May 24, 1955 M. D. RECHLER 2,708,962

FOLDING BEACH CHAIR

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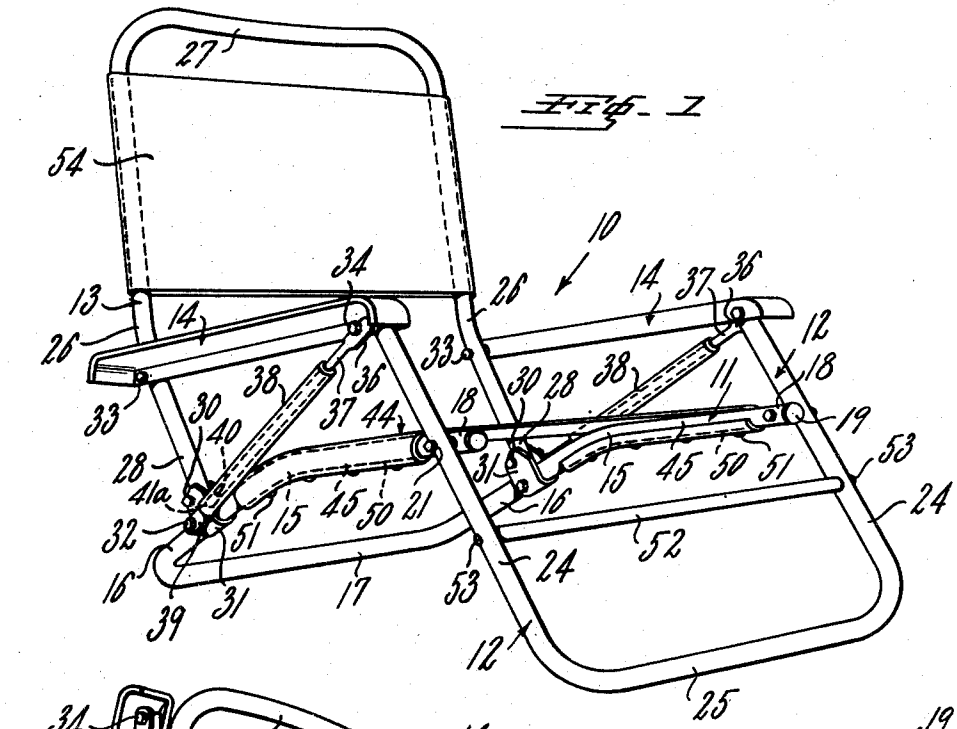


Fig. 1

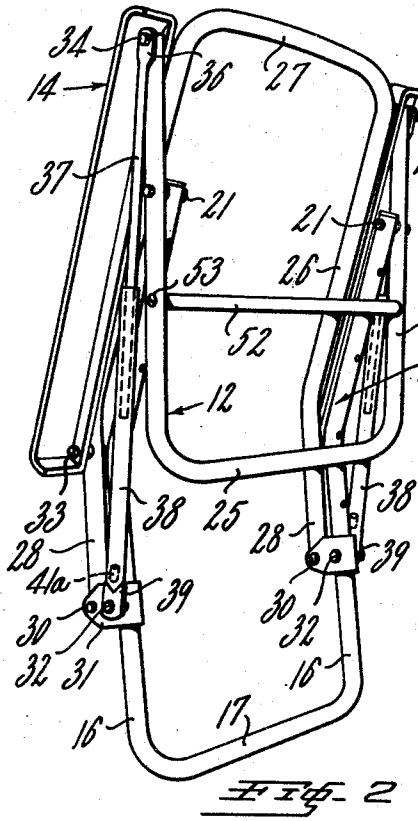


Fig. 2

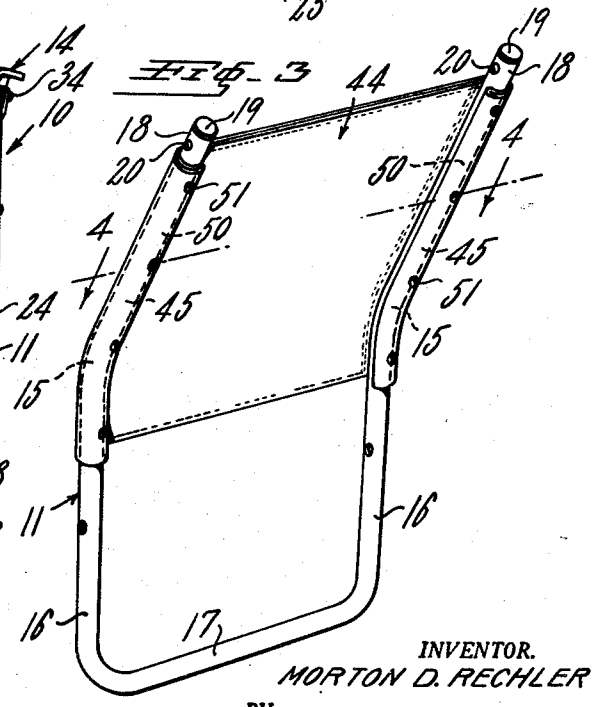


Fig. 3

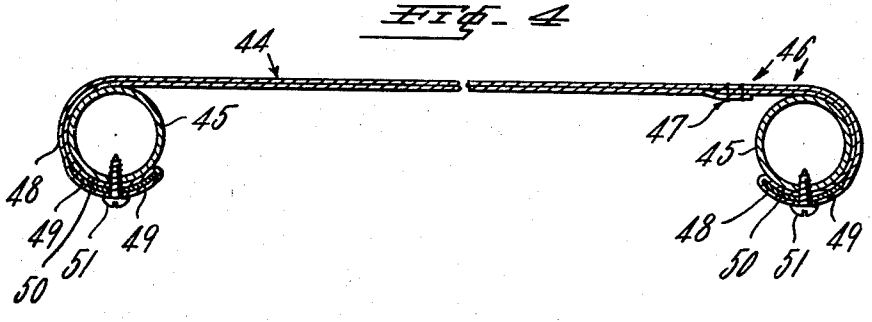
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Fig. 4



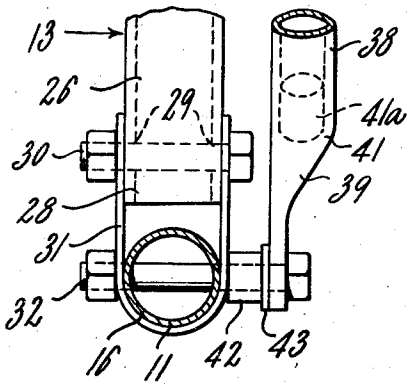


Fig. 5

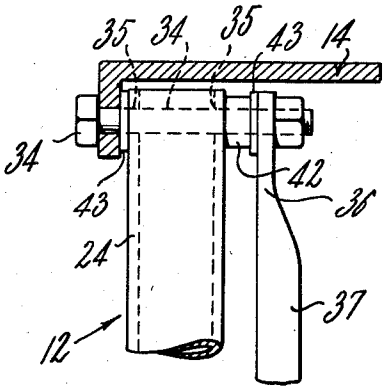


Fig. 6

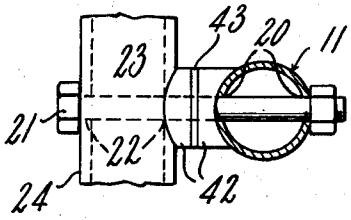


Fig. 7

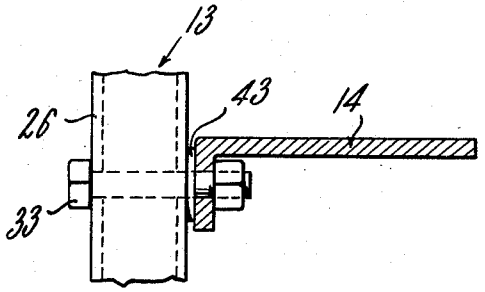


Fig. 8

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FOLDING BEACH CHAIR

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Application February 10, 1953, Serial No. 336,083

2 Claims. (Cl. 155—139)

This invention relates to chairs and particularly to the type having pivoted frame sections which operate to close the chair for carrying or open it for use.

One of the objects is to produce a chair of this kind having a one motion folding action which is operable to close the chair easily and quickly and wherein the frame sections provide rigid support when the chair is open in sitting position.

Another object is to provide a folding chair where weight is reduced to a minimum through the use of light tubular frames bent to form and pivoted together by simple fastening means easy to manufacture and assemble.

A further object is to eliminate the usual cross bar at the front of the seat frame and provide reenforcing means substantially below the plane of the frame so that there will be no rigid bar against the legs of the user.

Various other objects and advantages will appear as the description proceeds, reference being made to the accompanying drawings in which:

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

Fig. 2 is a view with the covers removed and the chair folded;

Fig. 3 is a view of the seat frame showing the method of attaching a fabric seat material;

Fig. 4 is a cross section on the line 4—4 of Fig. 3;

Figs. 5, 6, 7 and 8 are details of the pivotal fastenings of the frame elements, shown partly in section.

In the drawings the chair is indicated generally by numeral **10**, and includes in its structure a seat frame **11**, front leg frame **12**, back frame **13**, arm rests **14** and pivotal means connecting the parts together so that the chair may be folded for carrying or opened for use.

The seat frame **11** is formed by bending a length of tubular stock into a U-shaped frame having a downward bend at the points **15** to provide rear leg portions **16** and transverse portion **17** which rests upon the ground. The front ends **18** of frame **11** may be provided with finishing caps **19** to seal the tubular ends, and are also bored at **20** to receive pivot bolts **21** passed through alined holes **22** in portions **23** of legs **24** of frame **12**. The front leg frame may be U-shaped and include a transverse foot portion **25**. Back frame **13** is shown as consisting of a length of tubular stock bent to form side members **26** and top **27**, the lower ends **28** being drilled at **29** for pivot bolts **30** mounted in brackets **31** secured to portions **16** of seat frame **11** by bolts **32**.

The arm rests **14** are provided with downturned flanges as detailed in Figs. 6 and 8 and are pivoted at the rear to side members **26** by pivot bolts **33**, and are similarly pivoted at the front to the upper ends of legs **24** by bolts **34** passed through openings **35**.

Bolt **34** also provides pivotal mounting for the upper end **36** of a rod **37** which is adapted to slide in a guide cylinder **38** pivoted at its lower end **39** to seat frame **11** by bolt **32** which also passes through bracket **31**. When the chair is in open position the lower end **40** of the rod bottoms in the base **41** of the cylinder **38** or against a

slug **41***a* establishing the open positions of the frames by limiting the swing of the front frame and the back frame about their pivots.

The chair is closed by moving the seat frame upward toward the back frame. During this motion the rod **37** slides outwardly in guide cylinder **38** and reaches the position in Fig. 2 where the parts are nested together in the closed chair.

The pivotal joints are preferably provided with spacers such as indicated at **42** and friction reducing washers **43** to give necessary clearances and easy folding and unfolding action.

The seat **44** preferably takes the form of a fabric suspended by and between the side rails **45** of the seat frame. In Fig. 4 this fabric is shown as consisting of a double thickness in the form of a sleeve **46** made of a length of material stitched together at **47** producing looped side margins **48** which receive metal reenforcing strips **49** held to the undersides **50** of side rails **45** by screws **51**. Somewhat below the seat frame there is a reenforcing cross bar **52** bridged between the legs **24** of the front leg frame **12** and held in place by fasteners **53** or other suitable means. This bar insures proper spread of the seat fabric but does not come into contact with the legs of the occupant because the bar is substantially below the plane of the seat frame. The fabric seat is therefore comfortable in its ability to yield sufficiently without sagging. A sleeve type back or other appropriate cover **54** may be carried by the back frame **13** to complete the covering of the chair.

I claim:

1. In a folding chair, a U-shaped seat frame formed from a single piece of stock bent downward at an incline adjacent the middle of the frame to provide rear leg portions and a transverse foot portion, said seat frame having terminal ends at the front of the chair, brackets on said rear leg portions, a one piece U-shaped back frame provided with side members and having lower ends which are pivoted to said brackets, a one piece U-shaped front frame having leg portions pivoted to the terminal front ends of the seat frame and having upper ends extending above said seat frame, arm rests provided with downturned flanges adjacent said side members of the back frame, bolts pivotally connecting said flanges to said side members, said arm rests having forward downturned flanges adjacent the upper ends of said front frame, a pair of slide rods having upper ends located beneath said arm rests and beside the upper ends of said front frame, bolts pivotally connecting together the forward flanges of said arm rests, the associated upper ends of said front frame and the upper ends of said slide rods, guide cylinders in which said slide rods are mounted, said guide cylinders having lower ends terminating adjacent said brackets, bolts pivotally connecting the lower ends of said guide cylinders to said brackets and securing said brackets to the downwardly bent rear leg portions of the seat frame, and a reenforcing bar bridged between the legs of said front frame substantially below the plane of the seat frame, said slide rods being of a length to bottom in said guide cylinders and thereby act as stops to limit the swing of the front frame and the back frame about their pivots.

2. A folding chair according to claim 1, wherein the guide cylinderrs each contains a slug in its lower end which acts as a stop and to prevent binding of the slide rod in the lower end of the guide cylinder.

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