May 26, 1953 L. L. WESTCAMP 2,639,762

FOLDING CHAIR

Filed May 9, 1949

Fig. 1

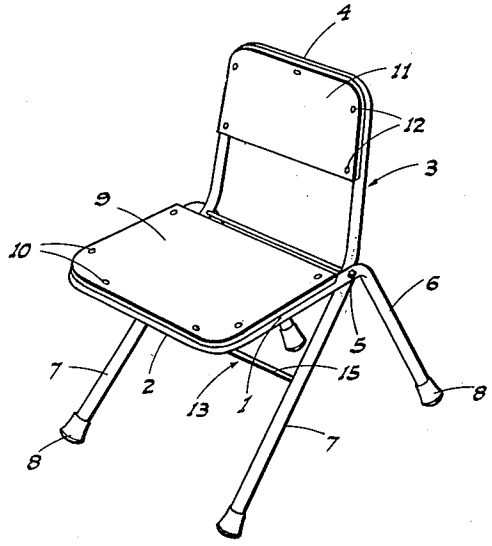


Fig. 2

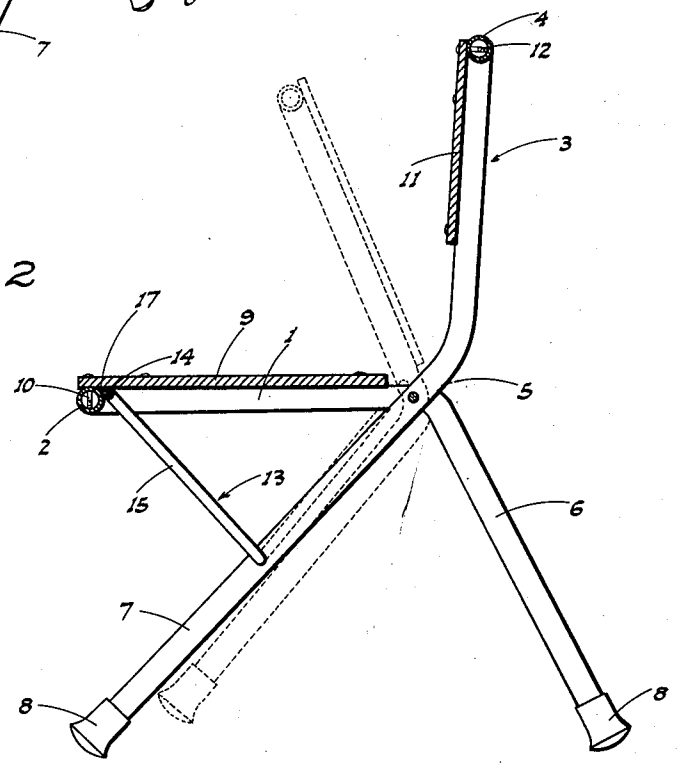
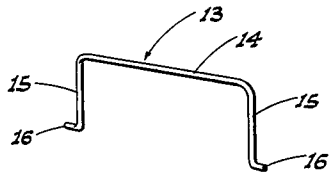


Fig. 3



INVENTOR

L. L. Westcamp

BY Wright Wright

ATTORNEYS

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FOLDING CHAIR

Leslie L. Westcamp, Fair Oaks, Calif.

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2 Claims. (Cl. 155—143)

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This invention relates generally to folding chairs, and in particular it is an object to provide a chair of this type which is strong, rugged, stable, and yet light weight for ease of movement from place to place.

Additionally, the chair embodies a folding frame of novel construction, such frame being formed mainly of tubular metal which not only affords strength to said frame, but also imparts an attractive appearance thereto.

A further desirable feature of the folding chair is the simplicity of its structure, the chair being designed for ease and economy of manufacture.

Another feature of the present invention resides in a novel brace which assures of rigidity of the chair when unfolded and in use, such brace effectively preventing collapse of the chair under the weight of an occupant.

It is also an object of the invention to provide a chair, as above, which is compact when folded, the brace normally projecting upwardly and outwardly from the front legs to the seat beneath the latter, but being swingable to an out-of-the-way position against said legs when the chair is folded.

A further object of the invention is to provide a practical and convenient folding chair, and one which will be exceedingly effective for the purpose for which it is designed.

These objects are accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings:

Fig. 1 is a perspective view of the chair unfolded for use.

Fig. 2 is an enlarged sectional elevation of the same, the folded position being shown in dotted lines.

Fig. 3 is a perspective view of the brace, detached.

Referring now more particularly to the characters of reference on the drawings, the folding chair comprises a normally horizontal seat frame 1, said seat frame being U-shaped, rearwardly opening, and including a front cross bar 2.

The numeral 3 indicates a normally upstanding, U-shaped, downwardly opening back frame which includes a top cross bar 4.

The seat frame 1 and back frame 3 are pivoted together at adjacent ends by a cross rod 5 for folding toward each other, i. e. for folding of the seat frame 1 from its full-line position to its dotted-line position in Fig. 2.

A pair of transversely spaced, normally rearwardly and downwardly inclined rear legs 6 are formed as rigid integral extensions of opposite

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sides of the seat frame 1. Similarly, a pair of transversely spaced front legs 7 are formed, as rigid integral extensions of opposite sides of the back frame 3, and thence extend at a forward and downward incline.

The rear legs 6 and the front legs 7 thus normally diverge in a downward direction, at which time the seat frame 1 is substantially horizontal, and the back frame 3 substantially vertical.

The frames 1 and 3, with the legs 6 and 7, respectively, are thus each formed of one length of material, here light-weight aluminum alloy tubing or the like.

The lower ends of the legs 6 and 7 are fitted with anti-slip tips or feet 8.

The seat frame 1 has a flat rigid seat 9 secured thereto, as at 10, while the back frame 3 has a flat back 11 secured thereto, as at 12. The seat 9 and back 11 are preferably of relatively thin but stiff material, such as "Masonite." The numeral 13 indicates generally a U-shaped brace which includes a top bar 14, legs 15, and short trunnions 16 which project laterally in opposite directions from the free ends of said legs 15.

The trunnions 16 engage in holes formed in the front legs 7, on adjacent sides, intermediate the ends of such legs. The U-shaped brace 13 normally extends at a forward and upward incline from the front legs 7, with the top cross bar 14 engaged or abutting the bottom of the seat 9 and the adjacent portion of the rear face of the front cross bar 2, as at 17.

The brace 13, when disposed as above described, acts with effective leverage to prevent downward collapse of the chair from its normal position as in Figs. 1 and 2, i. e. secures the chair assembly against the pairs of legs 6 and 7 separating beyond their normal and intended position of use.

When it is desired to fold the chair for carrying from place to place, or for storage, the seat frame 1 and back frame 3 are folded toward each other until the rear legs 6 and front legs 7 are disposed in substantial parallelism. The U-shaped brace 13 is then swung from its normal working position at a forward and upward incline, rearwardly to a position substantially parallel to the folded legs, as shown in dotted lines in Fig. 2. As can be determined from Fig. 2, the length of the legs 15 of brace 13 is such that when the brace is thus swung back it will overlie and rest on cross rod 5, which thus prevents the brace from swinging on the trough.

As so folded the chair is quite compact, and is easy to carry, or to stack with others in storage.

While the above described chair is designed especially for children's use in kindergartens,

schools, churches or the like, said chair is not limited to such use and may be manufactured in a size for adults.

From the foregoing description it will be readily seen that there has been produced such a device as substantially fulfills the objects of the invention, as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described the invention, the following is claimed as new and useful, and upon which Letters Patent are desired:

1. A folding chair comprising a normally substantially horizontal seat frame, a normally upstanding back frame, said frames being generally U-shaped and opening rearward and downward, respectively, means pivotally connecting said frames at adjacent ends for folding toward each other, transversely spaced rear legs integral with and being extensions of opposite sides of the seat frame, transversely spaced front legs integral with and being extensions of the back frame, the front and rear legs normally diverging downwardly but being swingable into a substantially parallel position upon relative folding of said frames toward each other, a rigid seat secured on the seat frame, a back secured on the back frame, and a brace normally extending from the front legs at an upward and forward incline and including an upper cross member to engage in the transverse corner formed between the bottom of the seat and the rear of the front portion of the seat frame; the brace including side legs depending from the cross member and pivoted at their lower end on the front legs and the pivot means of the frames comprising a cross rod; the length of the side legs being greater than the distance between said cross rod and the point of pivotal connection of the brace legs with the front legs whereby said side legs may rest against the cross rod when the brace is folded.

2. A folding chair comprising a normally substantially horizontal seat frame, a normally upstanding back frame straddled by the seat frame, said frames being generally U-shaped and opening rearward and downward, respectively, a cross rod pivotally connecting said frames at adjacent ends for folding toward each other, transversely spaced rear legs integral with and being extensions of opposite sides of the seat frame, transversely spaced front legs integral with and being extensions of the back frame, the front and rear legs normally diverging downwardly but being swingable into a substantially parallel position upon relative folding of said frames toward each other, a rigid seat secured on the seat frame, a back secured on the back frame, and a generally U-shaped brace connected at its ends to corresponding front legs intermediate the ends of the latter and thence normally extending at a forward and upward incline to abutment with the bottom of the seat and the rear of the front portion of the seat frame; the brace being pivotally connected to the front legs for rearward swinging to a substantially parallel position relative thereto and at a point relative to the cross rod such that when the brace is thus swung rearwardly, it may rest against said cross rod.

LESLIE L. WESTCAMP.

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