

March 9, 1948.

C. P. MOLLA

2,437,304

KNOCKDOWN WROUGHT IRON CHAIR

Filed Feb. 18, 1946

Fig. 1.

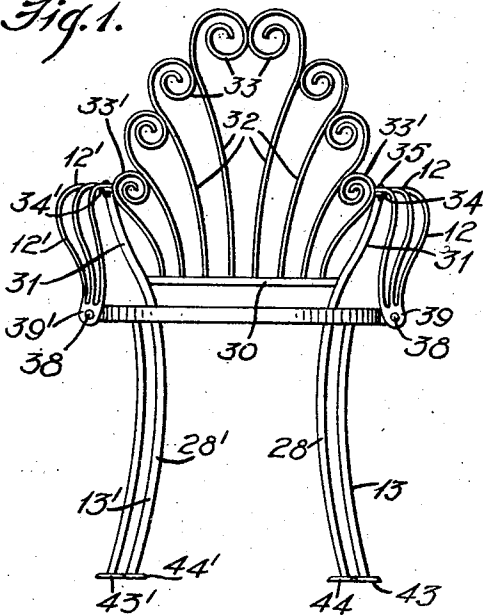


Fig. 2.

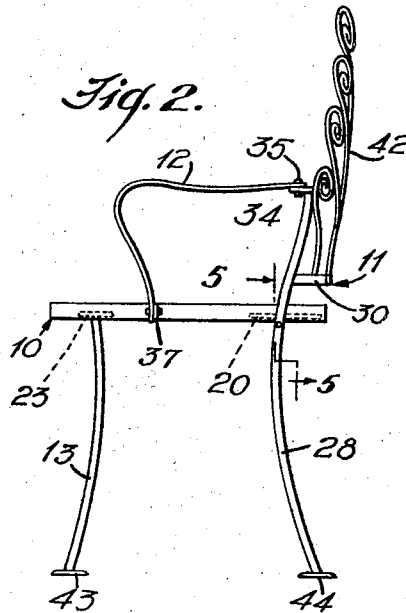


Fig. 3.

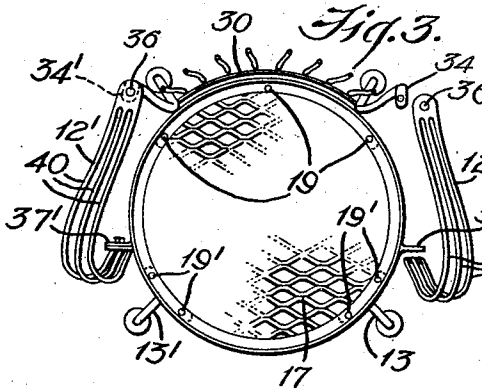


Fig. 4.

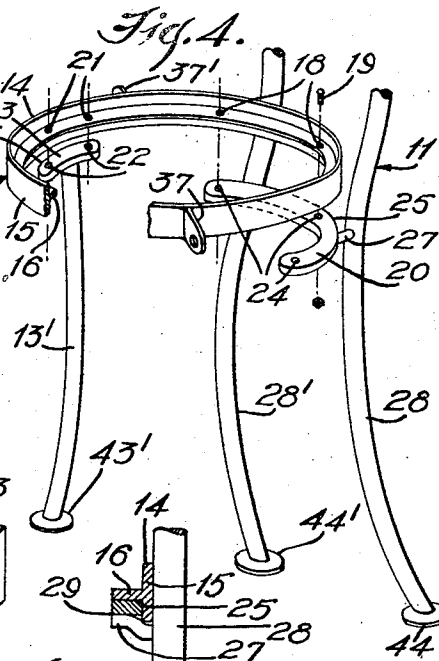


Fig. 6.

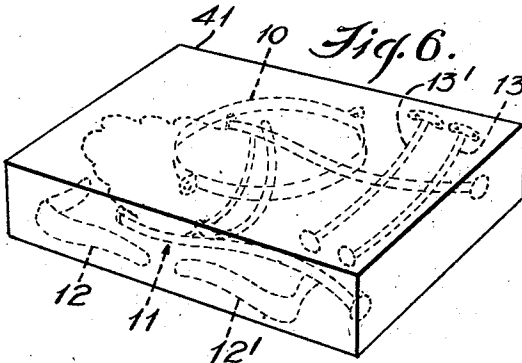


Fig. 5.

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2,437,304

KNOCKDOWN WROUGHT IRON CHAIR

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Application February 18, 1946, Serial No. 648,398

14 Claims. (Cl. 155—194)

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This invention relates to chairs sometimes identified as wrought iron chairs adapted for porch, terrace and outdoor use. More particularly, the invention deals with chairs of the kind defined constructed of detachably coupled parts or sections, thereby facilitating packaging of the complete knockdown chair in a relatively thin box or carton of length and width governed primarily by the length and width of one part or section of the chair, for example, the back and rear leg section. Still more particularly, the invention deals in a knockdown chair construction wherein the intercoupled parts have interengaging means for rigidly maintaining the parts in assembled relationship. The novel features of the invention will be best understood from the following description when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed, and in which the separate parts are designated by suitable reference characters in each of the views; and in which:

Fig. 1 is a front view of a chair made according to my invention.

Fig. 2 is a side view of the chair as seen in Fig. 1.

Fig. 3 is an exploded plan view of the chair showing one arm attached with the other arm ready for attachment, and with the upper part of the back rest cut away.

Fig. 4 is an enlarged, diagrammatic, exploded, perspective view showing the method of assembling the seat frame with the back leg frame and front legs, one of the front legs only being shown and with part of the construction broken away.

Fig. 5 is an enlarged section on the line 5—5 of Fig. 2; and

Fig. 6 is a perspective view diagrammatically illustrating the packaging of the knockdown chair.

In constructing metal or wrought iron chairs of the type and kind adapted for porch, terrace and other outdoor uses, it has been customary to construct the chair in a more or less permanent assemblage. This method of procedure has necessitated storing chairs, as well as shipment of chairs in a relatively large package, difficult for wrapping or handling, and taking up large space in transportation cars or vehicles, thereby minimizing the number of complete chairs in such a shipment. Furthermore, chairs of this permanent construction have presented a problem of storage in the home, by reason of the space occupied thereby in storage and by reason

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of this fact, limited uses have been made of chairs of the kind under consideration.

It is the purpose of my invention to so construct a chair as to facilitate compact packaging for storage, shipment and transportation, and further in storage in the home in mid-seasons and when not in use.

Chairs of the kind under consideration are supplied in a few different colors or a combination of colors and are usually sold with cushions for the seats and the cushions may be sold and packaged separately, particularly in facilitating selection as to the base color of the chair and the color of cushions employed.

It is also well to point out at this time that chairs of the kind under consideration can be constructed in different shapes and contours, particularly with respect to the shape of the seat and the back rest portion of the back frame or section as well as in the arm rests employed.

In the present illustration of my invention, I employ a round seat section 10, a rear leg and back rest section 11, two similar substantially L-shaped arms 12, which in Figs 1 and 3 of the drawing are identified as 12—12', and two similar front legs designated in Figs. 1 and 3, as 13—13'. As the arms and front legs are of the same construction, the brief description of one will apply to both. The seat section 10 comprises a circumferential frame 14 of T-shaped cross sectional form, in other words, comprising an outer vertical plate 15 and a central horizontal plate 16, note Figs. 4 and 5.

Welded or otherwise secured to the horizontal part 16 is a lattice, mesh or other openwork seat facing, part of which is shown at 17, in Fig. 3 of the drawing. This construction forms a spring type seat construction and the recessed top of the seat forms a recess for retaining a cushion, not shown, against displacement from the seat. The horizontal or flange portion 16 of the frame 14 has three spaced apertures at the rear portion thereof, as indicated at 18, for the reception of bolts, as at 19, in Fig. 3 of the drawing, in securing the seat section 10 to the curved bracket portion 20 of the back section 11. In Fig. 4 of the drawing, the seat body 17 has been omitted for sake of clarity in the diagrammatic illustration of the exploded parts in said figure.

The horizontal or flange portion 16 of the frame 14 has two pairs of openings at the forward side portions thereof, one pair of which are illustrated at 21, in Fig. 4 of the drawing. Bolts or similar fasteners 19' are passed through these

openings and through registering openings 22 in curved heads 23 at the upper end of each front leg 13—13'. In this connection it will also appear that the bracket 20 has apertures 24 which align with the apertures 18 in receiving the bolts 19. The bracket 20 as well as the heads 23 have curved outer surfaces 25 and 26 respectively, which are adapted to seat snugly upon the inner surface of the vertical wall 15 of the frame 14, beneath the flange 16, and to conform with the contour of the wall 15, so as to prevent any possible twisting or turning of the legs 13—13' in the section 10 or the back section 11, in the section 10.

The bracket 20 has welded or otherwise secured thereto outwardly extending coupling rods 27, which are secured to the legs 23—23' of the rear section 11. This mounting of the bracket 20 forms between the surface 25 of the bracket and the legs 23—23' a recess 29 for receiving the lower portion of the front perpendicular wall 15 of the frame 14, as clearly illustrated in Fig. 5 of the drawing. This fitting is relatively snug, but free, and in this respect, the illustration in Fig. 4 of the drawing is somewhat exaggerated for sake of clarity. The showing in Fig. 5 is more accurate.

The bracket 20 spaces and reinforces the legs 23—23', and when the seat section 10 is secured in position, this seat further braces and supports the legs, as will be apparent. Joining the legs above the bracket 20 is a curved back strap 30, note Figs. 1 and 2, which joins the upper and outwardly flared portions 31—31' of the back legs 23—23'. Secured to, and extending upwardly from the back strap 30 are a plurality of rods 32 having coiled upper ends as at 33, the upper ends being welded together in the manner most clearly illustrated in Fig. 1 of the drawing. The upper coiled ends 33' of the two side rods are welded or otherwise secured to the upper ends 31—31' of the rear legs. The upper ends of the rear legs have horizontally arranged bracket portions 34—34' apertured to receive bolts 35 which also pass through apertures 36—36' in the rear portions of the arms 12—12'.

Welded or otherwise secured to the frame 14 at front side portions thereof are outwardly extending apertured brackets 37—37' adapted to receive bolts 38 which also pass through apertures in the lower ends 39—39' of the arms 12—12'. The arms are made of a plurality of rods 40 similar to the rods 32 and united in the upper and lower ends to facilitate coupling with the respective bracket supports. The rods of the arms 12—12' are curved in the manner illustrated in Figs. 1 and 3, and as further shown in Fig. 2 of the drawing to form comparatively wide arm rest portions, and these arms further brace and support the seat section 10 and back section 11 in the assembled chair.

When the chair is in knockdown condition, the various parts 10, 11, 12 and 13 can be compactly assembled in a box or carton, such as shown at 41 in Fig. 6 of the drawing for storage and shipment thereof. Further this carton may be utilized as a means for storing and putting away the knockdown chair when the same is not in use.

In Fig. 6 the various parts or sections are diagrammatically illustrated in dotted lines in the carton and it will be apparent that the size of the carton will be governed by the size of the back frame 11, particularly with respect to length and width, whereas thickness will be governed partially to the curvature of the section 11 as appear-

ing in Fig. 2, and the assemblage of the other parts in the carton.

It will appear from a consideration of Figs. 1 and 2 of the drawing that the legs 13—13' are curved inwardly intermediate the ends thereof, and a more or less similar curvature is given to the lower portions of the back legs 23—23', the latter extending above the seat section 10 and flaring outwardly in the manner illustrated in Fig. 1, in producing a relatively wide seat construction. The arms 12—12' also flare outwardly, as will appear at the left of Fig. 3 of the drawing to give a wide entrance to what otherwise might be regarded as a relatively small seat.

For reference purpose, the rod assemblage 32—33, including the band 30 may be referred to as a back rest portion 42 on the section 11. The front legs 13 terminate at their lower ends in relatively large disc feet 43—43' and the rear legs terminate in similar feet 44—44', these feet are adapted to prevent piercing a turf or similar ground when the chairs are used on a lawn and also to distribute the load on a carpet or rug.

In assembling the chair from its knockdown condition, the front legs 13—13' can first be assembled on the seat frame 14, after which the frame with the legs thereon can be coupled with the bracket 20 of the back section 11, after which the arms 12—12' can be assembled.

Considering Figs. 2 and 3 of the drawing, it will appear that the rod back rest 42 is curved, as viewed in plan, to provide a curved back and the back rest is also curved upwardly, as seen in Fig. 2, so as to provide a comfortable back rest support for the occupant of the chair.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A knockdown wrought iron chair comprising a back section and seat section, the back section comprising a pair of rear leg members integrally joined at the upper end in a back rest portion, the back rest portion being curved intermediate said legs, a bracket integrally joining and spacing the leg members below the back rest portion, the seat section comprising a frame having an openwork seat portion within the frame, means detachably coupling the frame of the seat section with the bracket of the back section, front leg members, and means detachably coupling upper ends of the front leg members with the front portion of the frame of said seat section.

2. A knockdown wrought iron chair comprising a back section and seat section, the back section comprising a pair of rear leg members integrally joined at the upper end in a back rest portion, the back rest portion being curved intermediate said legs, a bracket integrally joining and spacing the leg members below the back rest portion, the seat section comprising a frame having an openwork seat portion within the frame, means detachably coupling the frame of the seat section with the bracket of the back section, front leg members, means detachably coupling upper ends of the front leg members with the front portion of the frame of said seat section, upper end portions of the leg members of the back section flaring outwardly above the seat section, and the back rest portion including a band joining said end portions of the rear legs above the seat section.

3. A knockdown wrought iron chair comprising a back section and seat section, the back section comprising a pair of rear leg members integrally joined at the upper end in a back rest

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portion, the back rest portion being curved intermediate said legs, a bracket integrally joining and spacing the leg members below the back rest portion, the seat section comprising a frame having an openwork seat portion within the frame, means detachably coupling the frame of the seat section with the bracket of the back section, front leg members, means detachably coupling upper ends of the front leg members with the front portion of the frame of said seat section, upper end portions of the leg members of the back section flaring outwardly above the seat section, the back rest portion including a band joining said end portions of the rear legs above the seat section, and arm rest members detachably coupled with the upper ends of the rear leg members and with the sides of the frame of said seat section.

4. A knockdown wrought iron chair comprising a back section and seat section, the back section comprising a pair of rear leg members integrally joined at the upper end in a back rest portion, the back rest portion being curved intermediate said legs, a bracket integrally joining and spacing the leg members below the back rest portion, the seat section comprising a frame having an openwork seat portion within the frame, means detachably coupling the frame of the seat section with the bracket of the back section, front leg members, means detachably coupling upper ends of the front leg members with the front portion of the frame of said seat section, upper end portions of the leg members of the back section flaring outwardly above the seat section, the back rest portion including a band joining said end portions of the rear legs above the seat section, arm rest members detachably coupled with the upper ends of the rear leg members and with the sides of the frame of said seat section, and said arm rest members intermediate the ends thereof being of openwork construction.

5. A knockdown wrought iron chair comprising a back section and seat section, the back section comprising a pair of rear leg members integrally joined at the upper end in a back rest portion, the back rest portion being curved intermediate said legs, a bracket integrally joining and spacing the leg members below the back rest portion, the seat section comprising a frame having an openwork seat portion within the frame, means detachably coupling the frame of the seat section with the bracket of the back section, front leg members, means detachably coupling upper ends of the front leg members with the front portion of the frame of said seat section, upper end portions of the leg members of the back section flaring outwardly above the seat section, the back rest portion including a band joining said end portion of the rear legs above the seat section, arm rest members detachably coupled with the upper ends of the rear leg members and with the sides of the frame of said seat section, said arm rest members intermediate the ends thereof being of openwork construction, the back rest portion comprising a plurality of rods, the lower ends of the rods being secured to said band, and the upper ends of said rods having united coiled portions.

6. A knockdown metal chair comprising a back section, a seat section and front leg members, said back section comprising a pair of long rods forming rear leg members of the chair, a back rest portion integrally joining upper ends of said rods, a bracket integrally joining and spacing the rods below the back rest portion, said bracket

being arranged and spaced forwardly of said rods to form channels between the bracket and rods, said seat section comprising a peripheral frame, the frame in cross section having an outer vertical wall portion and an inner horizontal flange portion, said horizontal flange portion being adapted to seat on the bracket of the back section with the vertical wall portion fitting in the channels between the bracket and said rods, fastener devices passed through said flange and the bracket for detachably coupling the seat and back sections, said leg members having heads at the upper ends thereof adapted to seat upon the flange of the seat frame within the outer wall portion, and fastener devices detachably coupling the leg members with said flange.

7. A knockdown metal chair comprising a back section, a seat section and front leg members, said back section comprising a pair of long rods forming rear leg members of the chair, a back rest portion integrally joining upper ends of said rods, a bracket integrally joining and spacing the rods below the back rest portions, said bracket being arranged and spaced forwardly of said rods to form channels between the bracket and rods, said seat section comprising a peripheral frame, the frame in cross section having an outer vertical wall portion and an inner horizontal flange portion, said horizontal flange portion being adapted to seat on the bracket of the back section with the vertical portion fitting in the channels between the bracket and said rods, fastener devices passed through said flange and the bracket for detachably coupling the seat and back sections, said leg members having heads at the upper ends thereof adapted to seat upon the flange of the seat frame within the outer wall portion, fastener devices detachably coupling the leg members with said flange, the frame of the seat section being circular in form, and said bracket and the heads of said leg members being curved to conform with the curvature of the seat frame.

8. A knockdown metal chair comprising a back section, a seat section and front leg members, said back section comprising a pair of long rods forming rear leg members of the chair, a back rest portion integrally joining upper ends of said rods, a bracket integrally joining and spacing the rods below the back rest portions, said bracket being arranged and spaced forwardly of said rods to form channels between the bracket and rods, said seat section comprising a peripheral frame, the frame in cross section having an outer vertical wall portion and an inner horizontal flange portion, said horizontal flange portion being adapted to seat on the bracket of the back section with the vertical portion fitting in the channels between the bracket and said rods, fastener devices passed through said flange and the bracket for detachably coupling the seat and back sections, said leg members having heads at the upper ends thereof adapted to seat upon the flange of the seat frame within the outer wall portion, fastener devices detachably coupling the leg members with said flange, the frame of the seat section being circular in form, said bracket and the heads of said leg members being curved to conform with the curvature of the seat frame, a pair of substantially L-shaped arm rest members, and means at the ends of the arm rest members and on the seat frame and said first named rods for detachably coupling the arm rest members with the seat and back sections.

9. In knockdown metal chairs of the class de-

described comprising detachably coupled back and seat sections and a pair of front leg members detachably coupled with the seat sections; the back section comprising a pair of rods forming rear legs of the resulting chair, a back rest portion integrally joining upper end portions of said rods, a bracket integrally joining the rods below said back rest portions and arranged forwardly of said rods, said seat section comprising a peripheral frame of predetermined contour, said bracket conforming to the contour of and adapted to fit snugly on the frame of the seat section, and means detachably coupling the frame of the seat section with said bracket.

10. In knockdown metal chairs of the class described comprising detachably coupled back and seat sections and a pair of front leg members detachably coupled with the seat sections; the back section comprising a pair of rods forming rear legs of the resulting chair, a back rest portion integrally joining upper end portions of said rods, a bracket integrally joining the rods below said back rest portions and arranged forwardly of said rods, said seat section comprising a peripheral frame of predetermined contour, said bracket conforming to the contour of and adapted to fit snugly on the frame of the seat section, means detachably coupling the frame of the seat section with said bracket, means forming channels between the bracket and the rods of the back section, and the frame of the seat section having wall parts adapted to fit in said channels in the assemblage of said sections.

11. In knockdown metal chairs of the class described comprising detachably coupled back and seat sections and a pair of front leg members detachably coupled with the seat sections; the back section comprising a pair of rods forming rear legs of the resulting chair, a back rest portion integrally joining upper end portions of said rods, a bracket integrally joining the rods below said back rest portions and arranged forwardly of said rods, said seat section comprising a peripheral frame of predetermined contour, said bracket conforming to the contour of and adapted to fit snugly on the frame of the seat section, means detachably coupling the frame of the seat section with said bracket, means forming channels between the bracket and the rods of the back section, the frame of the seat section having wall parts adapted to fit in said channels in the assemblage of said sections, the back rest portion of the back section comprising a plurality of rods, upper end of the rods being coiled, and said coiled ends abutting and being fixedly secured to each other.

12. In knockdown metal chairs of the class described, a back section, a seat section, front leg members, the seat section comprising a peripheral frame, said frame having a perpendicular outer wall inwardly of which is a horizontal flange portion, the back section comprising a

pair of leg rods, a bracket joining and spacing said rods, said bracket conforming to and adapted to fit snugly within the outer wall of the seat frame and upon said flange, means detachably securing the bracket to the flange of the seat frame, the upper ends of the front leg members having enlarged heads conforming with the contour of the outer wall of the seat frame and adapted to seat on the flange of said frame; and means detachably securing the heads of the leg members with said seat frame.

13. In knockdown metal chairs of the class described, a back section, a seat section, front leg members, the seat section comprising a peripheral frame, said frame having a perpendicular outer wall inwardly of which is a horizontal flange portion, the back section comprising a pair of leg rods, a bracket joining and spacing said rod, said bracket conforming to and adapted to fit snugly within the outer wall of the seat frame and upon said flange, means detachably securing the bracket to the flange of the seat frame, the upper ends of the front leg members having enlarged heads conforming with the contour of the outer wall of the seat frame and adapted to seat on the flange of said frame, means detachably securing the heads of the leg members with said seat frame, and means comprising detachable arm members joining the back section above the seat section with the forward side portions of the frame of the seat section for bracing said back and seat sections.

14. In knockdown metal chairs of the class described, a back section, a seat section, front leg members, the seat section comprising a peripheral frame, said frame having a perpendicular outer wall inwardly of which is a horizontal flange portion, the back section comprising a pair of leg rods, a bracket joining and spacing said rods, said bracket conforming to and adapted to fit snugly within the outer wall of the seat frame and upon said flange, means detachably securing the bracket to the flange of the seat frame, and means on the front leg members fitting snugly in the seat frame and secured thereto for attaching the front leg members with said frame.

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