March 10, 1953 A. J. BELLIN 2,630,858

CHAIR CONSTRUCTION

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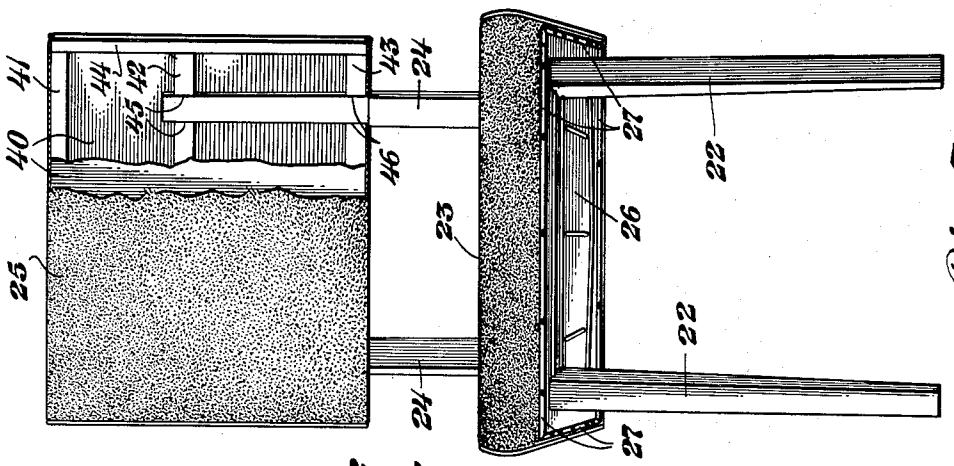


Fig. 3.

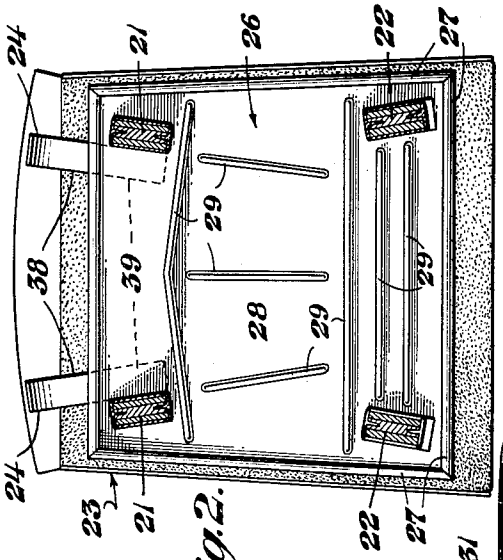


Fig. 2.

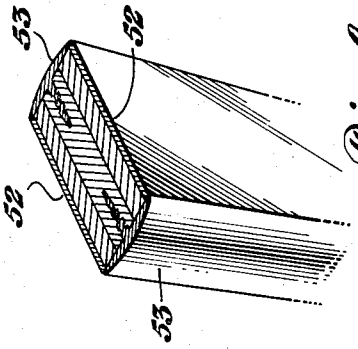


Fig. 4.

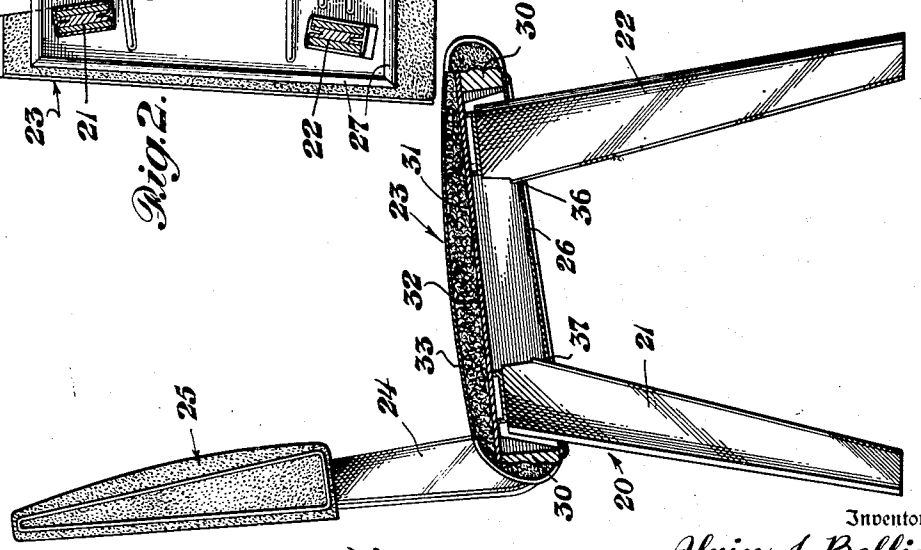


Fig. 1.

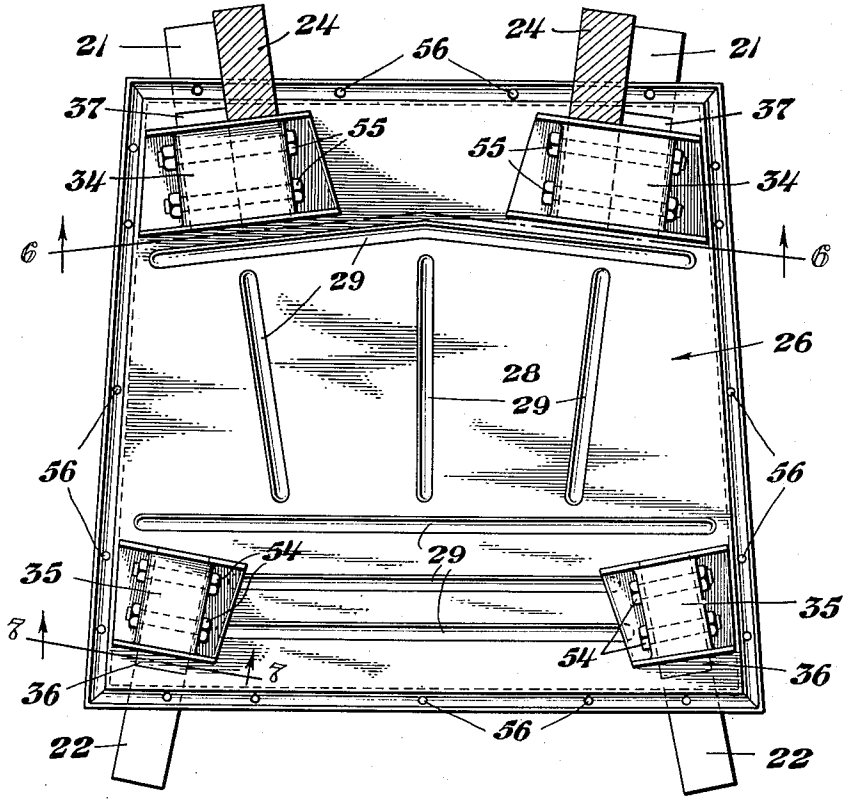
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Fig. 5.



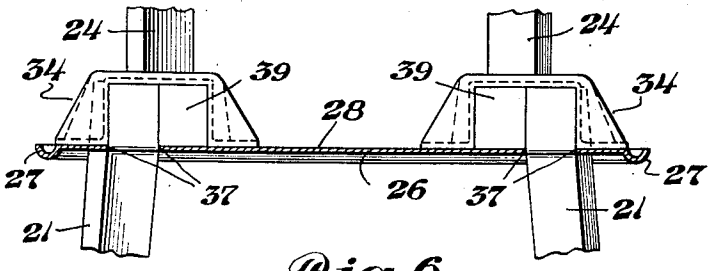


Fig. 6.

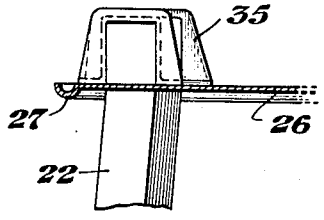


Fig. 7.

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CHAIR CONSTRUCTION

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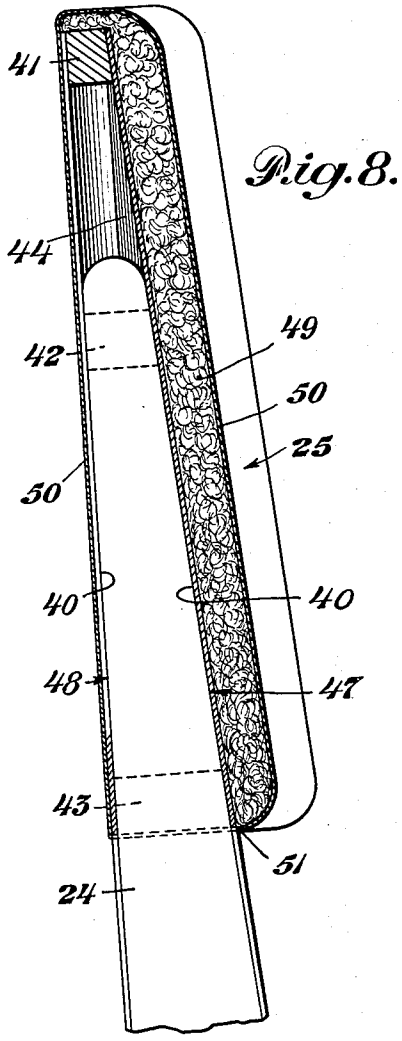
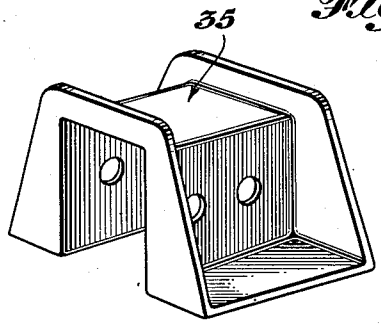


Fig. 8.

Fig. 11.



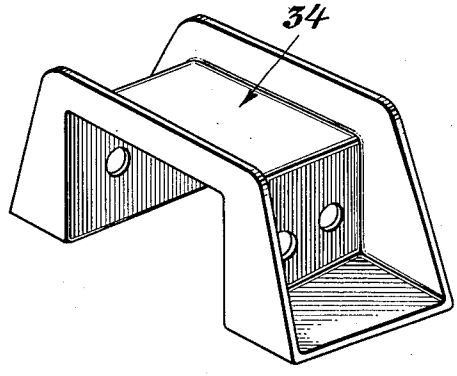


Fig. 10.

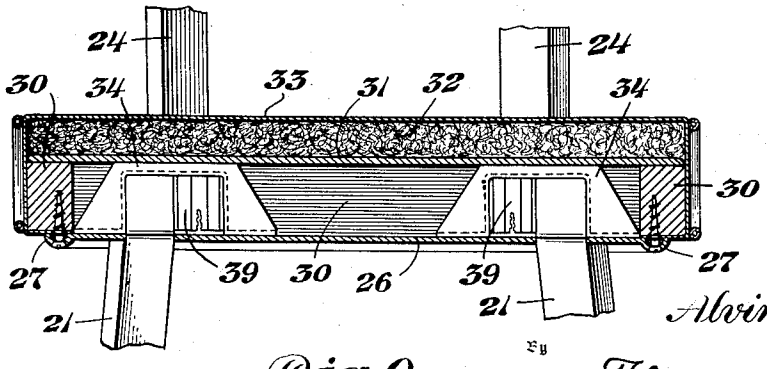


Fig. 9.

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CHAIR CONSTRUCTION

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Application July 16, 1947, Serial No. 761,280

5 Claims. (Cl. 155—196)

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This invention relates to seating and more particularly chair construction.

Prior to the instant invention attempts have been made to utilize brackets and sockets for the association of chair elements in chair construction and such prior constructions have not been entirely satisfactory from points of view of cost, appearance and strength.

It is an object of the instant invention to provide a novel chair construction involving a combination of elements which may be readily fabricated, readily associated with each other to form a chair of pleasing appearance, of strong and sound construction with accompanying savings in construction cost.

It is a further object of the instant invention to teach the construction of a novel upholstered chair.

It is still another object of the instant invention to teach the construction of a novel chair wherein the vertical back members and the legs are secured to the seat in a novel manner.

Other objects and the nature and advantages of the instant invention will be apparent from the following description taken in conjunction with the accompanying drawings, wherein:

Figure 1 is a side elevation of the chair with parts of the seat shown in vertical section.

Fig. 2 is a bottom view of the chair with the legs cut off below the seat.

Fig. 3 is a front elevation of the chair with parts broken away to show the back construction.

Fig. 4 is a fragmentary view in perspective of a vertical member of the chair illustrating a horizontal section through the said member.

Fig. 5 is a top plan view of the seat pan with the seat removed.

Fig. 6 is a vertical section taken along line 6—6 of Fig. 5.

Fig. 7 is a vertical section taken along line 7—7 of Fig. 5.

Fig. 8 is a vertical section taken through the back of the chair.

Fig. 9 is an enlarged vertical section taken through the seat of the chair.

Fig. 10 is a view in perspective of the rear socket of the chair with which is adapted to be associated one of the back legs and one of the back vertical seat posts.

Fig. 11 is a view in perspective of one front socket with which is adapted to be associated one front leg.

Referring to Figs. 1 and 3, the chair 20 comprises two rear legs 21, two front legs 22, an upholstered seat 23, two vertical back posts 24 which are generally of L-shape, and an upholstered back member 25.

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Referring to Figs. 1, 2, 3, 5, 6, 7, 9, 10 and 11, the seat 23 comprises a pan 26 having a beaded margin 27 and a planular body 28 which is formed with reinforcing deformations 29; a rectangular wooden frame 30 covered by a planular membrane such as the sheet of Masonite 31; upholstery stuffing 32; and upholstery fabric covering 33. The upholstery fabric 33 is in the shape of an envelope open at its bottom which is pulled tightly over the stuffing 32 and around the frame 30 to the bottom of which it may be tacked. In a manner to cover the bottom opening of the upholstery fabric, the pan 26 is secured at its margins to the bottom of the frame 30. To the top side of the pan 26 is secured, as by spot welding, the two rear sockets 34 and the two front leg sockets 35. The pan 26 is provided with one opening 36 for each of the front legs, the tops of which are adapted to cooperate with the front leg sockets 35. The pan 26 is also provided with one opening 37 for each of the rear legs, the tops of which are adapted to cooperate with the sockets 34. Each of the vertical back posts 24 also cooperate with the sockets 34 but no opening in the pan 26 is provided for the association of the posts 24 with the sockets 34. The pan 26 is a sheet metal stamping and each of the sockets 34 and 35 are sheet metal stampings comprising an inverted U-shaped body having horizontal projections on the ends of the legs of the U and a pair of flanges extending from and entirely about the margins of the U-shaped body and projections, said flanges each being planular and generally trapezoidal in shape, each of the pair of flanges being located on opposite sides of the U-shaped body of the socket and no part of the flanges interfering with free access to the U-shaped body of the sockets. The construction of the sockets is such as to provide for contact with the pan so that the two may be secured together as by spot welding and the resulting combination has inherently great strength. The rear part of the wooden frame 30 is provided with two slots 38 to accommodate the horizontal leg 39 of the L-shaped vertical back posts 24.

Referring to Figs. 1, 3 and 8, the upholstered back member 25 comprises a frame made of two concave sheets of plywood 40 spaced by three horizontal frame rails 41, 42 and 43 and two vertical side frame members 44. The two sheets of plywood 40 are closer together at the top than at the bottom to provide a tapered construction.

The horizontal rails 42 are provided with two openings 45, through which the tops of the vertical members 24 pass. The horizontal rails 43 are provided with two openings 46 through which intermediate portions of the vertical members 24 pass. As the vertical legs of the L-shaped member 24 are tapered and taper inwardly from bottom to top, the edges 47 and 48 of the vertical leg of the vertical members 24 cooperate with the interior faces of the two sheets of plywood 40 to provide a friction fit. The openings 46 are larger than the openings 45 so that the tops of the members 24 pass freely through the openings 46, but in a tight manner through the openings 45 whereby the upper portions of the vertical members 24 cooperate with the friction fit of the interior faces of the two sheets of plywood 40 and with the sides of the openings through the horizontal rails 42 and 43. The front of the front piece of plywood 40 is covered with stuffing 49 and the entire back member 25 is covered with an upholstery fabric envelope 50 though holes 51 are provided in the envelope at the bottom of the back member 25 to provide for the insertion of the vertical members 24.

Referring to Figs. 1, 2, 4, 5, 6 and 9, the vertical back members 24, the rear legs 21 and the front legs 22 are made in the following manner. Large sheets of veneer are laid up with a suitable bonding medium between the inner faces of each veneer in the manner of making a large sheet of plywood. On the outer face of those veneers which are on the bottom and top of the large sheet, a suitable decorative thermosetting laminate 52 is bonded. The large sheet of decorated plywood is then cut to the shapes of the rear legs 21, the shapes of the front legs 22 and the L-shaped vertical back members 24 in an economical manner in order to eliminate waste of lumber and waste of decorative thermosetting laminate. Where the large sheet has been cut, an edge of the plywood is exposed. This exposed surface on the long sides is covered with a T-section extruded edging 53 as best shown in Fig. 4. Thus, it will be understood that the sides of the front legs 22, the sides of the rear legs 21 and the sides of the L-shaped vertical back members 24 are covered with a decorative thermosetting laminate and the front and rear portions of the front legs, the front and rear portions of the rear legs, and the exposed front and rear portions of the vertical members 24 are covered with an extruded thermoplastic edging of T-section with the vertical leg of the T extending into the wooden core of the elements so covered. The thermosetting laminate may be of the phenol formaldehyde type or of the melamine type or combinations of both types. The extruded thermoplastic edging may be of ethylcellulose or cellulose acetate butyrate. All the exposed surfaces, exclusive of the upholstered seat 23 and the upholstered back member 25, are covered with either thermosetting laminate or thermoplastic edging all of which are decorative and require no further finishing or painting, as these plastic elements may be of such decorator's color scheme as to be attractive. All the exposed wooden members so covered are fully protected against the elements, hard knocks and ordinary usage to which furniture is put so that they never need to be redecorated or refinished and their decorative color scheme is permanent.

While the upholstered seat 23 and the upholstered back member 25 are adapted to be recovered, upholstery materials may be selected

which are long lasting and highly decorative and synthetic upholstery fabrics are available for this purpose such as, for example, fabrics woven of filaments of copolymers of vinylidene chloride and vinyl chloride.

In the manufacture of the chair in accordance with the invention, the framed, stuffed and upholstered back member 25, and the framed, stuffed and upholstered seat 23 are manufactured separately as complete individual elements. The vertical L-shaped members 24, the rear legs 21, and the front legs 22 are manufactured as has already been described. The pan 26 and the sockets 34 and 35 are manufactured and assembled as a unit. The vertical members 24, the rear legs 21 and the front legs 22 are assembled with the pan in the manner described, and the tops of the front legs 22 are bolted to the sockets 35 by bolts 54, as shown in Fig. 5. The tops of the rear legs 21 and the horizontal legs 39 of the vertical members 24 are bolted to the sockets 34 by the bolts 55 as shown in Fig. 5. The upholstered seat 23 is then associated with the pan 26 in the manner already described and the back member 25 is jammed on to the tops of the vertical members 24 in a manner to provide a friction fit assembly.

In the assembly of the pan 26 with the upholstered seat 23, the margins 27 of the pan 26 are associated with the bottom of the wooden frame 30 with screws or nails which are adapted to be passed through the openings 56, see Fig. 5.

It will be obvious to those skilled in the art that various changes may be made without departing from the spirit of the invention and therefore the invention is not limited to what is shown in the drawings and described in the specification but only as indicated in the appended claims.

What is claimed is:

1. In a chair, a seat comprising a generally rectangular frame, a pan secured to said frame, four sockets secured to said pan, two of said sockets being located at the front of said seat and two at the rear, four legs secured to said four sockets, two back posts of generally L-shaped configuration each of which has a substantially vertical leg and a substantially horizontal leg, each of said rear sockets receiving both a rear leg and the horizontal leg of one of said back posts.

2. In a chair seat, a generally rectangular frame, a pan secured to the bottom of said frame, said pan having deformations formed therein to impart great strength thereto, four sockets secured to the top of said pan, two of said sockets being located at the front of said seat and two at the rear four openings in the bottom of said pan, two openings at the rear of said frame, the four openings in the bottom of said pan receiving the four legs of said chair, the two openings in the back of said frame accommodating the horizontal legs of generally L-shaped back posts, each of said rear sockets accommodating both a rear leg and the horizontal leg of one of said back posts.

3. In a chair seat, a generally rectangular wooden frame, a metallic pan secured to the bottom thereof, a plurality of sockets secured to the top of said pan, each of said sockets having an inverted U-shaped pocket with flanges extending from the front and back of said U-shaped pocket to impart strength to said sockets.

4. The structure recited in claim 3, wherein two of said sockets are located at the front of the

seat and two at the rear, a chair leg extending from each of said sockets, each of said rear sockets accommodating both a rear back post and a rear leg, the rear socket being wide enough to correspond to the width of a chair leg and a back post.

5. In a chair having a back supported on a pair of back posts, a rectangular frame, a horizontal cross rail, a front and back planular member covering said frame and said harizontal cross rail, a pair of openings in the lower member of said frame, a pair of openings in said horizontal cross rail, said front and back planular members converging from the bottom to the top, said two back posts extending upwardly through the bottom member of said back frame and through said horizontal cross rail, said back posts frictionally engaging the front and back planular members.

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