April 9, 1929. R. C. BENDIXEN 1,708,045

PORTABLE FOLDING CHAIR

Filed Aug. 30, 1927

Fig. 1.

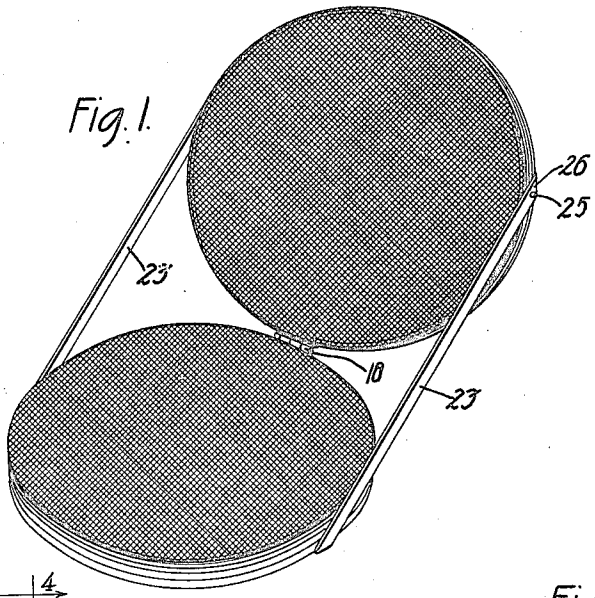


Fig. 2.

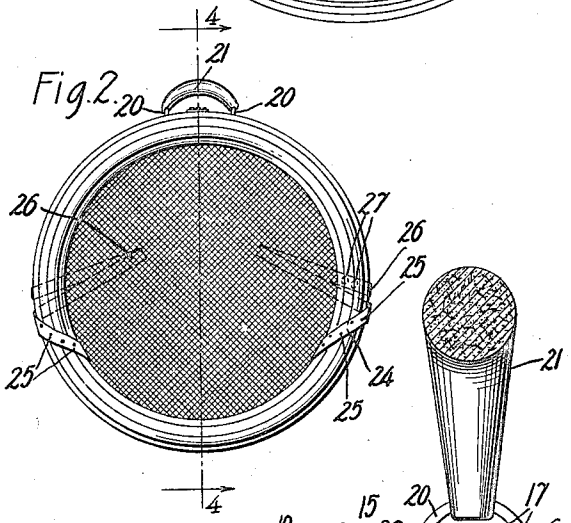


Fig. 3.

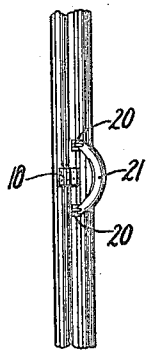
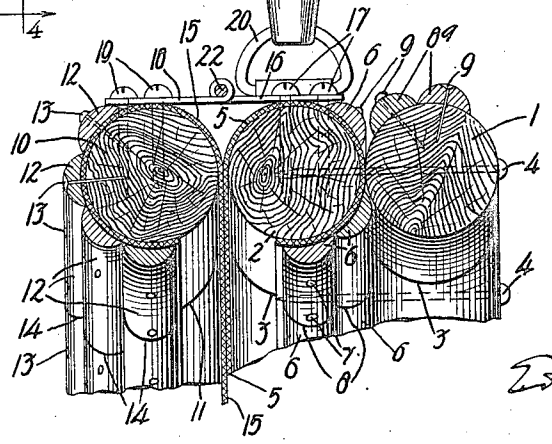


Fig. 4.



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UNITED STATES PATENT OFFICE.

RUTH COLLINS BENDIXEN, OF NEW YORK, N. Y.

PORTABLE FOLDING CHAIR.

Application filed August 30, 1927. Serial No. 216,354.

This invention relates to portable folding chairs.

Its object is to produce a chair of an attractive form in such manner that the invention can be manufactured in large quantities at a very low cost. My new chairs are adapted to be carried conveniently, when folded, for example, in motor cars for use at picnics, the chairs folding compactly and each being provided with a handle so disposed as to keep the back and seat structures dependent from the handle and closed together, when carried. The chairs are shown legless and may be used on the ground, on floors, benches and on yachts, etc.

In the accompanying drawings forming a part hereof and illustrating the invention,

Fig. 1 is a perspective view of a chair embodying my invention, in position of use.

Fig. 2 is a plan view of the chair in folded position, the view being illustrative of both the back and bottom of the chair in its folded position.

Fig. 3 is an edge view of the chair in its folded position.

Fig. 4 is an enlarged sectional detail at line 4—4 of Fig. 2 and illustrates constructional features of both the seat and back of the chair.

In the drawings, the illustrated chair seat includes a pair of bent wood rings 1 and 2. These rings are preferably of the same cross sectional dimensions and of the same interior and exterior diameters. Their meeting ends are shown opposed at 3 and in the seat they are superposed one upon another and held together by screws or other fasteners 4 spaced apart around the rings at proper intervals. These fasteners serve not only to hold the two seat forming rings 1 and 2 in superposed relations, but also to prevent the meeting ends of the rings from becoming displaced. The fasteners 4 serve to some extent in securing the chair bottom 5, which is preferably of flexible material, in place on the inward or upward surface of the ring 2. In the construction shown, the ring 1 is the base ring of the chair seat resting on the floor, ground or other support when the chair is in use and then holding the chair bottom 5 above the floor or ground. The bottom 5 is stretched tightly on the upper or inward surface of the ring 2 partially encircling it and being held in place in part by the bent wood finishing strips 6 applied to under side portions of the margin of the bottom. These strips are fastened in place at intervals by suitable fasteners 7 driver through the strip 6, the bent margin of the bottom 5 and into the ring 2. The meeting ends of the strips 6 are indicated by 8 and the fasteners 7 that hold the strips 6 in place against the curved margin of the chair bottom also serve to prevent the meeting ends of the strips 6 from becoming displaced. The chair bottom 5 may be made of any suitable material fastened to the upper or inward surface of the ring 2, said surface being the upper surface when the chair is in use and the inward surface of the chair seat when the seat is in folded position. The bent wood finishing strips 8^a are preferably applied to the outer periphery of the base ring 1, for neatness of construction and are held in place by fasteners 9.

The chair seat, comprised of a plurality of superposed bent wood rings and a chair bottom, the rings being screwed or nailed together, forms an economic structure as well as one of graceful contour.

The chair back includes a single bent wood ring 10 of the same dimensions as the chair seat rings 1 and 2. These three rings 1, 2 and 10 may be rapidly and economically shaped and although they are shown of the same dimensions, which may be varied, yet for standardization of manufacturing operations, it is economical to make them as shown. The meeting ends of the chair back ring 10 are indicated by 11. Bent wood finishing strips 12 are applied to the outer periphery and also to the interior circumferential portion of the ring 10 and are held thereto by fasteners 13 driven through the strips into the ring, a flexible chair back 15 being stretched on the inward or front surface of the chair back ring 10 and being clamped thereon by strips 12 and fasteners 13. The margin of the chair back 15 corresponds to the margin of the chair bottom, both margins being bent over the bottom supporting ring. The face of the chair back is forward when the chair is in use and inward when the chair is folded, the front face of the chair back and the upper face of the chair bottom being then approximately contactible and spaced apart only by the foldable straps hereinafter mentioned.

The chair bottom supporting ring 2 in the three ring structure shown and described, is midway between the base ring 1 and the back ring 10. One leaf 16 of a hinge is secured by fasteners 17 to the upper peripheral

portion of the intermediate bottom supporting ring 2, the fasteners 17 also passing through the bent margin of the bottom and helping to hold it strongly in position of use. The other leaf 18 of the hinge is secured to the back ring 12 at its upper peripheral portion by fasteners 19 that pass downwardly through the bent margin of the chair back into the bent body of the ring and assist in holding the chair back strongly to the chair back supporting ring 10. The hinged leaf 16 fastened to the intermediate ring 2 is provided with a pair of spaced apart, upstanding bails 20 to which the ends of a looped handle 21 are secured. Thus, when the chair is in folded position and is carried by the handle, the chair back structure and the seat forming structure are conveniently carried by the handle 21 rising from the mid section of the entire structure, and as the chair seat structure and back structure are then dependent, the chair back and seat are readily carried in their folded position, which is also a position convenient for storage and transportation, when the chairs are to be crated or otherwise packed in large quantities. The pintle 22 of the hinge is opposed to the meeting line of the opposable surfaces of the chair seat and back.

A pair of inwardly foldable, flexible straps 23 are used to limit the backward tilt of the unfolded chair, when it is to be used, there being one strap at one side and another strap at the other side of the collapsible seat and back. Each portion 24 of each strap is bent over the framework of the seat and back and secured to the seat or to the back, as the case may be, by fasteners 25. The straps are inwardly foldable at 26 between the folded seat and back as shown in Fig. 2. Thus when the chair is in folded position, the portions of the straps 23, between their ends, lie between the chair bottom and chair back and are out of the way while being carried as well as in storage or transportation.

The straps are slightly yieldable in the lengthwise direction so that when the chair is in use, the slight give in the straps makes the chair back more comfortable.

What I claim is:

1. As a new article of manufacture, a portable folding chair including a seat structure having a plurality of superposed, bent wood, frame-forming rings round in cross-section; a flexible seat, the margin of which is turned over the outer and under surfaces of the upper ring; the under ring having its upper surface in contact with the seat margin and secured in place by fasteners passing through the under ring and the intermediate seat margin and the upper ring, thereby clamping the two seat rings and the intermediate seat margin together; the under ring forming a chair base spacing the chair bottom above the superposed rings; a bent wood, chair back frame-forming ring, round in cross-section, provided with a flexible back at its front side, the margin of the flexible back being turned over the outer and back surfaces of the chair back frame-forming ring and secured thereto; a hinge having one leaf against the outer edge surface of the seat margin, said leaf being clamped against such margin and anchored to the ring carrying the flexible bottom; and the other leaf being clamped against the back outer margin and anchored to the chair back frame-forming ring; the pintle of the hinge being located to permit the bottom and back to be folded flatwise one against the other.

2. As a new article of manufacture, a portable folding chair including a seat structure having a plurality of superposed, bent wood, frame-forming rings round in cross-section; a flexible seat, the margin of which is turned over the outer and under surfaces of the upper ring; the under ring having its upper surface in contact with the seat margin and secured in place by fasteners passing through the under ring and the intermediate seat margin and the upper ring thereby clamping the two seat rings and the intermediate seat margin together; the under ring forming a chair base spacing the chair bottom above the superposed rings; a bent wood, chair back frame-forming ring, round in cross section, provided with a flexible back at its front side, the margin of the flexible back being turned over the outer and back surfaces of the chair back frame-forming ring and secured thereto; a hinge having one leaf against the outer edge surface of the seat margin, said leaf being clamped against such margin and anchored to the ring carrying the flexible bottom; and the other leaf being clamped against the back outer margin and anchored to the chair back frame-forming ring; the pintle of the hinge being located to permit the bottom and back to be folded flatwise one against the other; the seat and back structures connected by lengthwise elastic side straps foldable between the seat and back structures.

3. As a new article of manufacture, a portable folding chair including a seat structure having a plurality of superposed, bent wood, frame-forming rings round in cross-section; a flexible seat, the margin of which is turned over the outer and under surfaces of the upper ring; the under ring having its upper surface in contact with the seat margin and secured in place by fasteners passing through the under ring and the intermediate seat margin, and the upper ring, thereby clamping the two seat rings and the intermediate seat margin together; the under ring forming a chair base spacing the chair bottom above the superposed rings; a bent wood, chair back frame-forming ring, round in cross-section, provided with a flexible back at its front

side, the margin of the flexible back being turned over the outer and back surfaces of the chair back frame-forming ring and secured thereto; a hinge having one leaf against the outer edge surface of the seat margin, said leaf being clamped against such margin and anchored to the ring carrying the flexible bottom; and the other leaf being clamped against the back outer margin and anchored to the chair back frame-forming ring; the pintle of the hinge being located to permit the bottom and back to be folded flatwise one against the other; the hinge leaf anchored to the bottom carrying ring being provided with a handle whereby when the chair is carried vertically by the handle, the bottom and back structures gravitationally remain folded.

4. As a new article of manufacture, a portable folding chair including a seat structure having a plurality of superposed, bent wood, frame-forming rings round in cross-section; a flexible seat, the margin of which is turned over the outer and under surfaces of the upper ring; the under ring having its upper surface in contact with the seat margin and secured in place by fasteners passing through the under ring and the intermediate seat margin and the upper ring, thereby clamping the two seat rings and the intermediate seat margin together; the under ring forming a chair base spacing the chair bottom above the superposed rings; a bent wood, chair back frame-forming ring, round in cross-section, provided with a flexible back at its front side, the margin of the flexible back being turned over the outer and back surfaces of the chair back frame-forming ring and secured thereto; a hinge having one leaf against the outer edge surface of the seat margin, said leaf being clamped against such margin and anchored to the ring carrying the flexible bottom; and the other leaf being clamped against the back outer margin and anchored to the chair back frame-forming ring; the pintle of the hinge being located to permit the bottom and back to be folded flatwise one against the other; the turned margins of the flexible bottom and back being each clamped to its contacting ring by an annular finishing strip by fasteners passing through the strip and margin into the ring.

Signed at New York city, in the county of New York and State of New York, this 22d day of August A. D. 1927.

RUTH COLLINS BENDIXEN.