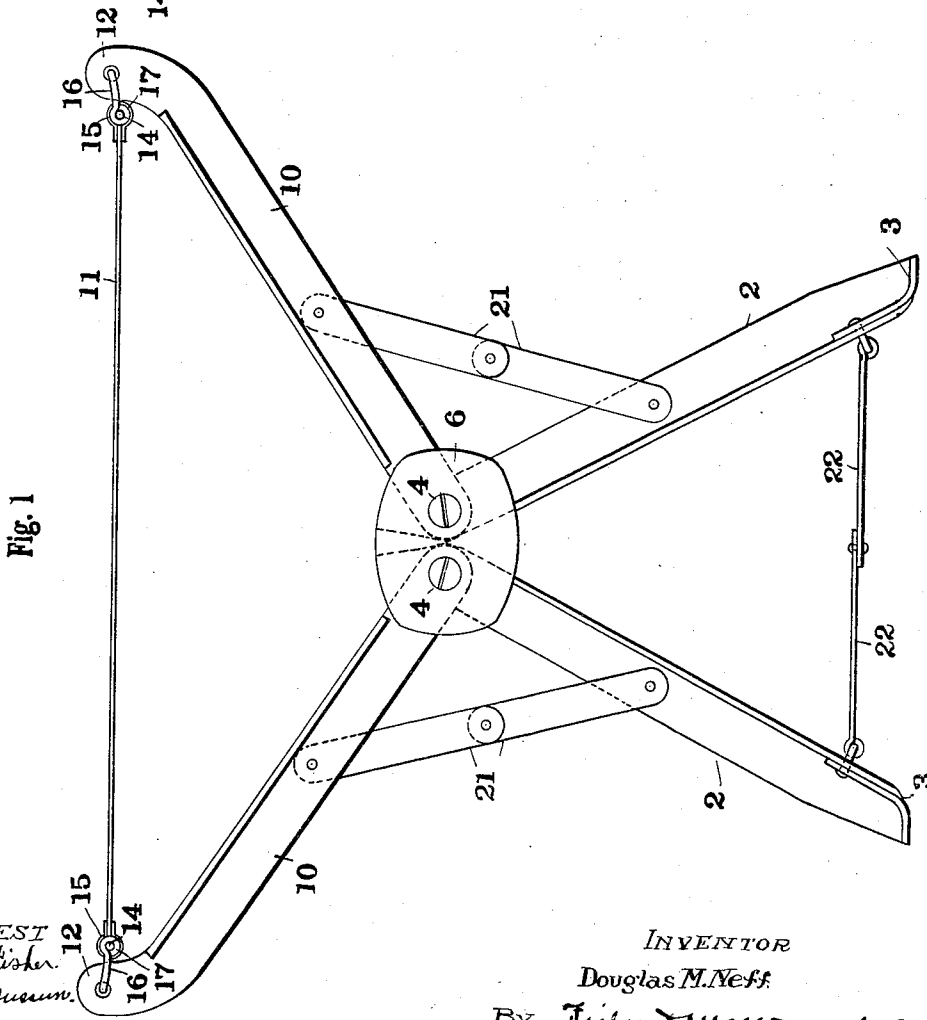
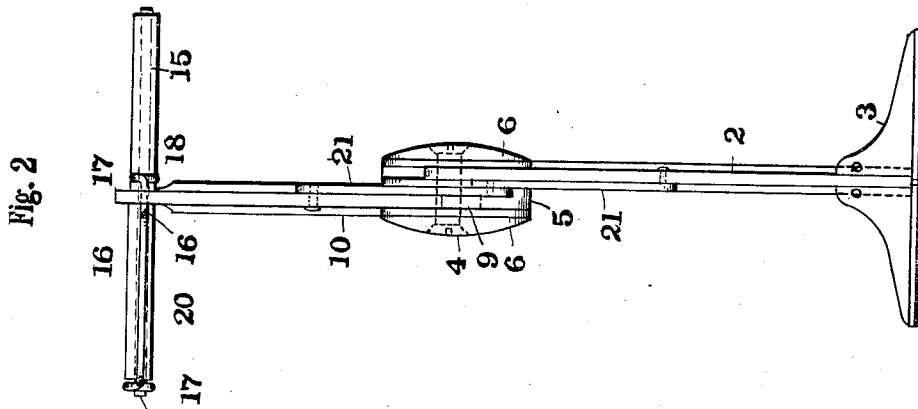


D. M. NEFF.
FOLDING CHAIR.
APPLICATION FILED APR. 24, 1911.

1,017,791.

Patented Feb. 20, 1912.

2 SHEETS—SHEET 1.



1,017,791.

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2 SHEETS—SHEET 2.

Fig. 3

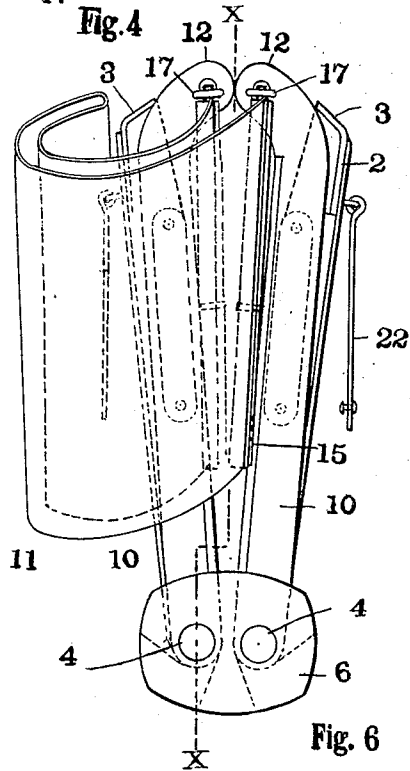
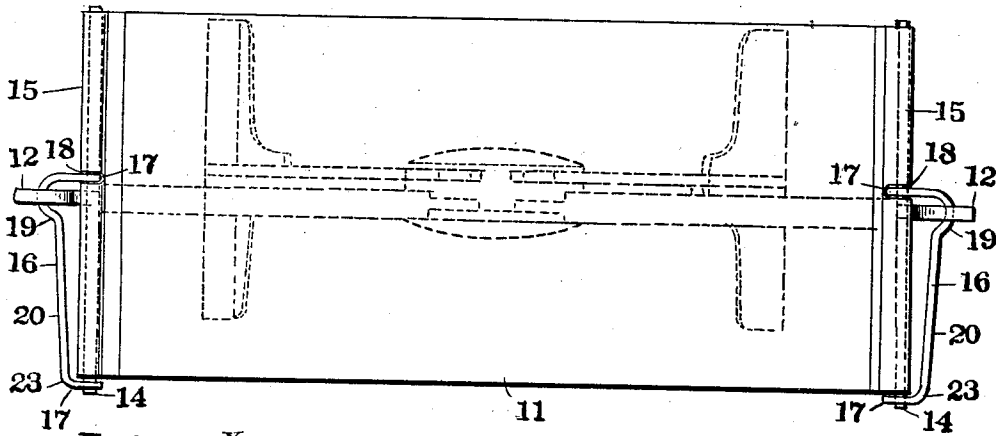


Fig. 6

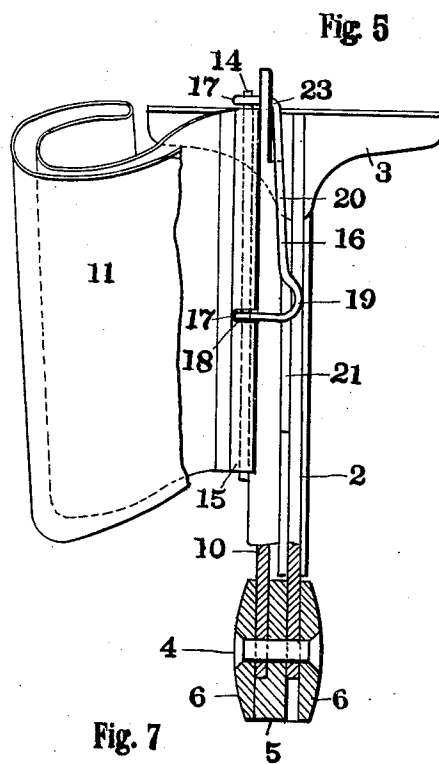
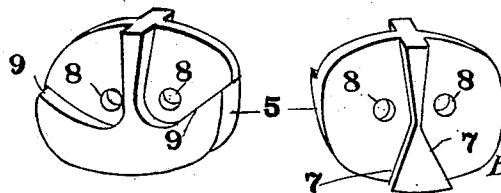


Fig. 7

ATTEST
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UNITED STATES PATENT OFFICE.

DOUGLAS M. NEFF, OF EAST CLEVELAND, OHIO.

FOLDING CHAIR.

1,017,791.

Specification of Letters Patent.

Patented Feb. 20, 1912.

Application filed April 24, 1911. Serial No. 622,884.

To all whom it may concern:

Be it known that I, DOUGLAS M. NEFF, a subject of Canada, residing at East Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Folding Chairs, of which the following is a specification.

My invention relates to improvements in folding chairs, and the improvement comprises an arrangement and construction of parts, substantially as herein shown and described and more particularly pointed out in the claims.

My object is to provide a stool or chair which may be folded so compactly that it can be carried in the average coat pocket, and on the other hand, be of ample size and strength when unfolded to safely support any person of average weight.

A further object is embodied in the slidable loop connection between the seat and its supporting arms, whereby the seat may be suspended parallel with the arms to lie closely against the same and permit wrapping of the seat about the other chair parts when folded, and also whereby unfolding movements of the arms will automatically cause the seat to assume a stretched position on a horizontal plane for seating purposes.

Other objects are also invested in other details of construction as hereinafter more particularly described.

In the accompanying drawings, Figure 1 is a side view of my improved chair unfolded for use, and Fig. 2 is an elevation thereof projected at right angles. Fig. 3 is a plan view of Fig. 1. Fig. 4 is a view of the chair folded with the seat partly wrapped or ready to wrap around the folded chair parts, and Fig. 5 is a sectional view on line *x-x*, Fig. 4. Figs. 6 and 7 are perspective views of opposite sides of the middle uniting plate for the arms and legs of the chair.

In detail, the chair comprises a single pair of leg members 2 made of angle iron having sufficient rigidity and strength to support several hundred pounds weight and of a length of about ten inches over all. Each leg 2 has a cross foot 3 of metal suitably secured thereon at its lower end, and the upper end is rotatably secured by a bolt, screw, or rivet 4 within or upon a metal head comprising a middle plate 5 and two side plates 6 of the same form and outline. Middle plate 5 is particularly constructed on

one of its faces with downwardly-inclined stop or rest shoulders 7 for legs 2, and these shoulders are formed midway between the bolt or rivet openings 8, leaving the legs free to swing upwardly from a spreading position of rest (seen in Fig. 1) to a folded contacting position (seen in Fig. 4). However, the opposite face of plate 5 is recessed and shouldered differently, having upwardly inclined shoulders 9 to limit the radial sweep of a pair of arms 10 which are also rotatably secured by rivets 4 on plate 5, said arms when unfolded or down being adapted to rest on shoulders 9 in a spreading position. The relative inclined rest positions of legs 2 and arms 10 are say approximately thirty and sixty degrees, respectively, viewed in respect to a vertical line. In other words, arms 10 have a greater spread laterally than legs 2 to suspend a reasonably long seat 11 of canvas or other fabric between their curved extremities 12. This is accomplished by wrapping the opposite ends of the fabric seat around a wire 14 and clenching it in place by a metal ferrule 15, and by the use of wire yokes 16 which have eye extremities 17 loosely engaged with wires 14—ferrules 15 having a notch 18 approximately centrally between their ends, and wires 14 extending beyond one end of the ferrules to permit eye-extremities 17 to sleeve upon the wires. Yokes 16 are also particularly constructed with semicircular bent portions 19 approximately opposite or on a central longitudinal line of seat 11, and the main stem 20 of the yokes are also inclined relatively to ferrules 15,—being nearest thereto at their outer ends. The advantage of this arrangement is apparent when unfolding of the chair occurs, and as hereinafter described. A set of links 21 pivotally united in pairs between the respective legs 2 and arms 10 assist in bracing the structure when unfolded and in use, and a pair of separable cross-connecting links 22 serve a like purpose between legs 2.

Now assuming that the chair is unfolded as shown in Fig. 1 and it is desired to fold the same into a small compass, all that is needed in the way of preliminary preparation is to disconnect or separate links 22, and then fold legs 2 and arms 10 until opposite legs and arms meet as shown in Fig. 4—the links 21 doubling-up like a jack-knife. In this operation, seat 11 is also doubled-up, but in so doing, it may be

pushed or forced to one side, yokes 16 permitting this to be done until curved end 23 of each yoke is reached. Then as arms 10 approach or come to a vertical position, the yokes and their connected ferrules may assume a hanging position on vertical lines—curved ends 23 permitting this angular change of relations. As thus suspended, seat 11 then stands in a dropped position to one side of the folded parts, and may be wrapped around the same to make a compact package of relatively small dimensions. Now in opening or unfolding operations, the seat is first unwrapped, and arms 10 and legs 2 then separated or unfolded by grasping the outer ends by the hands. In so doing pull is brought to bear upon seat 11 before complete unfolding of arms 10 is obtained, and as this pull is centered at rounded ends 23 of yokes 16 it follows that the yokes are drawn outwardly through the perforated ends of arms 10 until the seat is centrally aligned with said arms and shifted to a horizontal plane with semi-circular portions 19 engaged as shown in Fig. 3. Inclined stem 20 facilitates this operation as the yoke slides through extremities 12. Braces 21 also unfold automatically, and when bottom braces 22 are linked together, the chair is ready for use.

What I claim is:

1. In a folding stool or chair, a set of folding arms and a folding seat having slidable yoked connections therewith adapting the seat to be shifted to different angular planes when the chair is folded and unfolded.

2. In a folding stool or chair, a set of folding arms, a folding seat, yokes for the seat having slidable connection with said arms, and legs adapted to be folded substantially parallel with said arms.

3. In a folding stool or chair, folding arms, a flexible seat, and means to rotatably connect the seat in slidable relation with said arms from its transverse center to one edge, whereby the seat may be shifted transversely and also turned without detachment to wrap around the arms when folded.

4. In a folding stool or chair, folding arms, a seat, yokes having bent extremities connected with said seat and slidably engaged with said arms.

5. In a folding stool or chair, folding arms, a seat, and yokes connecting said seat and arms having a main stem inclined relatively to the median line of the seat between said arms.

6. In a folding stool or chair, folding arms having perforated ends, a seat, cross rods secured at the ends of said seat, yokes having eye-extremities engaged with said cross rods and provided with bent portions adapted to slidably engage said perforated arm ends.

7. In a folding stool or chair, folding arms having lateral projecting extremities, and a folding seat having end yokes slidably engaged with said extremities to permit the seat to be suspended therefrom either centrally between its longitudinal side edges or at one edge thereof.

8. In a folding stool or chair, folding arms, a seat of pliable material and cross rods wrapped within the opposite ends thereof and ferrules secured about said ends and rods, and yokes having eyes engaged with said rods and slidably connected with said arms.

9. In a folding stool or chair, a head having a pair of pivot members and separate sets of legs and arms rotatably supported thereon, and a flexible seat having an elongated loop extending transversely at either end and slidably engaged with the extremities of said arms and adapting the seat to be rotated to a horizontal plane when the chair is unfolded and to a vertical plane substantially parallel with said arms and legs when folded.

10. In a folding stool or chair, a pair of legs, a pair of arms, a supporting plate having pivot members and separate stops for said legs and arms, cross feet on said legs, and a flexible seat having end loops extending approximately from the transverse center of the seat to one edge and slidably engaged with said arms adapting the seat to be turned to different planes in folding and unfolding operations.

11. In a folding stool or chair, a pair of legs having T-shaped ends, a pair of arms having curved extremities and openings in said extremities, a head to rotatably support said legs and arms in folding relation having shouldered portions on opposite sides to provide stop rests for said arms and legs when unfolded, and a foldable seat stretched having yoke members slidably mounted within the openings in said arms.

In testimony whereof I affix my signature in presence of two witnesses.

DOUGLAS M. NEFF.

Witnesses:

R. B. MOSER,

E. M. FISHER.