

Dec. 3, 1935.

H. L. LA FETRA

2,023,234

COLLAPSIBLE CHAIR

Filed Jan. 29, 1935

2 Sheets-Sheet 1

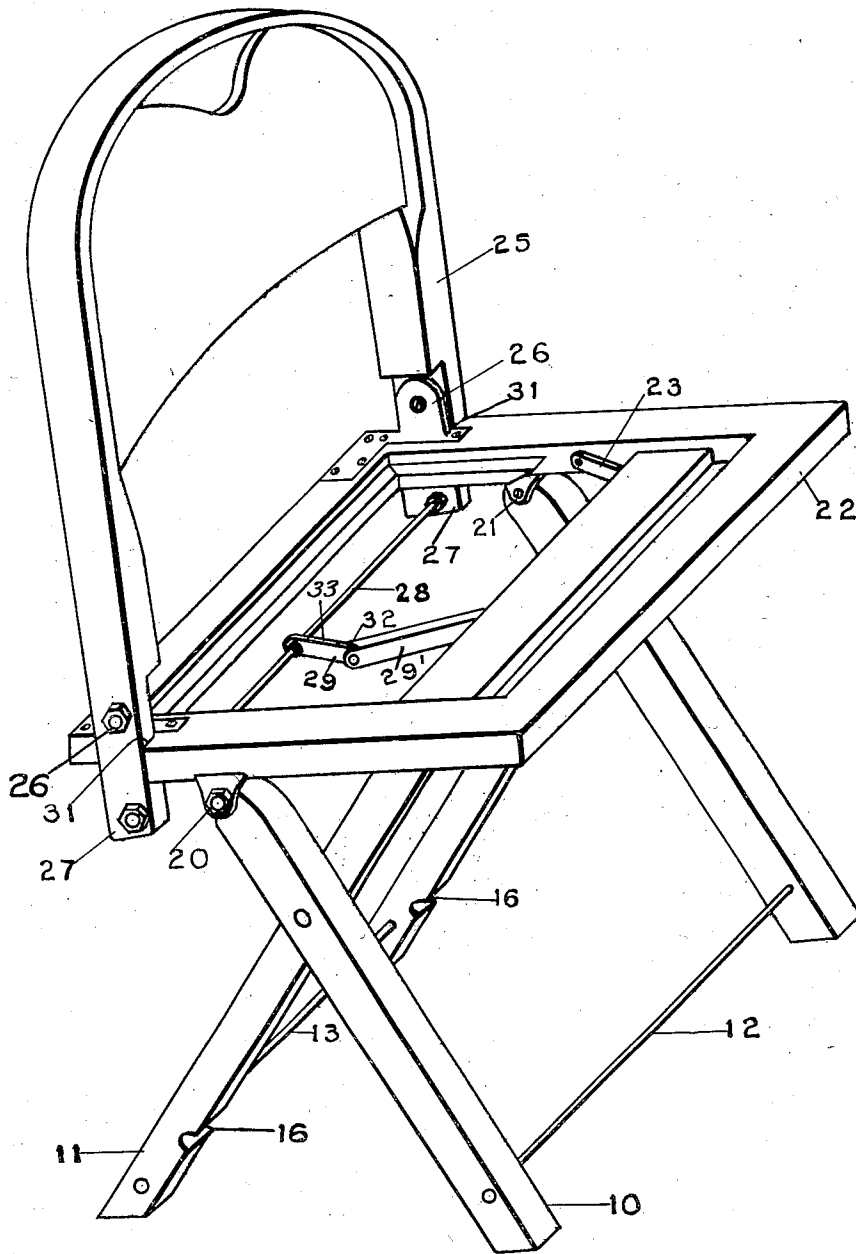


Fig. 1

INVENTOR.
Harry L. LaFetra
BY *Fred H. Schuch*
ATTORNEY

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FIG. 2

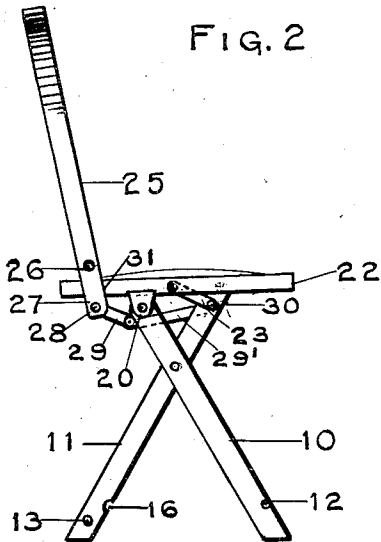


FIG. 3

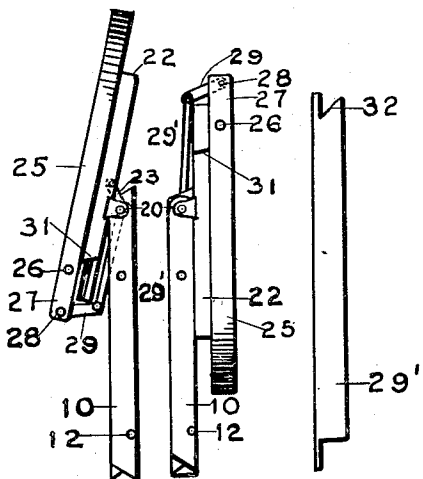
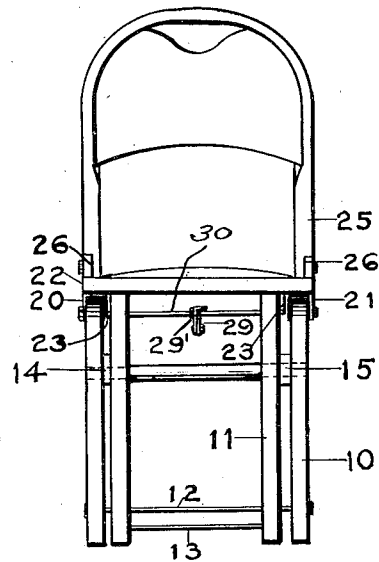


FIG. 4

FIG. 5

FIG. 7

FIG. 8

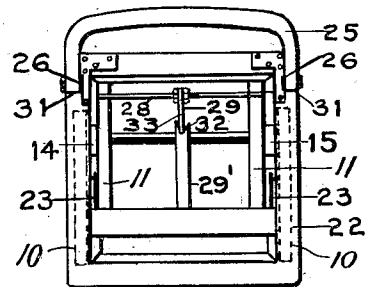


FIG. 6

INVENTOR.
Harry L. LaFetra
BY *Frederick E. Schuch*
ATTORNEY

UNITED STATES PATENT OFFICE

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COLLAPSIBLE CHAIR

Harry L. La Fetra, New York, N. Y.

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4 Claims. (Cl. 155—147)

The invention relates to chairs, more particularly the folding or collapsible type suitable for compact storage when desired.

It has for an object to simplify the construction of chairs of this character and the provision of a chair which may be folded to an extremely compact unit, occupying then a width corresponding substantially to the combined thickness of the back, seat and one leg of the chair, while the height of the unit is a minimum and corresponds substantially to the length of the back.

In carrying out the invention, as embodied in the novel collapsible chair shown and hereinafter more fully described, a pair of front legs is pivotally connected to a pair of rear legs intermediate their respective ends. To the upper ends of these two pairs of legs is connected for support a seat member, the same being pivotally attached at its rearward portion to the upper ends of the pair of front legs, while at its forward portion the seat member is linked to the upper ends of the pair of rear legs, the pivotal axes of the connections to the two pairs of legs coinciding when the pair of rear legs is folded within the plane of the pair of front legs. This will permit not only of the seat being swung upwardly about the upper ends of the front pair of legs, to collapse the chair, but will allow of the rear pair to be brought within the front pair and both swung over the under side of the seat about said coincident axes. Furthermore, a back member is provided at the rearward portion of the seat, being fulcrumed thereto along its sides with the ends of the back projecting beyond the fulcrum points and pivotally connected with the upper ends of the rear pair of legs through an articulated link for controlling the folding and unfolding of the pairs of legs.

The nature of the invention, however, will best be understood when described in connection with the accompanying drawings, in which:

Fig. 1 shows the novel chair in perspective with seat cushion removed.

Fig. 2 is a side elevation, and Fig. 3 a front elevation thereof.

Figs. 4 and 5 are side elevations of different stages in the collapse of the chair.

Fig. 6 is a plan view of the chair with seat cushion removed.

Figs. 7 and 8 are respectively a plan and elevation of one of the elements of a connecting articulated link member.

Referring to the drawings, 10 designates a pair of front legs and 11 a pair of rear legs, the mem-

bers of the respective pairs being preferably tied together near the feet by tie rods 12 and 13, respectively. These two pairs of legs, furthermore, are pivotally connected together intermediate their respective ends, as at 14 and 15, whereby the rear pair may be folded into the plane of the front pair; and in this position the tie rod 12 is designed to fit into sockets 16 of the other pair so that when pair 11 is swung upwardly, as hereinafter set forth, pair 10 will readily follow therewith.

At their upper ends, legs 10 are pivotally connected, as at 20 and 21, directly to a seat member 22 which is supported thereat and is designed also to be supported by the upper ends of the pair of rear legs 11, when both pairs are extended and as is indicated in Figs. 1 and 2 of the drawings. Provision is made, also, for pivotally connecting, at either side, the underside of the seat 22 to the upper ends of the pair of rear legs, for example, through link members 23. The arrangement of the two aforesaid pivotal connections between the seat and the upper ends of the said leg members is such that when the two pairs are folded into a common plane, the pivotal axes of the connections of the legs with the seat and links coincide.

By this expedient, it becomes possible to swing both pairs of legs over the under side of the seat 22 so as materially to reduce the height of the folded unit, as indicated in Fig. 5 of the drawings—Fig. 4 indicating the relative position of the parts, with the legs folded into a common plane, prior to the folding over of the two pairs of legs.

A back member 25 may be provided in connection with the folding seat arrangement hereinbefore described, the same to this end being pivotally connected at the rear and opposite sides of the seat, as indicated at 26. The back, furthermore, is provided with extensions 27 at either side of the seat beyond the corresponding pivotal points of the fulcrums afforded. These extensions, furthermore, are connected together by a transverse rod 28 extending below the seat 22 and which is connected through an articulated link member, embodying the elements 29 and 29', with a similar transverse rod 30 connecting the upper ends of the rear pair of legs. The back member may thus swing about its fulcrums to be brought to extend upright from the seat; and the articulated link member will accommodate itself to this location of the back which is positioned against abutments 31 provided by recessing the sides of the seat, as indicated, so

that when the chair is fully extended for use, as indicated in Figs. 1 and 2 of the drawings, the link elements 29, 29' will prevent the said back from collapsing over the seat.

5 The forward element 29' of the link member, moreover, is provided at the junction end with a lip 32 designed to engage the juxtaposed edge 33 of the rearward element 29 so that the link will tend to throw the rear legs backward into
10 position, as the back and seat are separated into their respective positions when the chair is opened. The articulated link, furthermore, throws the front and rear legs into a position adjacent to each other and in the same plane,
15 when the seat and back are brought together, when the chair is in a semi-collapsed position.

I claim:

1. A chair comprising a pair of front legs and a pair of rear legs pivotally connected together
20 intermediate their respective ends and the latter being adapted to be folded within the plane of the former, and a seat pivotally supported by the upper ends of the pair of front legs and linked to the upper ends of the pair of rear legs
25 to be supported thereby when the pairs of legs are extended, the pair of front legs being swingable about their pivotal connections to the seat and the pair of rear legs about their linkage thereto, the pivotal points of the linkage to the rear legs being so positioned as to bring the re-
30 spective pivotal axes of the connections of the legs with the seat and links into coincidence when the two pairs of legs are folded into a common plane whereby the said seat may be swung about the said axes, and a back pivotally connected to
35 the rear of said seat and adapted to abut a portion thereof for positioning the back, said back being swingable as a unit with the seat also about the said coinciding axes.

40 2. A chair comprising a pair of front legs and a pair of rear legs pivotally connected together intermediate their respective ends and the latter being adapted to be folded within the plane of the former, and a seat pivotally supported by
45 the upper ends of the pair of front legs and linked to the upper ends of the pair of rear legs to be supported thereby when the pairs of legs are extended, the pair of front legs being swingable about their pivotal connections to the seat and
50 the pair of rear legs about their linkage thereto, the pivotal points of the linkage to the rear legs being so positioned as to bring the respective pivotal axes of the connections of the legs with the seat and links into coincidence when the two
55 pairs of legs are folded into a common plane

whereby the said seat may be swung about the said axes, a back fulcrumed to the rear of said seat and adapted to abut a portion thereof for positioning the back, and an articulated link
5 connecting the back with the upper ends of the pair of rear legs.

3. A chair comprising a pair of front legs and a pair of rear legs pivotally connected together intermediate their respective ends and the latter being adapted to be folded within the plane of
10 the former, and a seat pivotally supported by the upper ends of the pair of front legs and linked to the upper ends of the pair of rear legs to be supported thereby when the pairs of legs are extended, the pair of front legs being swingable
15 about their pivotal connections to the seat and the pair of rear legs about their linkage thereto, the pivotal points of the linkage to the rear legs being so positioned as to bring the respective pivotal axes of the connections of the legs with
20 the seat and links into coincidence when the two pairs of legs are folded into a common plane whereby the said seat may be swung about the said axes, a back fulcrumed to the rear of said seat at its sides, having extensions beyond its
25 pivotal points, a transverse rod connecting said extensions below the plane of the seat, a transverse rod connecting the upper ends of the pair of rear legs, and an articulated link connecting said rods.
30

4. A chair comprising a pair of front legs and a pair of rear legs pivotally connected together intermediate their respective ends and the latter being adapted to be folded within the plane of the former, and a seat pivotally supported by
35 the upper ends of the pair of front legs and linked to the upper ends of the pair of rear legs to be supported thereby when the pairs of legs are extended, the pair of front legs being swingable about their pivotal connections to the seat
40 and the pair of rear legs about their linkage thereto, the pivotal points of the linkage to the rear legs being so positioned as to bring the respective pivotal axes of the connections of the legs with the seat and links into coincidence when
45 the two pairs of legs are folded into a common plane whereby the said seat may be swung about the said axes, a back fulcrumed to the rear of said seat, and an articulated link connecting the back with the upper ends of the pair of rear legs,
50 the forward element of said link connection having a lip for engagement with the rearward element.

HARRY L. LA FETRA.