Nov. 27, 1923. 1,475,512

N. A. RICE ET AL

COLLAPSIBLE OR FOLDABLE SEAT

Filed July 29, 1922

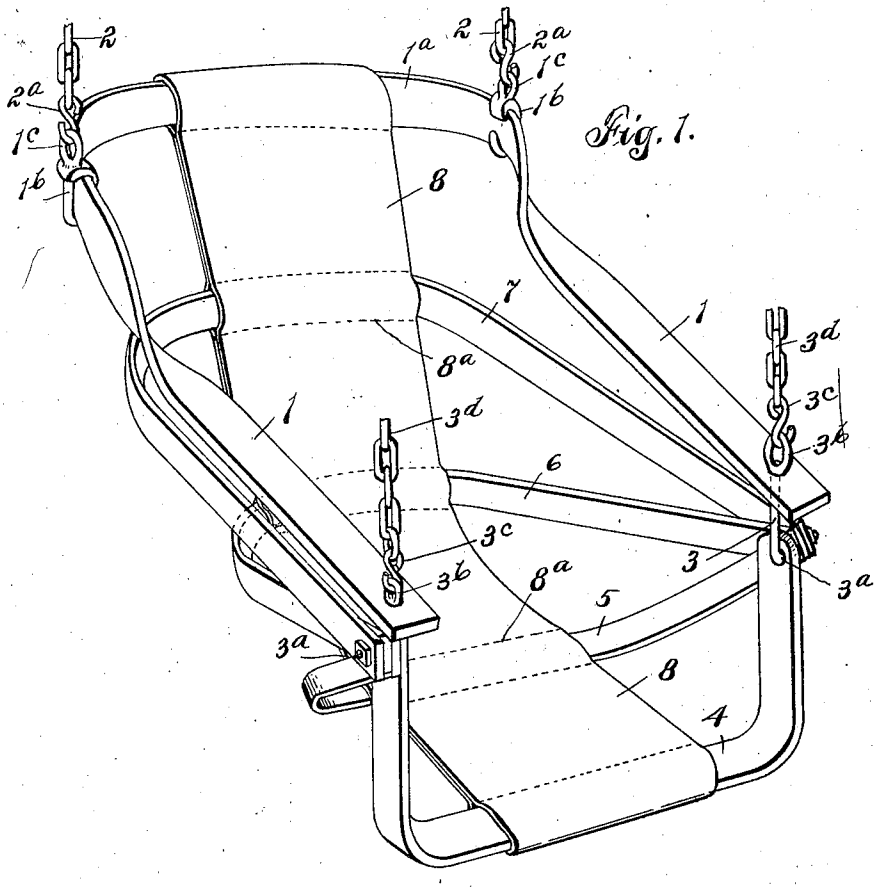


Fig. 1.

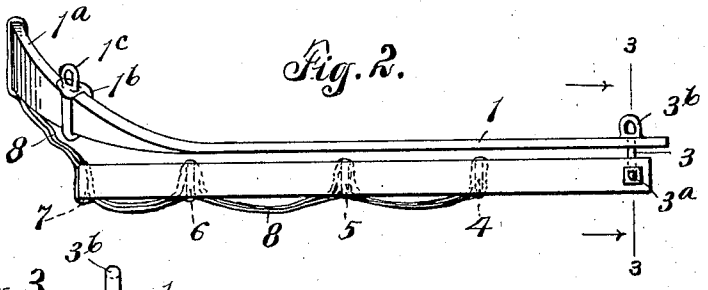


Fig. 2.

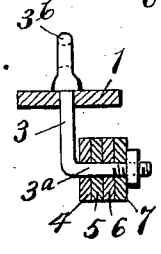


Fig. 3.

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UNITED STATES PATENT OFFICE.

NOBLE A. RICE, OF LODI, OHIO; GUSTAVUS W. THOMPSON, OF SYRACUSE, NEW YORK, AND GROVER C. RICE AND JOHN E. RICE, OF LODI, OHIO.

COLLAPSIBLE OR FOLDABLE SEAT.

Application filed July 29, 1922. Serial No. 578,322.

To all whom it may concern:

Be it known that we, NOBLE A. RICE, GUSTAVUS W. THOMPSON, GROVER C. RICE, and JOHN E. RICE, citizens of the United States, the said NOBLE A., GROVER C., and and JOHN E. RICE residing at Lodi, in the county of Medina and State of Ohio, the said GUSTAVUS W. THOMPSON residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Collapsible or Foldable Seats, of which the following is a specification.

Our invention relates to improvements in collapsible or foldable seats, the present embodiment of the invention relating more particularly to that class or type commonly known as "suspensory or pendant" seats adapted to be mounted or suspended in any suitable and convenient manner and capable of a relatively wide range of use and application.

The primary object of the invention is to provide a generally improved collapsible or foldable seat of the class or type indicated, which will be exceedingly simple in construction, cheap of manufacture, and efficient in use.

A further and very important object is the provision of a light weight chair of this class of general open formation which will not only be comfortable to the user or occupant but possessed of sufficient strength and resiliency to meet the varying exigencies of actual service.

A still further object is the provision of a light weight seat which may be readily folded or collapsed into a substantially horizontal plane so as to occupy but a very small space in transportation or storage.

There are other features of the invention residing in elemental combinations and particular construction of parts, all as will hereinafter more fully appear.

With the above mentioned and other ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in one of its embodiments in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification, Figure 1 is a perspective view of the improved seat in its normal or opened position in use as a pendant or suspensory seat.

Fig. 2, a side elevation or edge view of the same when folded or collapsed and detached from the suspended or suspensory members therefor.

Fig. 3, an enlarged cross sectional view of the pivoted or hinged connection taken on line 3—3 of Fig. 2.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The improved foldable or collapsible seat comprises a plurality of seat and back forming bows pivotally connected to each other and arranged to be nested within each other and folded and provided with flexible means for holding such bows in a relatively fixed position when opened or set up and for permitting such bows to be folded into a substantially horizontal plane when folded. The improved collapsible seat made up of the collapsible bow and bow spacing members preferably comprises main and supplemental bows of general U-shape of graduated lengths and adapted to form the bottom and back portions of the seat as hereinafter referred to. The main U-shaped bow is bent to form a suspensory seat frame made up of the horizontally extending side arms 1, and the vertically extending loop shaped back 1^a.

As a convenient means of suspending or mounting the collapsible seat the transverse intermediate or loop portion 1^a of the main bow forming the suspensory frame is preferably provided with clip members 1^b, provided with suitable loop eyes 1^c, the latter being adapted to detachably receive and contain suitable hooks 2^a, of a pair of pendant or suspensory members 2, of any suitable and convenient material and mounted in any suitable and convenient manner, as for example, the pendant chains 2, as shown. The front ends of the side arms 1 may be provided with attaching bolts 3, for attaching and pivotally connecting the supplemental bows, hereinafter referred to, said bolts extending downwardly and being bent at one side to form pivot portions 3^a, and being provided with loop eyes 3^b, adapted to receive suitable hooks 3^c, in a pair of flexible pendant or suspending members 3^d.

The seat and back forming supplemental

bows are also of substantially U-shape and are preferably graduated in length from front to rear as shown and comprise a front or pendant bow 4, normally extending beneath the side arms 1 of the main bow or suspensory seat frame and intermediate bows 5, 6 and 7, said bows 5, 6 and 7 having their sides successively arranged and disposed adjacent each other at their ends upon the bearing portions or pivots 3^a of the bolts 3, as shown most clearly in Fig. 3 of the drawings. The intermediate bows 5, 6 and 7 conjointly with the front and main suspensory bows 4 and 1 form the bottom and back portions of the seat when set up. As a means of holding the transverse or bow portions of the bows a relatively fixed distance apart when set up and of permitting such bows to be folded or collapsed into a substantially horizontal position, as shown in Fig. 2 of the drawings, the intermediate or cross portions of the bows are provided with a flexible connection consisting, in the present instance, of a back and bottom forming webbing 8, which latter is provided with transverse stitches 8^a, forming pockets for retaining said bows in position.

It will be seen that the front or pendant bow 4 conjointly with the intermediate bows 5 and 6 form the bottom of the seat in connection with the bottom portion of the webbing 8 and that the intermediate bows 6 and 7 conjointly with the back forming portion of the main or frame forming U-shaped bow form the back of the seat.

Having thus described one of the embodiments of our invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, what we claim and desire to secure by Letters Patent is:—

1. In a collapsible seat, a plurality of back and bottom forming bows of graduated length pivotally connected at a common point at their sides and provided with a bottom and back forming webbing at the intermediate portions thereof, the uppermost of said back forming bows being provided with pendant suspensory elements and carrying the other of said bows.

2. A collapsible seat, comprising U-shaped main and supplemental bent bows pivotally connected to each other at their ends, said supplemental bows being adapted to be folded and nested within each other in substantially the same horizontal plane when collapsed, the sides of said main bow being arranged about the sides of said supplemental bows and supporting the latter.

3. In a collapsible seat, a plurality of seat and back forming one-piece bent bows pivotally connected to each other at their sides, said seat forming bows and one of said back forming bows being arranged to be nested within each other in a common plane when folded, and a bottom and back forming flexible medium for holding said bows in proper spaced seat forming relation when set up.

4. A pendant collapsible seat comprising U-shaped one-piece bows having their side arms pivotally connected to each other, one of said bows forming seat-frame side-arms, and suspending the other bows, and a back and bottom forming webbing secured to the intermediate portions of said bows to permit the latter to be folded in a relatively flat position when collapsed and to hold the same in bottom and seat forming position below said seat-frame-forming bow when set up.

5. In a collapsible seat, a U-shaped main bow and supplemental bows of graduated lengths pivotally connected to each other said supplemental bows being adapted to be folded or nested within each other, and bottom and back forming webbing flexibly connected to the looped portions of said bows permitting the latter to be folded into nested position within the planes of said main bow.

6. A foldable or collapsible seat, comprising a main U-shaped suspensory frame forming the back and arm portions when set up, and a plurality of pendant and intermediate U-shaped bows successively disposed adjacent each other at their ends, said pendant and intermediate bows conjointly with said main U-shaped suspensory frame forming the bottom and back of the seat when set up.

7. A collapsible suspensory seat, comprising a U-shaped suspensory bow forming seat frame side arms and a back, a front bow normally depending beneath said suspensory bow and intermediate bows conjointly with said front and suspensory bows forming the bottom and back portions of the seat when set up, said bows being provided with a bottom and back forming connecting web serving to hold the bows a relatively fixed distance apart when open.

8. A foldable or collapsible seat, comprising a main U-shaped suspensory frame adapted to form the upper back and side arm portions when set up, and a plurality of pendant and intermediate U-shaped bows successively disposed adjacent each other at their ends, said pendant bow and some of the intermediate bows forming the bottom of the seat and the other of said intermediate bows conjointly with said main suspensory frame forming the back of the seat when set up.

9. A collapsible or foldable seat, comprising a main U-shaped bow bent to form a suspensory seat frame including side arms and a loop shaped back, pendant pivot members at the front of said side arms of said suspensory frame, a pendant bow pivotally connected to said pendant pivot members, intermediate bows of graduated length

successively disposed between said pendant and main U-shaped bows, and a bow spacing web member connected to the looped portions of said bows and forming the back and seat portions of said seat when the seat is suspended or set up.

10. A collapsible suspensory seat, comprising a U-shaped bow forming a suspensory frame including side arms and a loop shaped back, a front bow normally extending beneath the side arms of said main bow and intermediate bows conjointly with said front and suspensory bows forming the bottom and back portions of the seat when set up, said bows being provided with a bottom and back forming connecting web serving to hold the bows a relatively fixed distance apart when open and permitting said bows to be folded within the planes of the sides of said main bow when folded or collapsed.

In testimony whereof we hereby have affixed our signatures.

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GROVER C. RICE.
JOHN E. RICE.