Sept. 21, 1926. 1,600,248

A. E. ROSENTHAL ET AL

FOLDING CHAIR

Filed May 13, 1925 2 Sheets-Sheet 1

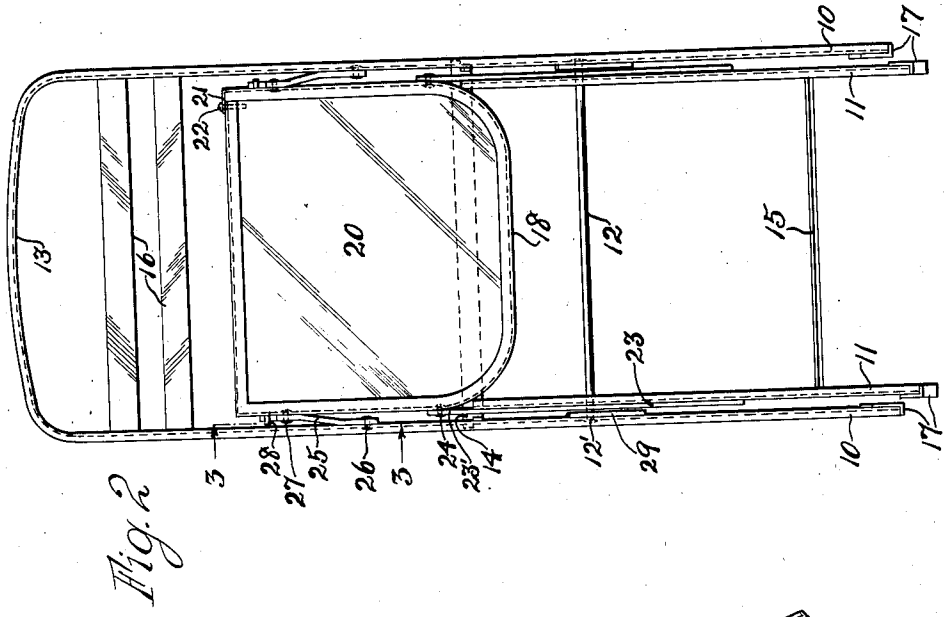


Fig. 2

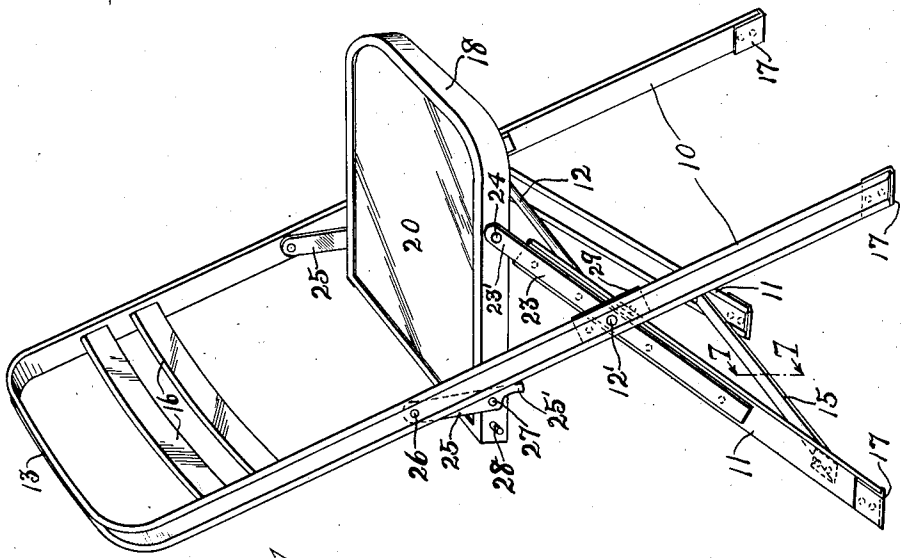


Fig. 1

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Fig. 4

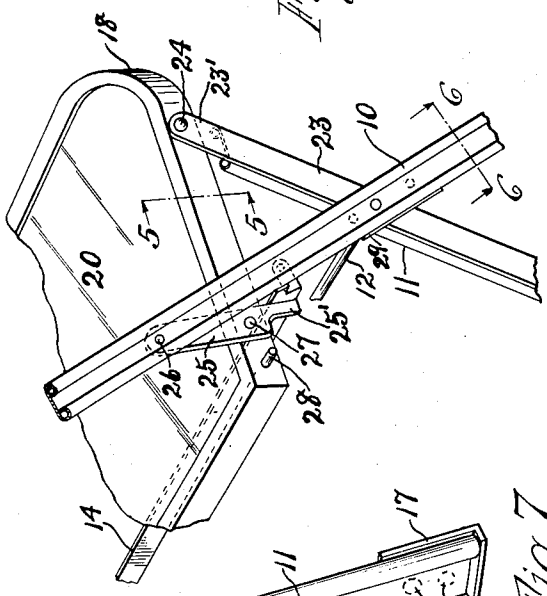


Fig. 6

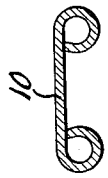


Fig. 5

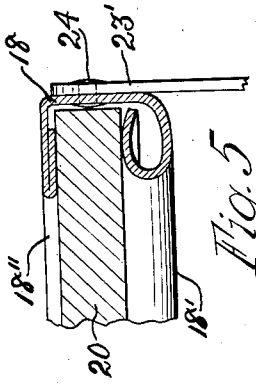


Fig. 7

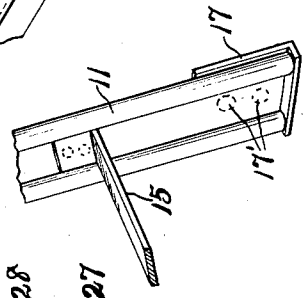
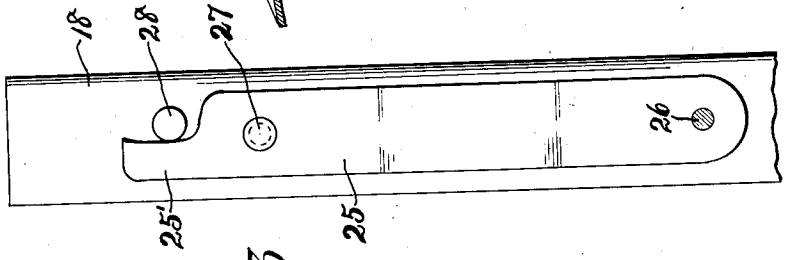


Fig. 3



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UNITED STATES PATENT OFFICE.

AARON E. ROSENTHAL AND WERNER E. CLARIN, OF CHICAGO, ILLINOIS, ASSIGNORS TO CLARIN MFG. CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

FOLDING CHAIR.

Application filed May 13, 1925. Serial No. 29,926.

Our invention pertains to a folding chair, and has for its main object to provide a light and durable chair constructed from thin, light metal or similar, suitable material, and which chair is so shaped and arranged as to provide a maximum of strength with a minimum of material. Another object is to make the supporting means of thin bars with parts thereon curved lengthwise, and preferably along their longitudinal edges, to form reinforcing means, and thus offer the greatest amount of resistance to bending and breaking. And another object is to provide a supporting link for the chair seat which is arranged to act as a stop and to limit the movement of the seat into the folded and into the unfolded position of the chair.

These and other objects are attained with our invention, one form of which is described in this specification and is illustrated in the accompanying drawings, in which:—

Fig. 1 is a perspective view of the chair unfolded or open;

Fig. 2 is a front elevational view of the chair folded or closed;

Fig. 3 is an enlarged detail view, partly in section, taken on line 3—3 of Fig. 2;

Fig. 4 is a fragmentary perspective view of the chair unfolded;

Figs. 5 and 6 are enlarged sectional views taken, respectively, on lines 5—5 and 6—6 of Fig. 4; and

Fig. 7 is an enlarged detail view, partly in section, taken on line 7—7 of Fig. 1.

In the drawing we have disclosed one form of construction embodying our invention and this form comprises two pair of supporting legs 10 and 11 which are pivotally connected together, as by the ends 12′ of the cross rod 12, the legs 10 being preferably made continuous with the upper frame part or back-rest part 13 of the chair, or the frame part and legs 10 are formed from one bar which is bent and arranged as shown in the drawings. The legs and also the frame part 13 are preferably constructed from thin metal bars which have curved portions extending lengthwise thereof, for reinforcement, and we preferably provide this reinforcement by curving both longitudinal edges of each bar, thus forming hollow or cylindrical portions extending lengthwise of each member and suitably spaced, as best shown in Fig. 6. A cross bar 14 connects legs 10 at their intermediate portions, and a cross bar 15 connects legs 11 adjacent their lower portions, to act as bracing and spacing members for the legs; while one or more bars 16 are fastened between the side arms of the frame part 13, to act as bracing members and as a backrest. The connections between these bracing members 14, 15 and 16, and the main members 10, 11 and 13, are preferably made by welding, or may be made by riveting, as indicated with the dotted circles at the respective connections. Shoes 17, preferably in the form of angle irons, are welded or riveted on the bottom of the legs, as indicated by the dotted circles 17′, and provide level and proper support on the ground.

The seat preferably comprises an outer frame or rim member 18, formed similar to the supporting members from a thin metal bar or band, which is bent or curved at its longitudinal edges, the lower edge 18′ being rounded or suitably shaped and the upper edge 18″ being flattened or otherwise shaped to form a smooth edge, as best shown in Fig. 5 of the drawings. A seat member 20 of board, fibre, metal or other suitable material is mounted in position between the curved edges of frame 18, and a tongue 21 at one end of said frame is bent over and fastened on to the other end of the frame with a screw or fastening element 22 entering into seat member 20 or the ends of the rim member may be otherwise suitably fastened.

The legs 11 have each a bar 23 fastened thereto, as by welding or riveting, and each of these bars has its upper end 23′ extending above the leg and pivoted to the forward portion of the side of the seat frame, with a rivet 24 or similar fastening element. A link 25 is pivoted to each leg 10 as with an element 26, and to the rearward part of the side of the seat frame, as with the element 27, for supporting the rear of the seat. One link, or if preferred, then each link 25, is provided with an integral finger 25′ which by the outward or unfolded movement of the seat engages the cross bar 14 and limits the outward movement of said seat, as best shown in Figs. 1 and 4, and each finger in the folded position of the seat engages the

lug 28, providing near the rear corner of the frame 18, to limit the upward movement thereof, as best shown in Figs. 2 and 3. A short reinforcing plate 29 is preferably also fastened on each leg 10 to form a better pivotal connection with end 12′ of cross rod 12.

The front of the seat is slightly elevated above the rear, and the various parts of the chair are so arranged and connected that the seat is closable by a rearward and upward pressure on its front, and that by merely dropping or pushing the chair forward, the resulting contact of the front edge of the seat with the floor causes the seat to fold rearward and upward into the frame, thus automatically closing and folding the chair flat on the floor. This feature makes this chair of particular value where it becomes necessary to permit rapid exit of large groups of people from crowded buildings, as in case of fire or panic.

It is apparent from the above disclosure that we have provided a light and at the same time durable chair which is readily foldable into a convenient form to carry about and also to stack away in a minimum of space, as all elements of the chair are folded within the confines of the frame part 13 and the connected legs 10, and furthermore that the metal on the legs and frame part, and also on the seat frame is so formed and distributed by means of the curved edges, as to provide a maximum of strength for the amount of material used, and also that the links 25 with their fingers 25′ are arranged to be effective as supporting elements and also as stop elements to limit the upward as well as downward positions of the seat.

What we claim and desire to secure by Letters Patents is:

1. A folding chair having supporting legs and an upper frame portion thereon, said chair having a pair of similarly formed legs pivoted to the first mentioned legs, a seat pivoted to one pair of legs, stopping means on said seat, a link pivoted on said seat and one of the legs, and means extending from said link for engaging the stopping means on said seat to limit the movement of said chair.

2. A folding chair having two pairs of legs pivoted together, a seat pivoted to one pair of legs, a stopping lug extending laterally from said seat, a link pivoted on said seat and one leg of the other pair of legs, and a finger extending from one end of said link for engaging the stopping lug on said seat to limit the folding movement of said chair.

3. A folding chair having one pair of legs formed integral with its upper frame portion, a pair of legs pivoted to the first pair of legs, a seat pivoted to one pair of said legs, links pivotally connected to the other pair of legs and to said seat, a cross bar connecting each pair of legs, a lug on said seat, and means on one of said links to engage said lug or one of said crossbars to limit either the folding or the unfolding movement of said seat and chair.

In testimony whereof we have signed our names to this specification.

AARON E. ROSENTHAL.
WERNER E. CLARIN.