July 2, 1929. J. L. CABLE 1,719,532

CHAIR

Filed July 16, 1927

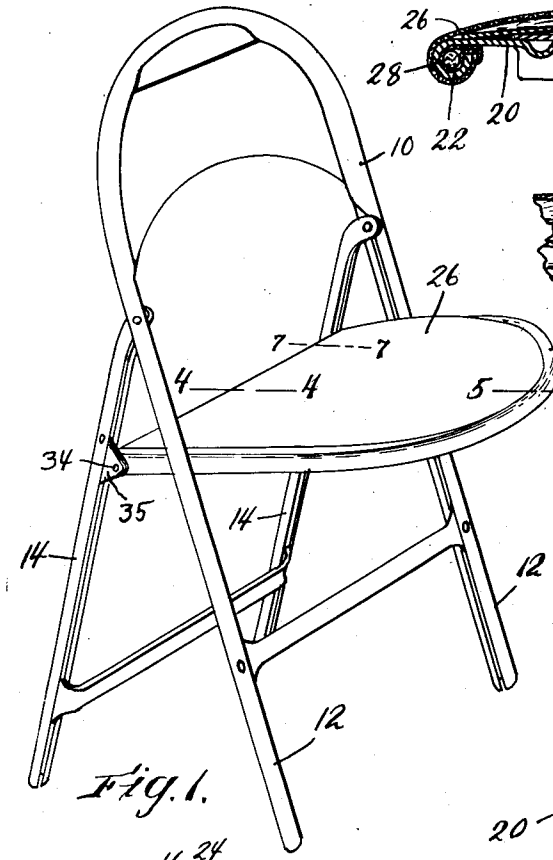


Fig. 1.

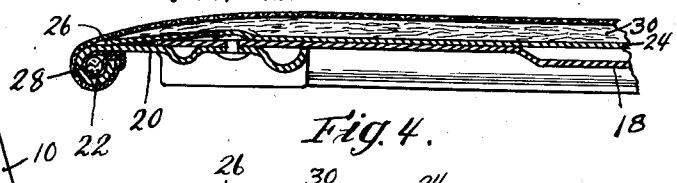


Fig. 4.

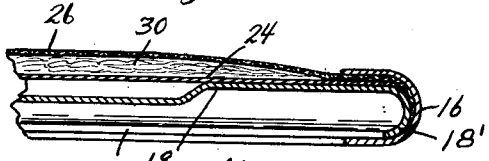


Fig. 5.

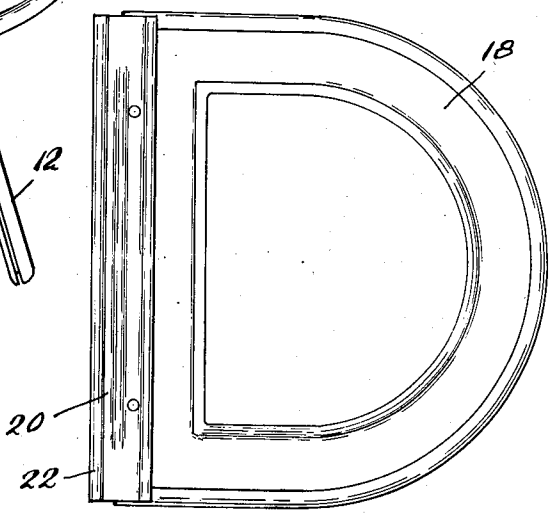


Fig. 2.

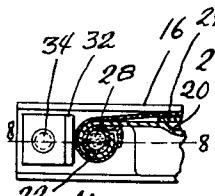


Fig. 7.



Fig. 6.

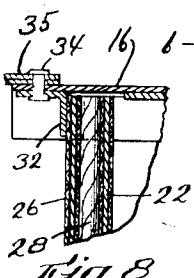


Fig. 8.

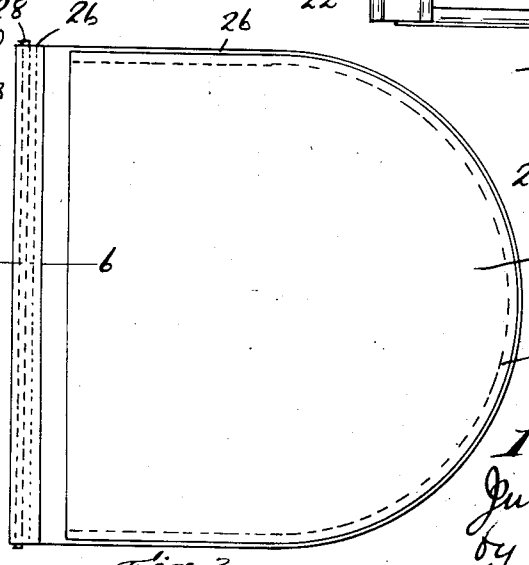


Fig. 3.

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Patented July 2, 1929. 1,719,532

UNITED STATES PATENT OFFICE.

JULIUS L. CABLE, OF BOSTON, MASSACHUSETTS.

CHAIR.

Application filed July 16, 1927. Serial No. 206,187.

This invention relates to chairs and primarily to chairs of the folding type, in which a rigid seat frame is pivotally connected to the legs and the seat is upholstered.

In attempting to manufacture chairs of this type entirely of metal, one of the chief difficulties which has been encountered is in providing a practical means for securing a cushion to an all-metal seat, or in otherwise upholstering the same, and the primary object of the present invention is to provide an all-metal chair of the above mentioned type in which the construction permits the seat to be readily upholstered, so that the manufacturing cost may be substantially reduced and the upholstering material may be secured in a manner in which the possibility that it may be displaced in use will be practically eliminated, and, at the same time, a chair of finished appearance may be produced.

I accomplish these objects by means of the construction hereinafter described and as illustrated in the accompanying drawing in which:

Fig. 1 is a perspective view of a folding chair of a type in which my invention is preferably embodied.

Fig. 2 is a detail view of under side of the chair bottom.

Fig. 3 is a detail view of the top side of the seat upholstery before application to the seat.

Figs. 4 and 5 are detail sectional views, at lines 4—4 and 5—5 of Fig. 1, respectively.

Fig. 6 is a detail sectional view at line 6—6 of Fig. 3.

Fig. 7 is a detail sectional view at line 7—7 of Fig. 1.

Fig. 8 is a similar view at line 8—8 of Fig. 7.

In Fig. 1 of the drawing a type of chair is illustrated, in connection with which my present invention is primarily designed to be used, although it may be employed in connection with chairs of other types.

This construction comprises a back frame 10 of U-form, the end portions of which form the front legs 12, said frame being made from a continuous strip of sheet metal bent in rounded channel form with the open side facing inward. Rear legs 14 of similar material and construction are provided, the latter being pivoted at their upper ends to the sides of the back frame. The seat frame 16 is also composed of rounded channel form metal shaped into a rigid U-form, providing a semi-circularly curved front portion and parallel side portions, the latter, at their ends, being pivotally and slidably connected to the rear legs 14 and being pivoted at intermediate points to the front legs 12, as more specifically described in my application Serial No. 187,423. Said seat frame is open at its inner side providing a continuous recess extending from end to end thereof and having parallel upper and lower surfaces and a transversely concave intermediate surface or bottom.

I further provide a seat, or bottom plate 18 shaped to correspond to the frame 16 and having its edge portion 18′ bent downward and inward, to form an oblique surface at its edge arranged to engage the upwardly inclined bottom surface of the seat frame recess, as shown in Fig. 5.

While the entire bottom seat plate may be made in one continuous piece, its rear portion is preferably made separately therefrom, a rear plate 20 being provided which extends beneath the rear portion of the plate 18 and is riveted thereto, partly for the purpose of increasing the strength and partly to simplify manufacturing processes. The rear edge portion of the rear plate 20 is extended perpendicularly to the side edges and is bent downwardly, forwardly and upwardly to provide a curved tongue 22 and form a tubular rear edge portion, or open ended chamber having a slot opening thereto thruout its length between the under side of the plate and the end of the tongue.

In providing the seat plate with a cushion, a stiffening sheet of card board 24 is cut out to fit the top side of the bottom plate, formed by plates 18 and 20, so that, when in position thereon, its edges will extend to the points at which the edge portion 18′ extends downward from the main portion and the tongue 22 extends downward at the rear. A sheet of cloth or leather 26, which is to form the top cover of the cushion, is cut out correspondingly, except that its rear portion is arranged to extend beyond the rear edge of the cardboard sheet and is provided with a thickened rear edge formed by wrapping its edge portion about a cord 28 and securing the same therein by a row of stitches close to the cord. A suitable quantity of cushioning material 30 is placed between the middle portion of the cardboard and covering sheet 26, the edges of sheet 26 are brought

into coincidence with the edges of sheet 24 and the edge portions are connected by a row of stitches 31, which are extended completely about the front and side edges thereof.

The parts are then ready to be assembled and, in doing this, the thickened edge portion, or cord enclosing portion of the cover 26 is first inserted in the tubular space enclosed by the tongue 22 from one end, and slid along therein until said cord enclosing portion is equally spaced with relation to the side edges of the bottom plate. Then the cover is swung about the rear edge of the plate onto the top thereof, and is drawn forward so that it rests thereon in coincidence therewith. Then the plate, with the cushion held in this position, is slid into the internal groove or recess formed by the frame 16, so that the edge portions of the cover and card board bottom are carried beneath the upper sides of the frame 16. The down and inturned edge portion 18 of the bottom plate is so arranged that, when the plate has been forced nearly into its final position, its edge portion will engage the upwardly inclined surface of the lower portion of the seat frame, so that, on being forced further inward, the seat plate will be forced upward, causing the edge portions of the cover 26 and cardboard 24, which latter up to this point has held the cover in place, to be firmly clamped between the under side of the top portion of the frame and the top side of the edge portion of the plate, so that the cushion will be firmly clamped in position and held against displacement.

This is done before the seat frame is attached to the legs, as described in said application, which operation may now be performed, and, for the purpose of providing means for firmly securing the seat plate in this position, angle brackets 32 are provided which are secured in position by pivot bolts 34 which connect the rear ends of the seat frame with the rear legs 14, thru the clip 35, which are slidably mounted therein as indicated in Figs. 7 and 8.

As thus constructed, the chair presents a finished appearance and there is practically no liability that the cushion will be displaced in use. Also the assembling operation may be rapidly performed, and may be much more rapidly performed than with a previous construction in which I attached the covering directly to the downturned edge before inserting the seat plate in the frame 16, the stiffening sheet of cardboard serving to hold the covering tightly over the cushioning material until the edge portion thereof is firmly clamped to the frame.

I claim—

1. In a chair having a rigid U shaped seat frame of channel form metal with its open side facing inward and providing a continuous parallel sided recess with its ends opening at the rear of the seat, a seat bottom therefor adapted to be slid into said frame and comprising a sheet metal bottom plate adapted to be fitted into said recess, an upholstering cover secured at its rear end to said plate and extending over the top side thereof, a stay sheet extending over said plate beneath said cover, cushioning material interposed between said cover and sheet and means for holding said cover in position on said sheet as the plate is being inserted in said frame.

2. In a chair having a rigid U shaped seat frame of channel form metal with its open side facing inward and providing a continuous parallel sided recess with its ends opening at the rear of the seat, a seat bottom therefor adapted to be slid into said frame and comprising a sheet metal bottom plate adapted to be fitted into said recess, an upholstering cover secured at its rear end to said plate and extending over the top side thereof, and a stay sheet extending over said plate beneath said cover and attached to the front and side edge portions of said cover to hold it stretched in position over the plate as the latter is inserted in said frame, said plate being constructed to clamp the edge portions of the cover against the top side of said recess when in position therein.

In testimony whereof, I have signed my name to this specification.

JULIUS L. CABLE.