connected to each of the main or long legs 1, on the outer sides thereof, is an auxiliary or shorter leg 6, by means of a pivot bolt 7 or the like. The lower ends of the two auxiliary or shorter legs 6 are connected by means of a rear brace rung or round 8. The upper ends of the two shorter legs 6 are connected by a brace or tie rod 9, which when the chair is in extended or open position for use, serves as a front support for the chair seat.

Associated with the long legs 1 is a chair back 10 and a chair seat 11. The chair back 10 is provided with an arched lower opening 12. Rigidly engaged in the opposite side edges of the chair back 10 are pivot and guide pins 13, the projecting ends of which project into the upper guide grooves 4 provided in the long legs 1 of the chair. As clearly illustrated in Figure 2, the lower margin of the chair back 10 is hingedly or pivotally connected to the rear margin of the chair seat 11 by means of hinges 14. Rigidly

secured to the side margins of the chair seat 11 and projecting outwardly therefrom are oppositely positioned guide pins or pintles 15, the ends of which project into the lower guide grooves 5 provided on the inner sides of the long legs 1 of the chair.

Secured to the bottom of the chair seat 11, near the front end thereof, are two hook brackets 16 adapted, when the chair is opened up as illustrated in Figures 1 and 2, to releasably hook or engage over the front brace rod 9 connecting the upper ends of the shorter or auxiliary legs 6 of the chair. When the chair is folded and ready to be collapsed, as illustrated in full lines in Figure 4, the hook members 16 engage over the cross bar 3 connecting the long or main chair legs 1. When the chair is opened or set up for use, as illustrated in Figures 1 and 2, the respective sets of legs 1 and 6 cross one another, with the main legs 1 projecting downwardly and forwardly while the auxiliary legs 6 project from the bottom of the seat 11 downwardly and rearwardly. When the chair is opened up for use, the hook brackets 16, as the seat drops into position, engage over the brace rod 9, thereby affording a means for limiting the spread of the cross chair legs, assisted by the guide pins 13 of the chair back 10, as said guide pins reach the upper end of the guide groove 4.

With the chair in open position, the rear portion of the seat 11 rests upon the cross brace 3 connecting the legs 1, thereby providing a double support for the seat 11. When the chair is not needed, the same may be readily folded and then collapsed into a compact form, requiring very little space for storage. To collapse the chair, it is only necessary to swing the lower end of the back forwardly and at the same time swing the seat 11 upwardly into contact with the back 10, as shown in dotted lines in Figure 4, after which the seat and back by their own weight are adapted to slide downwardly between the main legs 1 until the guide pins or pintles 15 of the chair seat reach the lower ends of the guide slots 5, in which position the hook brackets 16 on the bottom of the chair seat 11 engage over the brace bar 3. It will thus be noted that the chair is first folded and then collapsed to shorten the assemblage by permitting the folded seat and back to be dropped from the uppermost position thereof, illustrated in dotted lines in Figure 4, downwardly between the legs of the chair to materially shorten the height or over-all length of the combination folding and collapsing chair. As the chair is being folded and collapsed, the auxiliary or short legs 6 of the chair, being released by the brackets 16, pivotally swing, by the action of gravity, into position adjacent the outer surfaces of the main legs 1 to provide a collapsed structure wherein all of the members of the chair are positioned in substantially the same plane.

It will thus be seen that an improved type of chair is provided adaptable for use as a beach chair, a camp chair, a card table chair and one readily adaptable for many other uses. One of the important features of the chair is the shortening of the over-all length of the chair when in collapsed position, by the dropping of the collapsed seat and back downwardly between the long legs of the chair and after the initial folding operation has been accomplished. The telescoping of the seat and back downwardly between the legs of the chair materially reduces the over-all length of the collapsed chair, permitting the chair to be more conveniently handled and adapting it to be conveniently placed in a suitcase, a carton or the like of a size materially smaller than would be required for the reception of the ordinary type of folding chair which, when folded, is materially higher than the height of the chair when in open position.

It will, of course, be understood that many features of construction may be varied through a wide range without departing from the principles of this invention, and it is, therefore, not the purpose to limit the patent granted hereon otherwise than is necessitated by the scope of the appended claims.

I claim as my invention:

1. A chair foldable from an open to a folded position, said chair comprising a pair of relatively long main legs having side grooves formed therein, a chair back provided with guide means entered in certain of said grooves, a chair seat provided with guide means entered in certain other of said grooves, hinge means connecting the rear of said seat with the lower end of said back, a pair of relatively short legs pivotally connected to said long legs and disposed in crossed relation thereto when the chair is in open position, and means detachably connecting the upper end of said short legs with said seat when the chair is in open position.

2. A chair foldable from an open to a folded position, said chair comprising a pair of relatively long main legs having means defining side channels, a chair back provided with guide means thereon and positioned intermediate the upper and lower ends thereof, said guide means being entered in certain of said channels, a chair seat, hinge means connecting the rear of said seat with the lower end of said back, guide means on said seat and adjacent the rear end thereof entered in certain other of said channels, a bracket on said seat, a pair of relatively short legs pivotally connected to said long legs and disposed in crossed relation thereto when the chair is in open position, and means on the upper end of said short legs removably entered in said bracket when the chair is in open position.

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