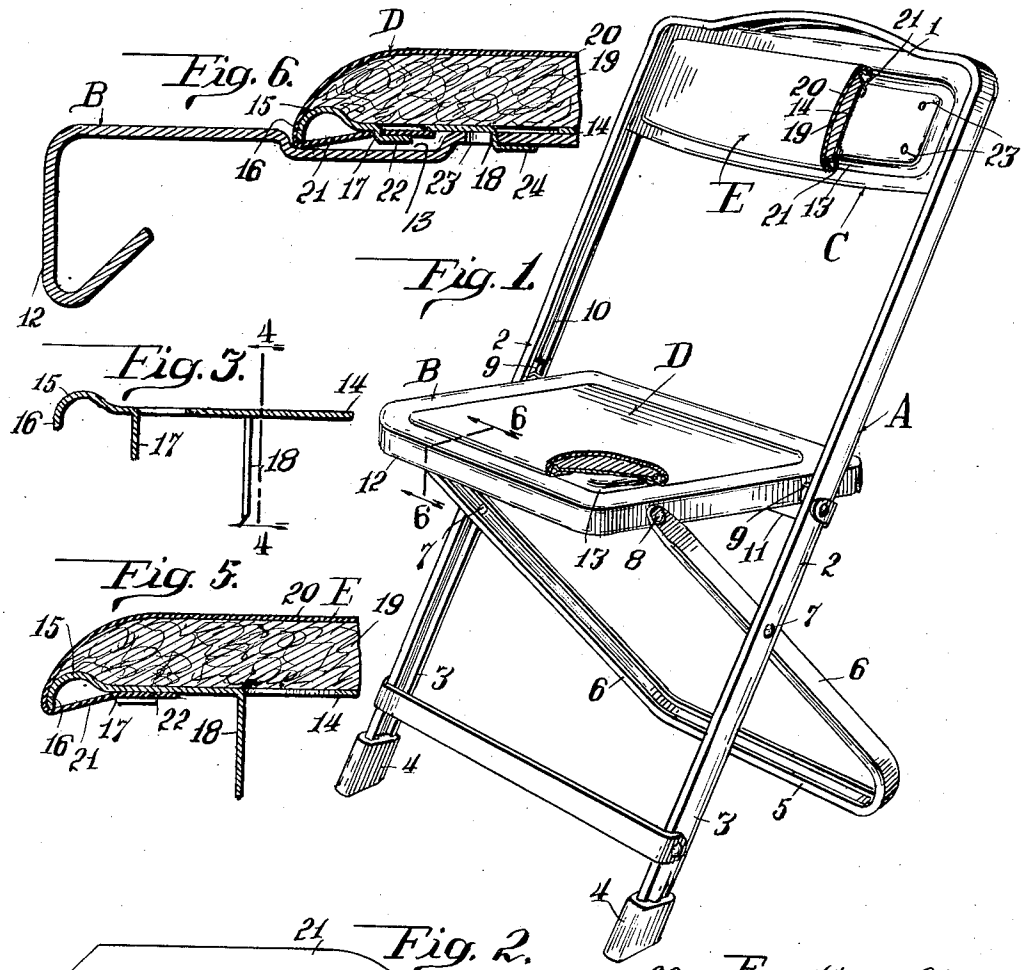
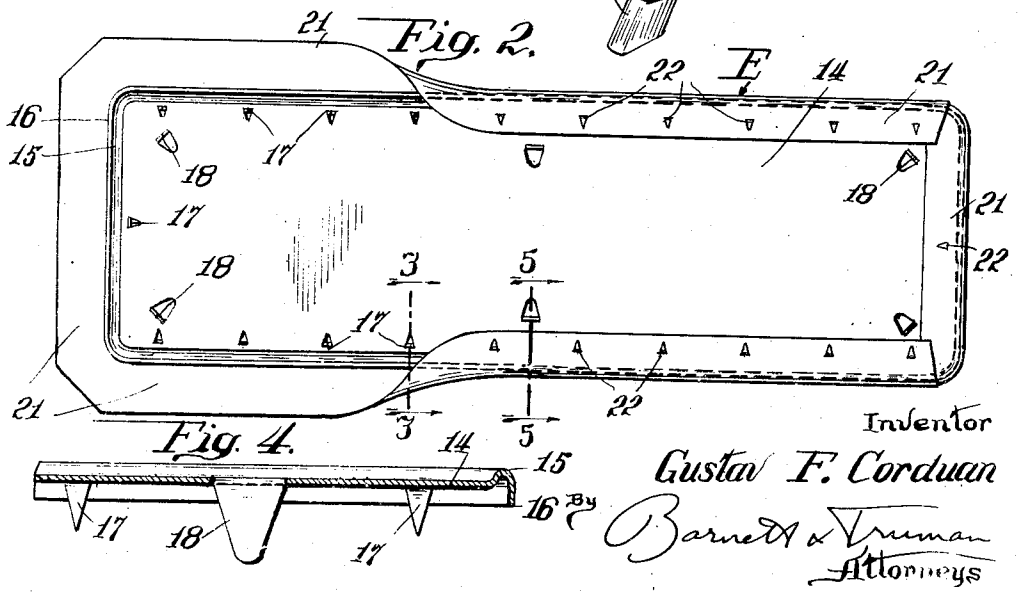
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CHAIR CUSHION

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CHAIR CUSHION

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3 Claims. (Cl. 155—184)

This invention relates to a certain new and improved cushion for chairs, and more particularly to an improved means and method for assembling the parts of the cushion and holding the parts together, and for securing the cushion to the chair frame.

The invention is adapted more particularly for use with folding metal chairs such as are used for example with card tables, for camping purposes, or in assembly halls. It is desirable to use pads or cushions on the seats or backs, or both, of such chairs, and the present invention relates to an improved form of cushion or pad especially adapted for this purpose that may be permanently but removably secured in place on the chair frame.

Briefly described, the improved cushion comprises a stamped or pressed metallic back plate formed from thin sheet metal and provided with integral prongs some of which are passed through the covering material of the cushion and bent over to hold this material in place, other of the prongs being used to secure the cushion in place on the chair frame.

The principal object of this invention is to provide certain improvements in cushions for folding chairs, as briefly described hereinabove and disclosed more in detail in the specifications which follow.

Another object is to provide an improved form of detachable cushion for chairs.

Another object is to provide an improved method and means for securing together the component parts of a chair cushion.

Another object is to provide an improved method and means for securing the cushion to the chair frame.

Other objects and advantages of this invention will be more apparent from the following detailed description of one approved form of device constructed and operating according to the principles of this invention.

In the accompanying drawing:

Fig. 1 is a perspective view of a complete chair with the cushions applied, portions of the cushion being broken away to illustrate the underlying supporting plates of the chair frame.

Fig. 2 is a rear or bottom plan view of one of the cushions, showing the covering sheet partially applied to the back-plate.

Fig. 3 is a section on a larger scale through one edge portion of the back-plate, the view being taken substantially on the line 3—3 of Fig. 2.

Fig. 4 is a section taken substantially on the line 4—4 of Fig. 3.

Fig. 5 is a section similar to Fig. 3 but showing the completed cushion, the view being taken substantially on the line 5—5 of Fig. 2; and

Fig. 6 is a similar section showing the cushion applied to the chair frame, this view being taken substantially on the line 6—6 of Fig. 1.

The chair comprises the folding frame indicated generally at A, the seat B, the back-rest C, the seat-cushion D, and the back-cushion or pad E.

The frame A comprises a main yoke-shaped member bent from a continuous strip of metal of channel-shaped cross-section, this member comprising an upper cross bar 1 from which extend parallel back-supporting side members 2, the members 2 extending downwardly to form the front legs 3. Rubber caps or feet 4 may be positioned on the lower ends of the legs 3. A second yoke member which may also be formed of a continuous strip of metallic channel is inverted so that the cross member 5 forms a foot or support at the lower ends of the legs 6 which are intermediately pivoted at 7 to the first mentioned legs 3. The upper front ends of the legs 6 are pivotally connected at 8 with the sides of the seat B. Projections 9 extending from the rear side portions of seat B are adapted to slide in the channels 10 in frame bars 2 when the chair is folded, and when the chair is extended in the normal position shown in Fig. 1, the rear portion of seat B will rest on a cross bar 11 secured between the two side bars 2. The back plate C is secured in any suitable manner, for example by spot welding, within the channels between the upper portions of the side bars 2 and cross bar 1.

This back plate C, and the seat B are formed from fairly heavy sheet metal which may be folded at the edge portions, for example as shown at 12 in Fig. 6, so as to provide the necessary strength and at the same time give a more pleasing appearance. Preferably an endless channel or corrugation 13 is pressed into both the back member C and seat B, the outer edges of each of these channels enclosing an area slightly greater than the areas of the respective cushions E and D for reasons that will be hereinafter apparent. These channels 13 serve not only to receive the edge portions of the cushion, but also strengthen the supporting plates B and C and serve to ornament the plate in case the cushions are not applied. It will be understood that either or both of the cushions D and E may be used. These cushions D and E are identical in construction except for the difference in size and shape. For convenience of illustration we have

shown the smaller pad or cushion E in Fig. 2, but it will be understood that all of the description of these cushions which follow applies equally well to either one of the cushions D or E.

As is usual in this type of cushion, the padding and covering material are mounted on a back-plate or supporting plate, which in turn is secured to the chair frame. This back-plate is usually made of wood or fibre board although metal has been used. In any case, the covering material has usually been secured to the back-plate by staples or similar fasteners or by gluing, or both.

The improved cushion herein disclosed comprises a back-plate 14 which is cut, pressed or stamped from rather thin sheet metal, and all of the fastening means used to assemble the cushion and hold the cushion in place on the chair are integral with and form a permanent part of this back-plate. The edge portions of this plate are preferably ribbed or beaded as indicated in Figs. 3 and 4, the metal being first rounded upwardly and outwardly as indicated at 15 so as to extend above the plane of the top of plate 14 and then rounded downwardly as indicated at 16 so as to extend below the plane of the plate. Inwardly of this beaded edge, but adjacent the edge portions of the plate, a series of spaced apart small and rather sharp-pointed prongs 17 are punched from the plate so as to project rearwardly therefrom. At locations somewhat further inwardly from the edges of the plate, a plurality of somewhat larger prongs 18 are punched out so as to also extend rearwardly from the plate. It will be understood that the entire back-plate, with the beaded edge 16 and the prongs 17 and 18 can be formed in a single stamping operation.

In the process of assembling the cushion, a layer of cotton or other suitable padding material 19 is positioned over the front face of the back plate 14, and over this padding is placed the sheet 20 of suitable covering material such as fabric, leather, or imitation leather. This assembly is then inverted so that the rear face of plate 14 will be uppermost, and these assembled parts are temporarily clamped securely in position by any suitable means. The cover sheet 20 is of such a size that the edge portions 21 thereof will project somewhat beyond the edge portions of the back-plate as indicated at the left of Fig. 2. These edge portions 21 are then stretched tightly and folded around the beaded edges of the plate 14 and pressed down over the prongs 17 so that these prongs will be forced through the cover sheet, and the prongs 17 are then bent down parallel with the rear face of the back plate as indicated at 22 in Figs. 2, 5 and 6 so as to securely clamp the assembly together. The operator will usually wear a suitable thimble or thimbles and the metal is sufficiently thin and the prongs 17 sufficiently flexible so that these prongs may be easily bent down by the operator as the edge portions 21 of the cover sheet are stretched into position. In this manner the cushion is very quickly and economically assembled.

The rounded or beaded edge on the back-plate 14 permits the covering sheet 20 to be drawn tightly into position over the padding 19 without cutting the covering sheet, and also minimizes the wear at this edge, particularly since the edge of the cushion is housed within the channel 13 of the supporting plate.

Holes or openings 23 are formed in the supporting plates B and C of the chair frame, and when the cushion D or E as the case may be is applied to the supporting frame the prongs 18 will project through these openings 23 and the cushion is secured in place by bending over the prongs 18 against the rear of the supporting plate, as indicated at 24 in Fig. 6. At this time it will be noted that the edge portions of the cushion are received within the outer portion of channel 13, this channel also providing clearance for the folded edge portion 21 of the covering material and the folded prongs 22 so that the main central portion of the back-plate can rest smoothly on the central portion of the supporting plate in the area surrounded by the channel. The beaded edge portion of the cushion extends into the channel so as to provide a neat fit around the edge portions of the cushion.

It will be noted that all of the fastening means used are integral portions of the back-plate and no separate staples or other securing means are required. No glue is used and thus the danger of smearing or soiling the covering material during the process of assembling is largely eliminated.

While the cushions are normally left permanently in position on the chair, a cushion can be removed from the chair frame by simply straightening back the several prongs 18.

A cushion can be recovered by simply bending out the several fastening prongs 17 and then removing the covering material. A new cover can then the substituted and the prongs bent down again to secure this new cover in place.

I claim:

1. In combination with a chair frame comprising a metallic supporting plate having an inner flat portion formed with a plurality of spaced apart openings and surrounded by a depressed portion, a chair cushion comprising a sheet metal back plate having a first series of rearwardly projecting prongs punched therefrom adjacent the edge portions of the back plate, a central flat portion adapted to engage the flat portion of the supporting plate, and a second series of rearwardly projecting prongs punched from the flat central portion of the back plate, padding material positioned on the front face of the plate, a sheet of covering material stretched over the padding and around the edges of the back plate, the first series of prongs being passed through the edge portions of the sheet and bent toward the back plate to hold the sheet in position, and the second series of prongs being passed through the openings in the supporting plate to secure the cushion to the chair with the flat central portion of the back-plate in engagement with the inner flat portion of the supporting plate, and the bent portions of the outer series of prongs overlying the depressed portion of the supporting plate.

2. In combination with a chair frame comprising a metallic supporting plate formed with an endless depressed channel, there being a plurality of spaced apart openings formed in the supporting plate, a chair cushion comprising a sheet metal back plate formed with beaded edges and having a plurality of rearwardly projecting prongs punched therefrom, padding material positioned on the front face of the plate, a sheet of covering material stretched over the padding and around the beaded edges of the back plate, and means formed integrally with the plate for securing the edge portions of the sheet against the rear face of the back plate, the beaded edge portions of the back plate being received in the channel of

the supporting plate and the prongs being passed through the openings in the supporting plate and bent over to secure the cushion to the chair.

3. In combination with a chair frame comprising a metallic supporting plate formed with an endless depressed channel, there being a plurality of spaced apart openings formed in the supporting plate within the space enclosed by the depressed channel, a chair cushion comprising a sheet metal back plate formed with beaded edges and having a first series of rearwardly projecting prongs punched therefrom adjacent these edges, and also a second inner series of rearwardly projecting prongs punched from the back plate, padding material positioned on the front face of the back plate, a sheet of covering material stretched over the padding and around the beaded edges of the back plate, the first series of prongs being passed through the edge portions of the sheet and bent toward the back plate to hold the sheet in position, the beaded edges being received in the channel of the supporting plate and the second series of prongs passed through the openings in the supporting plate to secure the cushion to the chair.

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