CHAIR HAVING A BACK REST IN THE FORM OF A SHELL-LIKE BODY

FIG. 9.

FIG. 10.

FIG. 11.
The present invention relates to articles of furniture, and more particularly to chairs or the like.

Another object of the present invention is to provide a chair or the like wherein a shell-like body forming the back-rest of the chair is free from compound curves.

A further object of the invention is to provide a chair or the like which may be readily upholstered without the use of gussets.

A further object of the present invention is to improve on the construction of chairs or the like as now ordinarily made.

With the above and other objects of the invention in view, the invention consists in the novel construction, arrangement and combination of various elements and parts as described hereinafter and set forth in the claims hereof, and certain embodiments of the same being described in the specification and being illustrated in the accompanying drawings forming part of this specification, wherein:

Fig. 1 is a perspective view of a chair according to the invention.

Fig. 2 is a perspective view of the support carrying the seat- and back-rest structure of the chair shown in Fig. 1.

Fig. 3 is a top plan view of a blank of sheet material which may be used for the manufacture of the part of the chair including the back-rest.

Fig. 4 is a front elevational view of the chair shown in Fig. 1.

Fig. 5 is a front perspective view of another embodiment of a chair according to the invention.

Fig. 6 is a rear perspective view of the chair shown in Fig. 5.

Fig. 7 is a perspective view of a shell-like body forming a part of the chair shown in Fig. 5.

Fig. 8 is a top plan view of a blank of sheet material which may be used for the manufacture of the shell-like body shown in Fig. 7.

Fig. 9 is a rear perspective view of a shell-like body similar to that shown in Fig. 7, which, however, is provided with upholstery.

Fig. 10 is a rear perspective view similar to that shown in Fig. 6 wherein, however, the chair is upholstered, and

Fig. 11 is a sectional view taken on line 11—11 of Fig. 10.

Referring now to Figs. 1, 2, and 4, 28 generally indicates a seat carried by a support generally indicated by 22. The support 22 comprises two side frames 24, 25 of tubular material or the like connected with each other by cross-bars 28. The seat 20 is attached to said support 22 by means of screws or the like passing through bores 30 of the side frames 24 and 25.

Furthermore, a shell-like body generally indicated by 32 is connected to the seat by said screws passing through said bores 30 of the support 22. Said shell-like body 32 comprises a back-rest 34, two arm rests 35 and 38 and the embracing portions 40, 42 embracing the seat 20 and extending underneath thereof. The shell-like body 32 is provided with an aperture 44 in its center portion. The rear portion of the seat 20 passes through and projects from said center aperture 44 of the shell-like body 32. The shell-like body 32 is of substantially uniform thickness throughout.

Furthermore, according to the embodiment shown in the drawings, the shell-like body 32 is free from compoundly curved surfaces. Insofar as said shell-like body includes curved surfaces, they present unidimensional curves. In other words, all areas of the shell-like body, whether they are curved or straight, are traced by straight line generations G being at a right angle to the edge of the aperture 44.

The shell-like body 32 of the chair shown in Figs. 1 and 4 may be made from band-like blanks 32a and 32b of sheet material as illustrated by Fig. 3. The sheet material may consist of a plastic or plywood or metal or any other bendable material. The blanks 32a and 32b are bent in a suitable form into the desired shape of the shell-like body 32. Upon suitable shaping of the blanks 32a and 32b the edges 46a and 46b as well as the edges 48a and 48b contact each other, the areas 34a and 34b form the back-rest, the areas 36a and 36b form the arm rests and the areas 42a and 42b form the embracing portions of the shell-like body 32. In the finished product, the contacting edges 46a and 46b as well as 48a and 48b of the blanks 32a and 32b are connected with each other at the seams 46 and 48 respectively. Said connections may be obtained by mechanical means, such as screws, or by the use of an adhesive, such as glue, or by a fusing process in case a thermoplastic material is used, or by any other suitable means.

Instead of bending the blanks 32a and 32b by means of a form into the desired shape, the various areas of said blanks could also be bent into the desired shape, one after the other, by suit-
able means, for example by bending same over a mandrel.

Furthermore, the shell-like body 32 of a chair according to the invention could also be made by placing plastic material into a form or mold of suitable shape and shaping said plastic material therein. In such a case, an integral shell-like body 32 could be obtained.

Moreover, if the shell-like body 32 is made by the use of band-like blanks, the blanks may be made of such a shape that in the finished product the blanks are connected with each other only at the front and that there is a space between the edges 48a and 48b of the embracing portions 42 and 40 of the finished shell-like body 32 extending underneath the seat to a certain extent.

As mentioned above, the shell-like body 32 may be attached to the seat by screws attaching also the support 20 to the seat. If desired, however, the shell-like body 32 and the seat 20 may be connected with each other in any other suitable way, for example by the use of separate screws or by the use of an adhesive.

Moreover, the seat 20 could be carried by four separate legs of any suitable shape and design instead of by a support 22 as shown in Figs. 1, 2 and 4.

According to the embodiment of a chair shown in Figs. 5–7, the chair comprises again a seat 120 carried by a support 122. A shell-like body 132 is connected to the seat 120 in any suitable manner, for example by an adhesive or by screws (not shown).

The shell-like body 132 comprises a back-rest 134 and embracing portions 140, 142 which may be connected with each other at the seat 148. Said embracing portions 140, 142 of the shell-like body 132 embrace the seat 120 and extend underneath thereof. The shell-like body 132 may be connected to the seat 120 in any suitable manner, for example by screws (not shown) passing through bores (not shown) arranged in the embracing portions 140, 142. In the embodiment shown in Figs. 5 and 6, the rear portion of the seat 120 passes through and projects from the center aperture 144 of the shell-like body 132.

The shell-like body 132 having substantially uniform thickness throughout is free from compoundly curved surfaces, its curved surfaces presenting unidimensional curves. Said body has no arm-rests.

As shown in Figs. 5–7, the shell-like body 132 is provided with dents 150 bulging outwardly. This provides more room for the occupant of the chair between the portions 152 and 154 of the shell-like body 132 and reinforces the latter.

The shell-like body 132 may be made from a blank 132a of bendable sheet material. Upon bending of said blank 132a in a form, the edges 148a and 148b thereof will contact each other, the area 134a will form the back-rest 134 and the area 140a and 142a will form the embracing portions 140, 142 of the shell-like body 132.

Of course, the shell-like body 132 may also be shaped in such a way that there remains a space between the embracing portions 140 and 142, so that the latter do not cover the entire width of the latter surface of the seat 120.

The shell-like body 132 may also be made according to any other suitable method, for example according to methods described above in connection with the shell-like body 32 of the chair shown in Figs. 1 and 4.

According to the embodiment shown in Figs. 5–7 the surface of the various areas of the shell-like body 132 are traced by straight-line generatrices and, consequently, the shell-like body 132 is free from compoundly curved surfaces. This feature facilitates to a great extent the upholstering of a chair according to the invention, which can be done without the use of gussets.

According to the embodiments shown in Figs. 9–11 the covering material of the upholstery, for example a fabric 156 is applied to the shell-like body 132 in the shape of a slip-cover. Said slip cover envelopes the shell-like body 132 and a layer of foam rubber 158 or other suitable elastic material cemented to the inner surface of the body 132. The slip cover may be closed by slide fasteners 160, 162 and 164. Of course, the slide fasteners may be arranged in a different manner or a different type of closing means may be used for holding the slip-cover 158 in place.

As best shown in Fig. 11, the seat 120 is, likewise, upholstered. The shell-like body 132 is connected to the seat by screws 166 passing through bores of the support 122, thus connecting also said support to the seat.

Of course, the chair shown in Figs. 5–7 and 10 may also be provided with separate legs instead of a support carrying the seat-back-rest assembly.

Moreover, the dents 150 shown in Figs. 5–7 may be omitted, if desired.

Furthermore, if desired, the chair shown in Figs. 1 and 4 may also be provided with upholstery and, as the shell-like body 32 of said chair is free from compound curves, the covering material of such upholstery may also be applied to said chair in the form of a slip-cover.

I have described preferred embodiments of my invention, but it is understood that this disclosure is for the purpose of illustration and that various omissions or changes in shape, proportion and arrangement of parts as well as the substitution of equivalent elements for those herein shown and described may be made without departing from the spirit and scope of the invention as set forth in the appended claims.

What I claim is:

1. An article of furniture comprising: a seat, a shell-like body including a back-rest and embracing means, said shell-like body having an aperture in its center portion, said embracing means of the shell-like body embracing said seat and extending underneath thereof, said shell-like body being connected to said seat, and supporting means carrying said seat.

2. An article of furniture comprising: a seat, a shell-like body including a back-rest and embracing means, said shell-like body forming an aperture in its center portion and being composed of a plurality of surfaces adjacent to said aperture, at least a portion of said surfaces being curved, said curved surfaces presenting unidimensional curves in the direction of their curvature and being traced by a straight line generated perpendicular to the edge of the aperture at the point of intersection, said embracing means of the shell-like body embracing said seat and extending underneath thereof, said shell-like body being connected to said seat, and supporting means carrying said seat.

3. An article of furniture comprising: a seat, a shell-like body including a back-rest and embracing means, said shell-like body having an aperture in its center portion and being composed of a plurality of surfaces adjacent to said aperture, a predetermined number of said surfaces being curved, the remainder of said surfaces being straight, said curved surfaces presenting unidi-
5. In an article of furniture as claimed in claim 1, said shell-like body being made from at least one piece of sheet material bent into shape.

6. In an article of furniture as claimed in claim 1, said shell-like body consisting of an integral piece of material.

7. An article of furniture comprising: a seat, a shell-like body constituting a back-rest, armrests and embracing means, said shell-like body having an aperture in its center portion, said embracing means of the shell-like body embracing said seat and extending underneath thereof, said shell-like body being connected to said seat, and supporting means carrying said seat.

8. An article of furniture comprising: a seat, a shell-like body constituting a back-rest, armrests and embracing means, said shell-like body having an aperture in its center portion and being composed of a plurality of surfaces adjacent to said aperture, at least a portion of said surfaces being curved, said curved surfaces presenting unidimensional curves in the direction of their curvature and being traced by a straight line generatrix perpendicular to the edge of the aperture at the point of intersection, said embracing means of the shell-like body embracing said seat and extending underneath thereof, said shell-like body being connected to said seat, and supporting means carrying said seat.

9. An article of furniture comprising: a seat, a shell-like body constituting a back-rest, armrests and embracing means, said shell-like body having an aperture in its center portion and being composed of a plurality of surfaces adjacent to said aperture, a predetermined number of said surfaces being curved, the remainder of said surfaces being straight, said curved surfaces presenting unidimensional curves.

10. In an article of furniture: a seat, a shell-like body including a back-rest and embracing means, said shell-like body being made from a blank of bendable sheet material bent into shape, said blank having a cut-out converging from its exterior towards its center and merging into a single aperture having side edges at first diverging away from and then converging towards the center of the blank and having an inner edge connecting said side edges, the edges of said converging cut-out facing each other when the blank is bent into shape forming said shell-like body, said embracing means of the shell-like body embracing said seat and extending underneath thereof, said shell-like body being connected to said seat, and supporting means carrying said seat.

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