Aug. 31, 1937. J. VAN DEN BOOGAARD 2,091,660

FOLDING CHAIR

Filed April 16, 1936

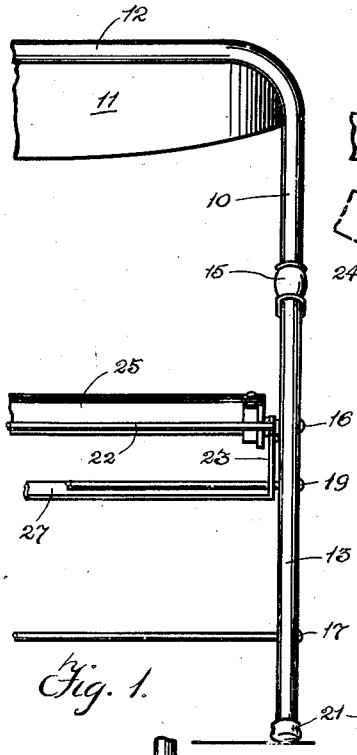


Fig. 1.

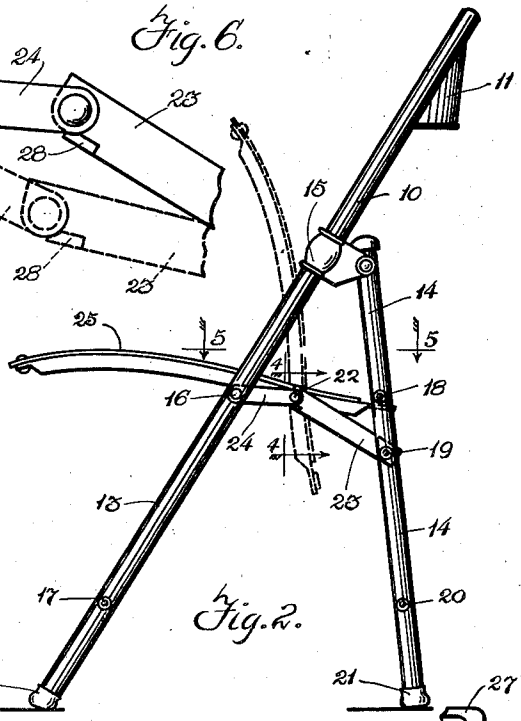


Fig. 2.

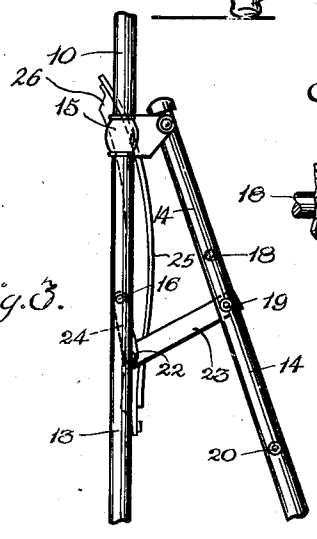
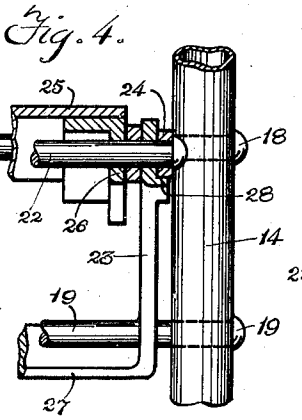


Fig. 3.



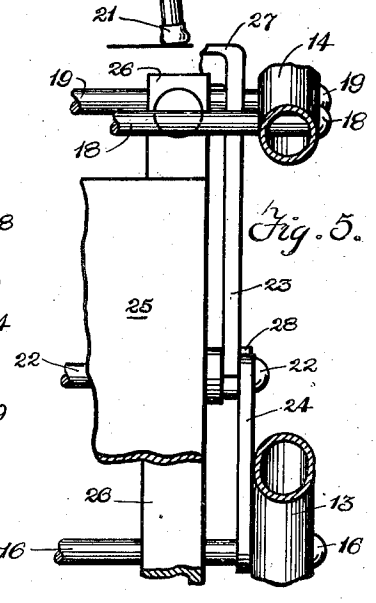


Fig. 5.

Witness:
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FOLDING CHAIR

John van den Boogaard, Grand Rapids, Mich., assignor to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey

Application April 16, 1936, Serial No. 74,645

4 Claims. (Cl. 155—142)

The present invention relates to folding chairs and more particularly to a modified construction of the folding chair illustrated and described in United States Letters Patent No. 1,939,596, issued December 12, 1933, on application filed March 29, 1933, by Ralph K. Merrill and by him assigned to my assignee.

The primary objects of the instant invention are to provide a chair of the character above set forth which is rugged and sturdy in construction; to provide such a chair which is noiseless in its folding and unfolding movements; to provide a chair, the occupant of which may not get pinched between nor have his clothes torn by the folding parts of the chair; and, to provide such a chair construction which is economical in manufacture, pleasing in appearance and utilitarian in use.

An illustrative embodiment of the invention is shown in the accompanying drawing, wherein:

Figure 1 is a fragmentary front elevational view of a folding chair in its unfolded position;

Figure 2 is a side elevational view of the chair in its unfolded position, the seat thereof being likewise shown swung upwardly in dotted lines;

Figure 3 is a fragmentary side elevational view of the chair frame in its partly folded position;

Figure 4 is an enlarged sectional view on line 4—4 of Figure 2;

Figure 5 is an enlarged sectional view on line 5—5 of Figure 2;

Figure 6 is an enlarged fragmentary view of the link construction showing in full lines, the link relation when the chair is in unfolded position and showing in dotted lines, the relation of the links when in their partly folded position.

Referring to the drawing in which like parts of the structure shown are designated by the same numerals in the several views, the folding chair generally comprises a U-shaped tubular frame 10, preferably of metal, forming a support for the back 11 positioned below the horizontally disposed medial portion 12 of the frame and suitably secured thereto and to the opposite vertically disposed portions thereof which form the spaced front legs 13.

A pair of tubular spaced rear legs 14, likewise preferably of metal, are each pivotally connected at their upper ends to a yoke or saddle 15 which embraces and is secured to each side of the frame member 10, as best shown in Figures 1–3.

The lower ends of the frame member which form the front legs 13 of the chair and rear legs 14 thereof are provided with horizontally disposed reinforcing or strengthening rods 16, 17, 18, 19 and 20 whose several outer ends pierce the legs on their inner sides and extend through to the outer sides of the legs where their respective ends are riveted to form heads. Each of the supporting legs is provided with noiseless foot caps 21 of rubber or other suitable material.

A seat supporting rod 22 is disposed in parallelism with and between the reinforcing rods 16, 18 and a pair of links 23 are each pivotally secured at one end to the reinforcing rod 19 which connects the rear legs 14 and each link 23 is likewise pivotally connected at its opposite end to the seat supporting rod 22. A second pair of links 24 are each pivotally secured at one end to the reinforcing rod 16 which connects the front legs 13 and each link 24 is likewise pivotally secured at its opposite end to the seat supporting rod 22.

A seat 25 is pivotally secured to the seat supporting rod 22 intermediate its opposite sides, its oppositely disposed supporting arms 26 forwardly of the seat supporting rod 22 being adapted to rest upon the reinforcing rod 16 when the chair is in its unfolded position and after the seat has been lowered from its position shown in dotted lines in Figure 2 to the position thereof shown in full lines in the same view, the supporting arms 26 rearwardly of the seat supporting rod 22 being adapted to project under and bear against the reinforcing rod 18, all as best shown in Figure 2.

The pair of links 23 are preferably secured together by an integrally formed intermediately disposed strut 27 lying below the reinforcing rod 19 and for strengthening purposes as best shown in Figure 4, each link 23 being likewise provided with a flanged lug 28 for limiting its movement relative to its link 24, as best shown in Figure 6.

It will thus be seen that the folding chair herein shown and described has its folding link portions all arranged beneath the seat and that clothing of the occupant cannot therefore be clamped between and torn in the folding operation of the chair.

While but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. In a folding chair, a U-shaped frame forming a back support and spaced front legs, a pair of spaced rear legs pivotally secured to said frame, a reinforcing rod secured at its opposite ends between said rear legs, a reinforcing rod secured at its opposite ends between said front

legs, a seat supporting rod disposed in parallelism with and between the reinforcing rods, a pair of links each pivotally secured at one end to the rear legs and each pivotally secured at its opposite end to the seat supporting rod, a second pair of links each pivotally secured at one end to the front legs and each pivotally secured at its opposite end to the seat supporting rod, and a seat pivotally secured to the seat supporting rod intermediate its opposite sides and whose opposite sides forwardly of the seat supporting rod are adapted to rest upon the reinforcing rod connecting the front legs and whose opposite sides rearwardly of the seat supporting rod are adapted to project under and bear against the reinforcing rod connecting the rear legs, when the chair is in unfolded position.

2. In a folding chair, a U-shaped frame forming a back support and spaced front legs, a pair of spaced rear legs pivotally secured to said frame, a reinforcing rod secured at its opposite ends between said rear legs, a reinforcing rod secured at its opposite ends between said front legs, a seat supporting rod disposed in parallelism with and between the reinforcing rods, a pair of links each pivotally secured at one end to the reinforcing rod connecting the rear legs and each pivotally secured at its opposite end to the seat supporting rod, a second pair of links each pivotally secured at one end to the reinforcing rod connecting the front legs and each pivotally secured at its opposite end to the seat supporting rod, and a seat pivotally secured to the seat supporting rod intermediate its opposite sides and whose opposite sides forwardly of the seat supporting rod are adapted to rest upon the reinforcing rod connecting the front legs and whose opposite sides rearwardly of the seat supporting rod are adapted to project under and bear against the reinforcing rod connecting the rear legs, when the chair is in unfolded position.

3. In a folding chair, a U-shaped frame forming a back support and spaced front legs, a pair of spaced rear legs pivotally secured to said frame, a reinforcing rod secured at its opposite ends between said rear legs, a reinforcing rod secured at its opposite ends between said front legs, a seat supporting rod disposed in parallelism with and between the reinforcing rods, a pair of links each pivotally secured at one end to the reinforcing rod connecting the rear legs and each pivotally secured at its opposite end to the seat supporting rod, a strut interposed and rigidly secured between said pair of links, a second pair of links each pivotally secured at one end to the reinforcing rod connecting the front legs and each pivotally secured at its opposite end to the seat supporting rod, and a seat pivotally secured to the seat supporting rod intermediate its opposite sides and whose opposite sides forwardly of the seat supporting rod are adapted to rest upon the reinforcing rod connecting the front legs and whose opposite sides rearwardly of the seat supporting rod are adapted to project under and bear against the reinforcing rod connecting the rear legs, when the chair is in unfolded position.

4. In a folding chair, a U-shaped frame forming a back support and spaced front legs, a pair of spaced rear legs pivotally secured to said frame, a reinforcing rod secured at its opposite ends between said rear legs, a reinforcing rod secured at its opposite ends between said front legs, a seat supporting rod disposed in parallelism with and between the reinforcing rods, a pair of links each pivotally secured at one end to the reinforcing rod connecting the rear legs and each pivotally secured at its opposite end to the seat supporting rod, said pair of links being secured together by an integrally formed strut, a second pair of links each pivotally secured at one end to the reinforcing rod connecting the front legs and each pivotally secured at its opposite end to the seat supporting rod, and a seat pivotally secured to the seat supporting rod intermediate its opposite sides and whose opposite sides forwardly of the seat supporting rod are adapted to rest upon the reinforcing rod connecting the front legs and whose opposite sides rearwardly of the seat supporting rod are adapted to project under and bear against the reinforcing rod connecting the rear legs, when the chair is in unfolded position.

JOHN VAN DEN BOOGAARD.