

June 28, 1932.

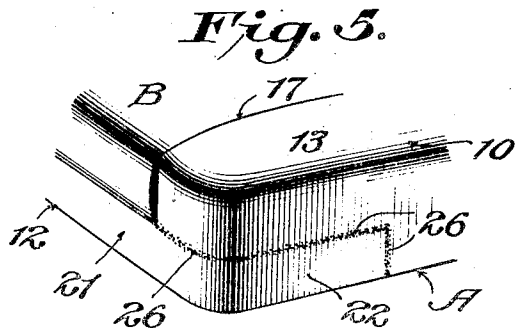
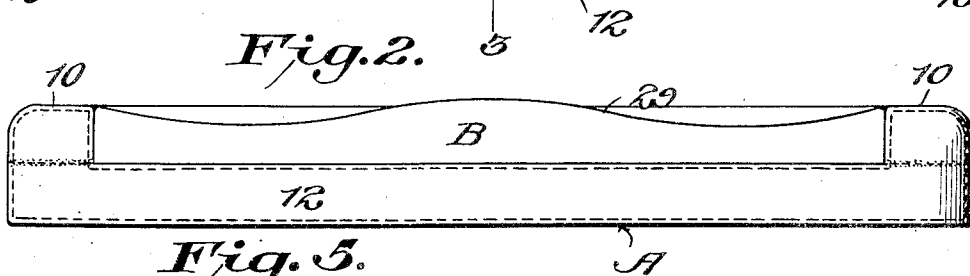
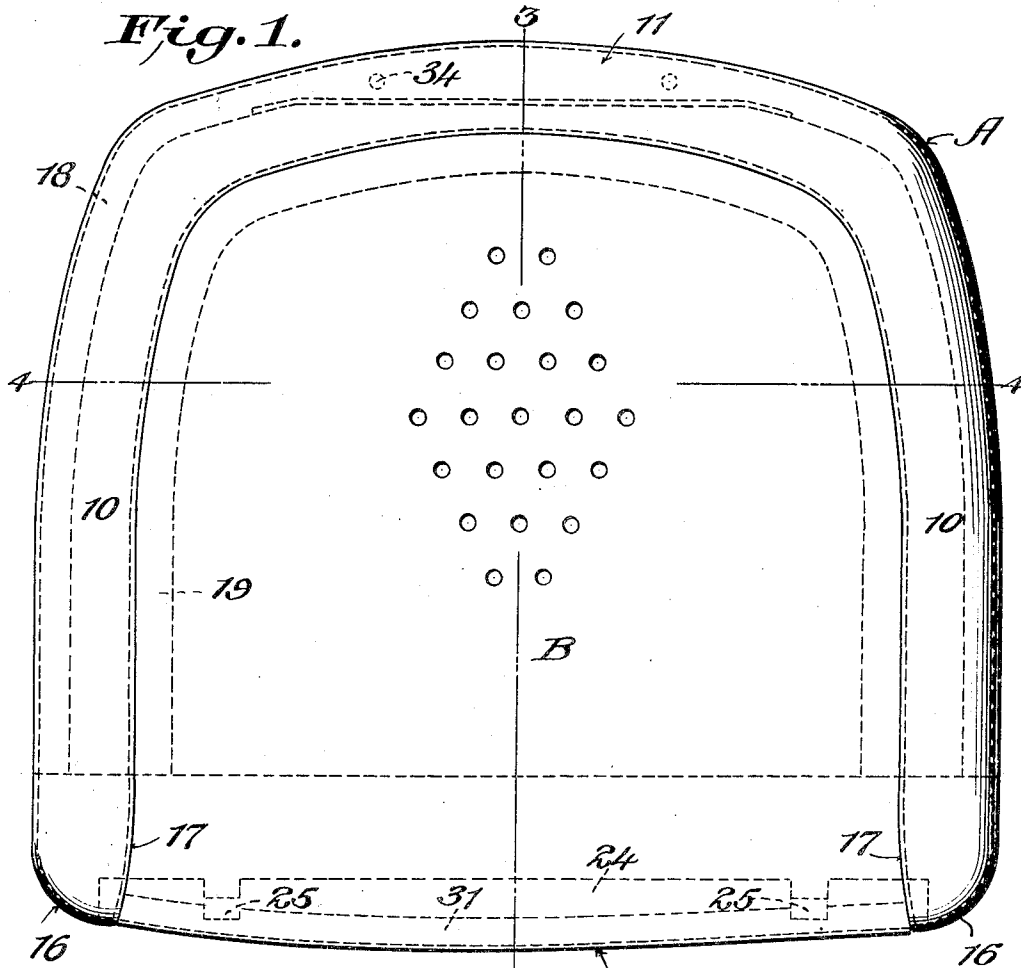
G. T. GOURLEY ET AL

1,865,313

CHAIR SEAT

Filed July 30, 1930

2 Sheets-Sheet 1



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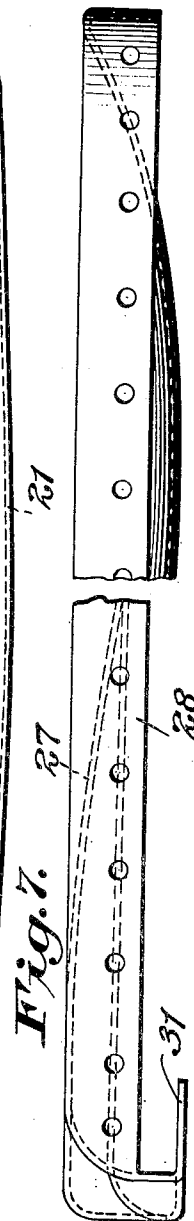
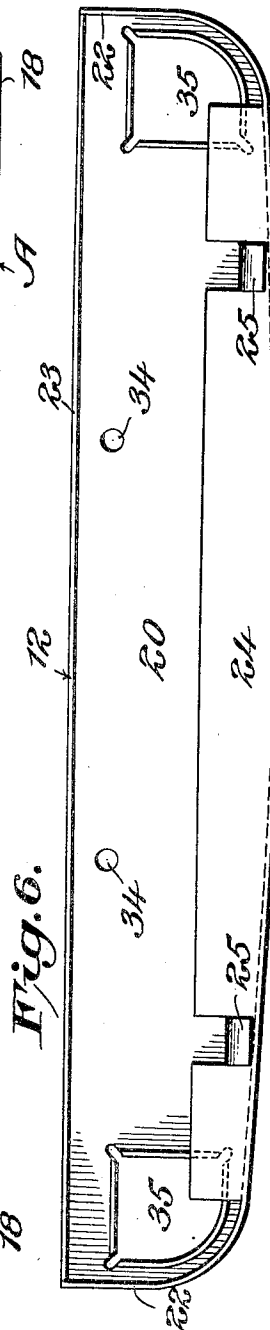
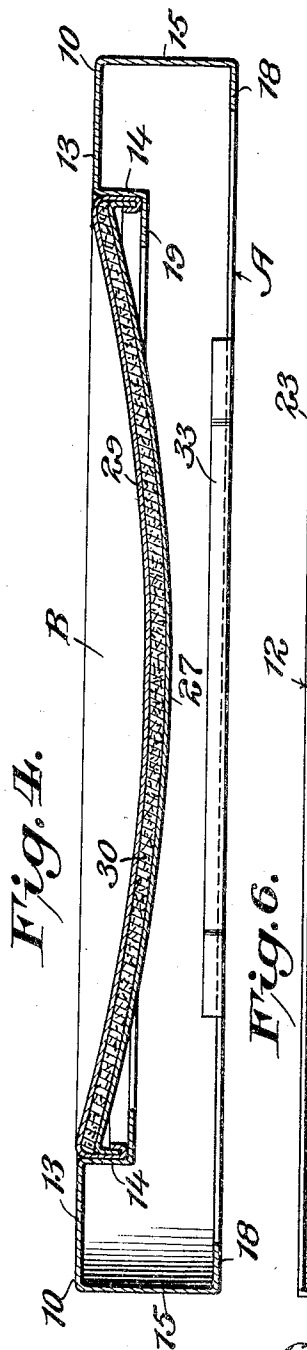
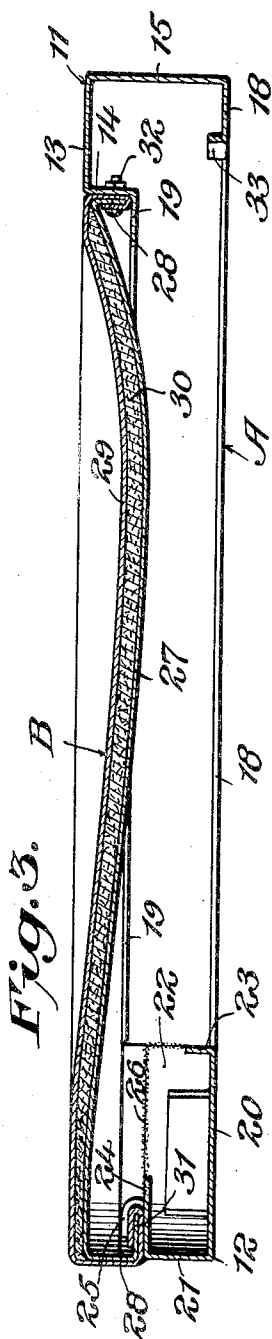
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CHAIR SEAT

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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CHAIR SEAT

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This invention relates to chair seats of the type including a seat frame and a seat bottom removably mounted thereon, and has for its general object to provide a chair seat of this character which may be produced economically and with facility from sheet metal, and which is strong and durable and thoroughly satisfactory in use.

Another object of the invention is to provide a chair seat of the character mentioned embodying novel means for removably mounting the seat bottom on the seat frame, whereby the former may expeditiously be assembled with and removed from the latter.

Another object of the invention is to provide a chair seat of the character mentioned embodying a seat frame composed of only two main parts, each of which is of a design adapting the same to be pressed or otherwise formed from a single blank of sheet metal, and which, when operatively assembled with one another, serve to produce a seat frame which is self-sustaining; i. e., not dependent on the seat bottom for rigidity and strength, and which is inclusive of formations constituting a firm support for the seat bottom.

A further object of the invention is to provide a seat bottom of novel design especially adapting the same to be formed from sheet metal for interlocking cooperation with the present seat bottom.

With the foregoing and other objects in view, which will become more fully apparent as the nature of the invention is better understood, the same consists in the novel features of construction, combination and arrangement of parts as will be hereinafter, more fully described, illustrated in the accompanying drawings, and defined in the appended claims.

In the drawings, wherein like characters of reference denote corresponding parts in the different views:—

Figure 1 is a top plan view of a chair seat constructed according to one practical embodiment of the invention.

Figure 2 is a front elevation.

Figure 3 is a longitudinal section on the line 3—3 of Fig. 1.

Figure 4 is a transverse section on the line 4—4 of Fig. 1.

Figure 5 is a detail perspective view of one corner of the chair seat.

Figure 6 is a detail plan view of the front rail of the seat frame; and

Figure 7 is a detail side elevation of the sheet metal element of the seat bottom.

Referring to the drawings in detail, it will be observed that the present chair seat is of simple construction and, considered as an entirety, is composed of only two main parts, viz., a seat frame, designated generally as A, and a seat bottom, designated generally as B.

The seat frame A comprises a pair of side rails 10, 10, a rear rail 11 and a front rail 12, all of which are pressed or otherwise suitably formed from sheet metal, the side rails being formed in one piece with the rear rail, and the front rail being formed as an element separate from the side and the rear rails and being adapted to be welded or otherwise rigidly connected with the front ends of the side rails, either permanently or detachably, to complete the seat frame.

The side rails 10, 10 of the seat frame A are duplicates of one another, and the rear rail 11 of said frame is a substantial duplicate of the side rails, each of said rails in cross section being inclusive of a top wall 13 and inner and outer vertical side walls 14 and 15, respectively, depending from the inner and the outer edges of the top wall, corresponding walls of said rails constituting continuations of one another as is manifest.

At their front ends the side rails 10, 10 are provided, as viewed in plan, with rounded outer corners 16 and with inner faces 17 which are curved gently outward to provide what may be termed a flared mouth between said side rails 10, 10 to facilitate assembly of the seat bottom B with the seat frame A, the outer side walls 15 of the side rails extending around the front curved ends of said rails and closing said ends, and the inner side walls 14 extending to the front ends of said side rails into substantial abutting relation at their front edges with the front edges of the outer side walls 15, said side walls preferably being

welded or otherwise suitably connected together at their front edges to increase the stiffness and the rigidity of the seat frame at the ends of the side rails.

The outer side walls 15 of the side and rear rails 10, 10 and 11, respectively, which walls may be of any suitable depth, are bent to extend horizontally inward at their bottoms, as best shown in Figs. 3 and 4, to provide stiffening and reinforcing flanges 18, while the inner side walls 14 of said rails, which walls are of less depth than the outer side walls 15, also are bent to extend horizontally inward at their bottoms to provide a supporting flange or shelf 19 for the seat bottom.

The flanges 18 and 19 terminate at their front ends inwardly of the front ends of the side rails 10, 10 a distance approximately equal to the width of the front rail 12 of the seat frame, while from the front ends of said side rails inwardly approximately to the front ends of said flanges, the outer side walls 15 of said side rails are cut away, as best indicated in Fig. 5 of the drawings, for the reception of the ends of the front rail 12.

The front rail 12 which is of a length corresponding to the distance between the outer faces of the side rails 10, 10 at the front ends of the latter, consists essentially of a bottom wall 20 flanged upwardly at its front, as at 21, at its ends as at 22, and preferably at its rear as at 23, the end flanges 22 constituting integral continuations of the front flange 21 and said front and end flanges, where they join one another, being curved corresponding to the curvature of the corners 16 of the side rails 10, 10 as shown.

At its top the front flange 21 of the front rail 12 is bent to extend horizontally inward to provide a stiffening and reinforcing flange 24 for the front rail and also a support for the front portion of the seat bottom B, this flange having a tongue or tongues 25 bent upwardly and forwardly therefrom for a purpose which will presently appear.

The ends of the front rail 12 are disposed in the cut-out portions at the front ends of the side rails 10, 10, with the end flanges 22 flush with and forming substantial continuations of the outer side walls 15 of said side rails, adjacent edges of the side walls 15 and the flanges 22 being disposed in abutting relation and being welded to one another as indicated at 26. Thus, obviously, the front end portions of the side rails 10, 10 are connected rigidly together and are held effectively against being spread apart or moved towards one another.

The seat bottom B consists of a sheet metal base plate 27 corresponding in shape to the seat frame and of suitable longitudinal and transverse contour, having a continuous downturned marginal flange 28 which is apertured or otherwise suitably formed to receive fastening means for securing a covering

29 of leather, fabric or other material over said base plate, there preferably being a pad in the form of a layer of felt or equivalent material 30 placed upon the top of said base plate, and the covering 29 being disposed over this pad and extended downwardly over the sides and around the lower edges of the flange 28; the fastening means for said covering passing through the apertures in said flange and through the downturned marginal portions of the covering.

At the front of the plate 27 the flange 28 thereof is extended horizontally inward as at 31 for cooperation with the tongue or tongues 25 as the case may be. Thus, to assemble the seat bottom B with the seat frame A, the seat bottom is simply placed within the seat frame with its flange 28 resting upon the flange or shelf 19 of the seat frame and upon the top of the front rail, with the inner edge of the flange 31 disposed in advance of the tongue or tongues 25 and alined with the space or spaces between said tongue or tongues and the top of the flange 24. The seat bottom then is adapted to be pushed inward relative to the seat frame to its final or operative position with respect to said frame, such movement resulting in the flange 31 being engaged beneath the tongues 25 whereby the front end of the seat bottom becomes interlocked with the front rail 12. At the same time the flange 28 of the seat bottom at the rear thereof abuts the inner side wall 14, of the rear rail 11 and thus, by simply engaging a bolt 32 or other suitable form of fastener through the flange 28 and the wall 14, as shown in Fig. 3 of the drawings, the seat bottom may readily and easily be secured to the seat frame, and when so secured the same is held effectively assembled therewith until the fastener 32 is removed, while on the other hand, by removing the fastener 32 the seat bottom may readily be disengaged from the seat frame in a manner which is manifest.

Preferably the flange 18 at the rear of the frame A is extended upwardly as at 33 for stiffening and reinforcing purposes. Further, said flange and the bottom 20 of the front rail 12 preferably are provided with openings 34 for the reception of suitable fasteners to secure the seat to a base, and in this connection it will be apparent, of course, that the frame A may be provided with suitable means such, for example, as the marginally flanged openings illustrated at 35 in the bottom of the front rail 12 whereby chair legs may be directly connected with said frame.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from

the spirit of the invention and scope of the appended claims.

We claim:—

1. A chair seat comprising a seat frame
5 composed of side, rear and front rails, inwardly directed seat bottom supporting formations carried by the side and rear rails, the front rail being formed from sheet metal and comprising a bottom wall, a front wall
10 and a flange extending rearwardly from the top of the front wall, tongues integral with said flange bent to extend upwardly and forwardly therefrom, a seat bottom adapted to rest at its sides and rear on said supporting
15 formations and at its front on the flange of said front rail, an inwardly directed flange on said seat bottom at the front thereof for engagement beneath said tongues, and means for securing the rear portion of said seat bottom to the rear rail of said seat frame.
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2. In a chair seat, a seat frame inclusive of a sheet metal front rail having a front wall and a flange extending rearwardly from the top of said front wall, said flange being
25 slitted to provide a tongue and said tongue being bent to extend upwardly and forwardly relative to said rail, a seat bottom to rest on said seat frame, and an inwardly directed flange on said seat bottom at the front thereof for engagement beneath the tongue of the
30 seat frame front rail by rearward movement of the seat bottom relative to the seat frame.

In testimony whereof we hereunto affix our signatures.

35 GLENN T. GOURLEY.
ALFRED J. BALL.

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