Feb. 5, 1935. K. G. JOHANSON 1,989,865

FOLDING CHAIR

Filed Sept. 23, 1932

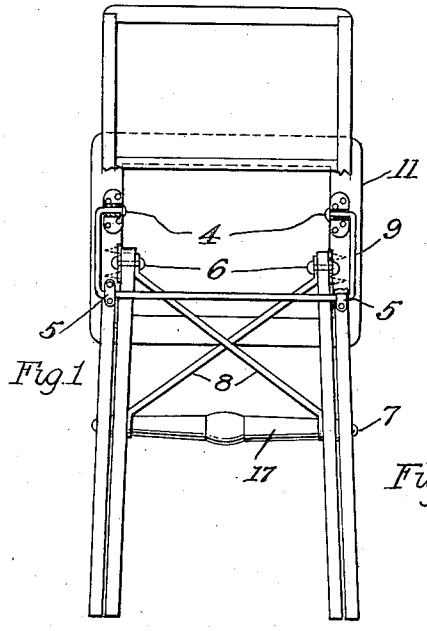


Fig.1

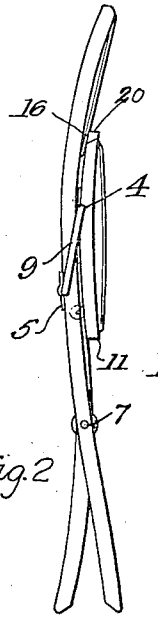


Fig.2

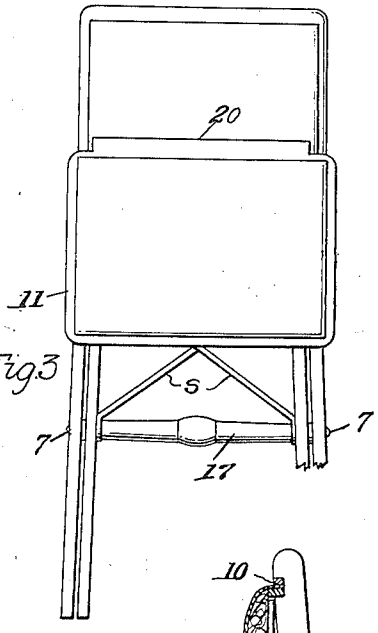


Fig.3

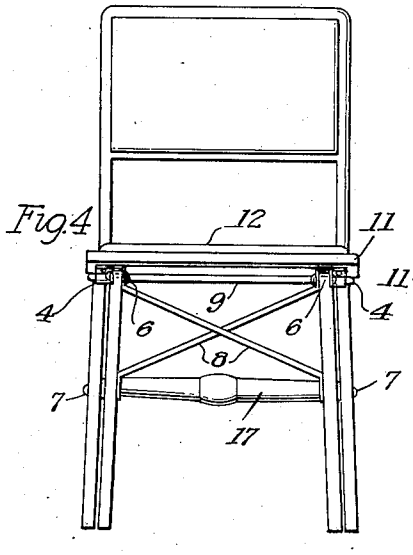


Fig.4

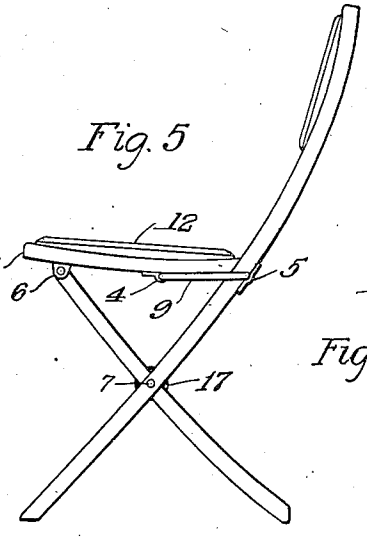


Fig. 5

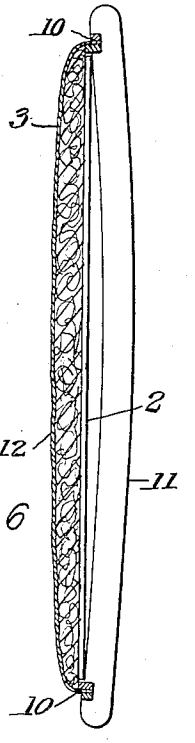


Fig.6

WITNESSES

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UNITED STATES PATENT OFFICE

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FOLDING CHAIR

Karl G. Johanson, Concord Junction, Mass.

Application September 23, 1932, Serial No. 634,624

3 Claims. (Cl. 155—143)

This invention relates to folding chairs, and it aims to devise an article of this character which will be exceptionally sturdy and substantial in construction and can be manufactured economically, while at the same time being comfortable, light in weight, and easy to handle.

The nature of the invention will be readily understood from the following description when read in connection with the accompanying drawing, and the novel features will be particularly pointed out in the appended claims.

In the drawing,

Figure 1 is a rear view of a chair embodying this invention, showing it in its folded position, some of the parts being broken away in order better to illustrate the details of construction;

Fig. 2 is a side view of the chair illustrated in Fig. 1;

Fig. 3 is a front view of the folded chair;

Figs. 4 and 5 are front and side views, respectively, of the chair in its extended or operative condition; and

Fig. 6 is a longitudinal, sectional view from front to rear through a portion of the seat, other parts of the seat being illustrated in section.

The construction shown comprises two pairs of crossed legs located at opposite sides of the chair, each pair including a front leg and a rear leg. Each front leg is extended upwardly to support the back cushion or pad and these legs are connected at their upper ends by one or more cross bars. Pivot pins or screws, or a pivot rod, the ends of which are indicated at 7—7, connect the front and rear legs together for relative swinging movement about a single axis, these pins or screws extending into the opposite ends of a horizontal bar 17 that connects the pivot points of the two legs. In order to stiffen the chair against racking, two braces 8—8 are connected to the rear legs at the two pivot points and extend upwardly and diagonally to the upper ends of said legs, where they are connected to said legs at the points 6—6.

The chair seat comprises a solid substantially air tight bottom or body 11 curved from front to rear so that its central portion is depressed or lies below the plane of the ends, and a resilient bottom 2, the front and rear ends of which rest on the front and rear portions of the body 11 but which normally is otherwise free from the body 2. A cushion, including a pad 3, rests on the bottom 2, and a substantially air tight cover 12 encloses the pad and bottom 2 and is sealed and secured at its edges to the body 11 in any desired manner, as for instance by a spring wire 10. In this construction the weight of a person does not increase the strain on the cover 12 but, instead, reduces such strain.

This seat is pivoted at the points 6—6 to the upper ends of the rear legs. It is also pivoted at the points 4—4 to the forwardly extending arms of an approximately U-shaped coupling rod 9 which is pivoted to the front legs by means of the clips 5—5, this rod extending across the entire back of the chair horizontally and embracing the upwardly extending portion of both of the front legs. Due to this arrangement the coupling rod serves not only to connect the seat to the back by means of two links at the opposite sides of the chair, but it also serves to bind the two front legs to each other and to effectually resist any tendency for them to spread. In addition, the horizontal portion of this rod which extends across the back of the chair serves as a stop or rest for the rearward edge of the seat. In other words, this part of the seat is provided with an extension 20, Fig. 3, which rests on the rod 9 when the chair is in its unfolded or extended condition. This extension is slightly narrower than the space between the upwardly extending portions of the front legs so that it can slide up and down freely toward and from the stationary portion of the rod.

It should be noted that when the chair is in its folded condition, as shown in Fig. 2, it will stand upright without lateral support due to the fact that the center of gravity of the chair lies above the area outlined by the lower ends of the four legs. This often is an advantage in stacking these chairs when they are not in use. Due to the seat construction and to the general features of design, the chair is exceptionally comfortable for a folding chair, and because of the bracing and the manner in which the coupling rod 9 is associated with the other parts, the chair is exceptionally sturdy. At the same time the design is such that it can be manufactured economically.

Having thus described my invention, what I desire to claim as new is:

1. In a folding chair, the combination of crossed legs at opposite sides of the chair arranged in pairs with one front leg and one back leg constituting a pair, means for securing said legs together in crossed relationship to swing on the same axis, a horizontal bar connecting the intersecting pivot points of said legs, a seat pivoted to the upper ends of the rear legs, the front legs being extended upwardly and rearwardly to support the back of the chair, and a coupling rod embracing the upwardly extending portions of both

front legs and pivoted thereto and extending across in back of the chair, said rod having forwardly extending portions pivotally connected to said seat, the rear of said seat being adapted to rest on said coupling rod when the chair is in its unfolded or extended condition.

2. In a folding chair, the combination with crossed legs at opposite sides of the chair, of a seat pivoted to the upper ends of the legs and comprising a solid body curved to provide a central depressed portion, a resilient bottom supported at its front and rear ends on said solid body and spanning said depressed portion but normally free from it, and a cushion supported on said bottom and an air tight cover for said cushion, and means for hermetically securing said cover at its edges to the bottom.

3. In a folding chair, the combination of crossed legs at opposite sides of the chair arranged in pairs with one front leg and one back leg constituting a pair, means for securing said legs together in crossed relationship to swing on the same axis, a horizontal bar connecting the intersecting pivot points of said legs, a pair of crossed diagonal braces connecting said pivot points with the opposite upper ends of the rear legs, a back rest, a seat pivoted to the upper ends of the rear legs, the front legs being extended upwardly and rearwardly to support the back rest of the chair, and a coupling rod embracing the upwardly extending portions of both front legs and pivoted thereto and extending across in back of the chair, said rod having forwardly extending portions pivotally connected to said seat, the rear of said seat being adapted to rest on said coupling rod when the chair is in its unfolded or extended condition.

KARL G. JOHANSON.

CERTIFICATE OF CORRECTION.

Patent No. 1,989,865. February 5, 1935.

KARL G. JOHANSON.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 1, second column, line 51, claim 1, after "legs," insert the words and comma a back rest,; and line 54, after "back" insert the word rest; page 2, first column, line 9, claim 2, before "legs" insert rear; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 12th day of March, A. D. 1935.

Leslie Frazer

Acting Commissioner of Patents.

(Seal)