

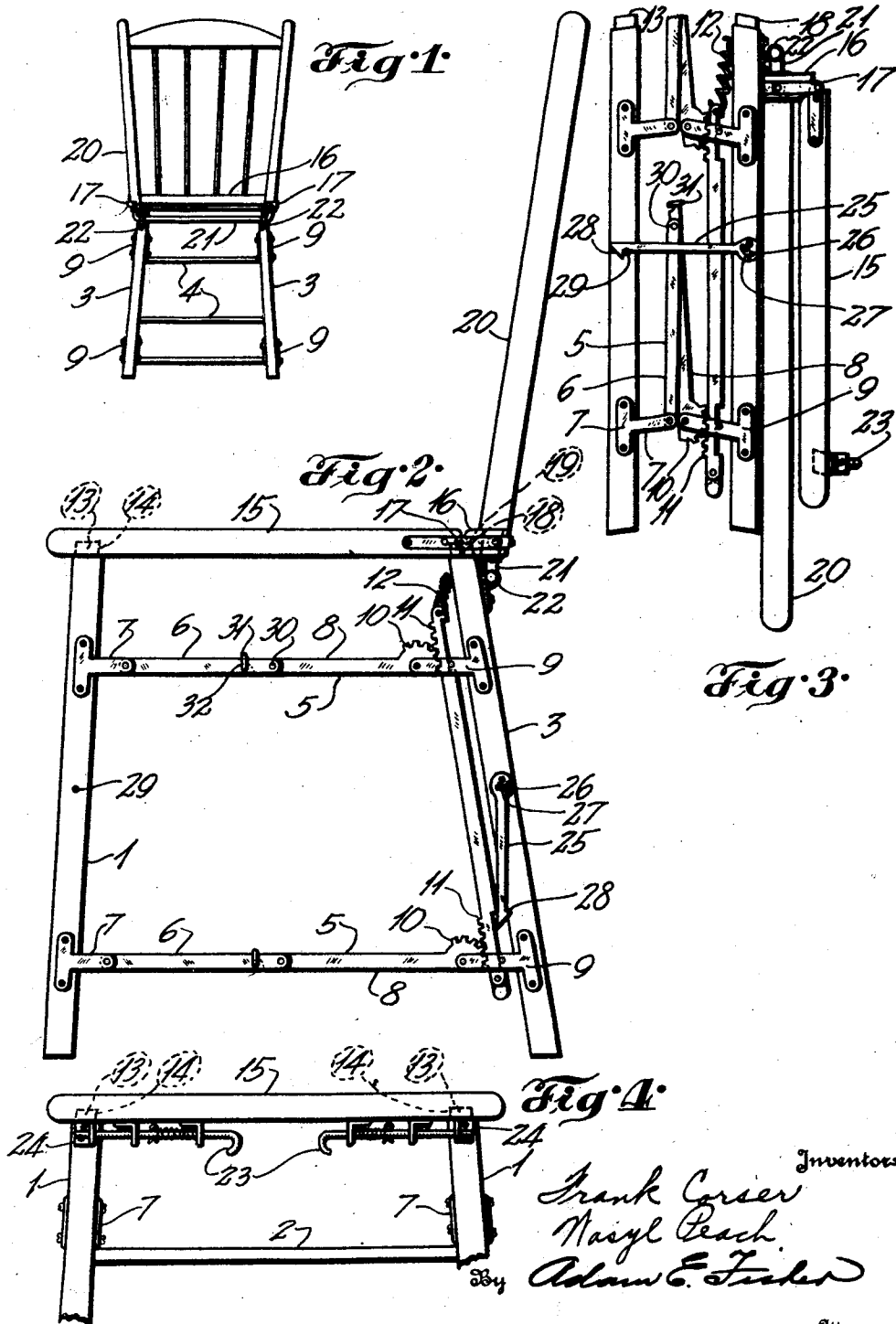
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FOLDABLE CHAIR

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FOLDABLE CHAIR.

Application filed October 14, 1927. Serial No. 226,066.

This invention relates to foldable chairs and has for one object to provide a seat or chair which can be folded up into a compact space or can be promptly changed from a folded condition to an open one and in which latter position it constitutes a firm and reliable support.

Another object is to provide a back hingedly mounted on the back legs of the chair, and a seat hingedly mounted on the back and adapted to be supported by the legs of the chair in such a manner as to rigidly lock the back when in its upright position on the chair.

Another object is to provide foldable braces for the chair, said braces having means for automatically extending the same when the chair is in its open position, the said braces being normally held in said extended position by said means.

With the above and other objects in view, our invention consists in the combination and arrangement of parts hereinafter described and claimed and more particularly illustrated in its preferred embodiment in the accompanying drawings, wherein

Figure 1 is a rear elevation of the chair in its open position.

Figure 2 is an enlarged side elevation of the chair in its open position.

Figure 3 is a view similar to Figure 2, but showing the chair in its folded position, and

Figure 4 is a fragmentary front view of the chair, showing the lock bolts.

Referring now more particularly to the drawings, we provide front leg units comprising front leg elements 1 connected and braced by rungs 2 and rear leg units comprising rear leg elements 3 connected and braced by rungs 4; each front leg element 1 is connected to and braced from its corresponding rear leg element 3 by means of spaced foldable braces 5 having its front member 6 pivoted to the front leg brackets 7 and its rear member 8 pivoted to the rear leg brackets 9. The rear end of said rear member 8 is provided with a segmental gear 10 meshing with a spring set rack bar 11 slidably mounted in the said rear leg brackets 9 for movement parallel to the said rear leg element 3, the said rack bar 11 having its upper end fastened to one end of a spring 12, the other end of said spring being fastened to one end of a spring 12, the other end of said spring being fastened to the said rear leg element 3. The said front leg elements 1 each terminates at its upper end in a tenon 13 adapted to engage a mortise 14 provided ad-

jacent the front edge of the foldable seat 15, of which the rear portion 16 is mounted on the back 20, and the said seat is foldable, as by means of hinges 17, on an axis coinciding with the longitudinal axis of said rear leg elements 3, each of which also terminates in a tenon 18 adapted to be positioned between the foldable members of the seat 15 as by engaging corresponding recesses 19 provided in the adjacent edges of said foldable members of said seat, the said recesses, of course, serving as mortises for this purpose when the chair is in its open position as shown in Figure 2. A dependent hinge bar 21 is journaled in bearings 22 mounted on the back face of the rear leg element 3. Spring set latch bolts 23 are slidably mounted on the under side of the seat 15 adjacent to the front edge thereof, and adapted to engage latches 24 mounted on the front face of the front leg elements 1. A locking element 25 is pivoted at one end medially of one of the rear leg elements 3 and is provided with an arcuate slot 26 engaging a pin 27 positioned on the said rear leg element, and the other end of said locking element 25 is formed with a hook element 28 adapted to engage a pin 29 mounted on the corresponding front leg element 1. The front member 6 and the rear member 8 of the foldable braces 5 are pivotally connected as at 30, the said rear member 8 having a stop element 31 adapted to engage a corresponding slot 32 in the front member 6, whereby the said braces 5 are foldable upwardly only.

In use, the chair being in its folded position as shown in Figure 3, the locking element 25 is unhooked from the pin 29, thus permitting the front leg elements 1 to be moved outwardly from the rear leg elements 3, so as to take their open position, while the spring 12 urges the rack bar 11 upwardly through the brackets 9; the said rack bar engaging the gears 10 on the rear members 8 of the foldable braces 5 causes the same to pivot about the said brackets 9 downwardly to a horizontal position whereupon the stops 31 of said rear member 8 engaging the slots 32 in the front member 6 prevent further downward movement of said rear members 8 and at the same time lock the said braces 5 so as to firmly position the said front leg elements 1 relatively to the rear leg elements 3 in their extended or open position. The back 20 and the seat 15 with it is now rotated about the bearings 22 until the recesses 19 in the foldable member 16 of the seat engage the tenons 18 of the rear

leg elements 3. The other foldable member of the seat 15 is then pivoted about the hinges 17 until the said seat rests upon the leg elements, as shown in Figure 2, the mortises 14 engaging the tenons 13 of the front leg elements 1 and the recesses 19 of the seat engaging the said tenons 18 of the rear leg elements 3 so as to firmly position the same between the adjacent edges of foldable members of the said seat 15 whereby the back 20 is prevented from rotation about the bearings 22 by reason of the fact that any such movement will be resisted by the engagement of the said seat 15 with the said tenons 18. As a further precaution, the latch bolts 23 are caused to engage the latches 24, thus positively preventing any upwardly movement of the seat 15 until said latch bolts are withdrawn from said latches, whereupon the said set 15 may be lifted up and rotated about the hinges 17, thus permitting the back 20 and the seat with it to be rotated about the bearings 22, while at the same time the braces 5 may be folded by the operator against the tension of the spring 12, thus bringing the front leg elements 1 towards the rear leg elements 3 until the hook element 28 may engage the pin 29, thus locking the chair in its folded position, as shown in Figure 3.

While we have herein described a certain specific method of construction and assembling the elements of our invention, it is understood same may be varied in minor details, not departing from the spirit of our invention as defined in the appended claims.

We claim:

1. A foldable chair having front and rear leg units, a foldable brace connecting said units, a gear provided at one end of said brace, and a spring set rack bar slidably mounted on the rear leg unit and engaging said gear.

2. A foldable chair comprising front and rear leg units, the rear leg unit including leg elements each having a tenon on its upper end, a back hingedly mounted on the rear face of said rear leg unit, and a seat mounted on said back and extending rearwardly over said rear leg unit, said seat including front and rear members foldably connected together on an axis coinciding with the longitudinal axis of the rear leg elements, the foldable members of said seat having corresponding recesses adapted to engage the tenons of the rear leg elements thereinbetween.

3. A foldable chair comprising a rear leg unit, a back hinged to said rear leg unit, and a seat mounted on said back, said seat including front and rear members foldably connected together, the foldable members of said

seat being adapted normally to engage the upper end of the legs of said rear leg unit thereinbetween.

4. A foldable chair comprising a rear leg unit, a back hinged to said rear leg unit below the upper end thereof, and a seat mounted on said back and adapted to rest upon said rear leg unit, said seat including front and rear members foldable along an axis coinciding with the longitudinal axis of said rear leg unit, and tenons provided on the upper end of said rear leg unit adapted to be engaged between the foldable members of said seat.

5. A foldable chair comprising front and rear leg units, a back hinged to the rear leg unit, a foldable seat mounted on said back and adapted to rest upon said leg units, said seat including front and rear members foldable along an axis coinciding with the longitudinal axis of said rear leg unit, spring set foldable braces connecting the front leg unit with the rear leg unit, and locking means mounted on said seat adapted to engage said front leg unit.

6. A foldable chair comprising a front leg unit and a rear leg unit, a back hinged to the rear leg unit, a foldable seat mounted on said back and adapted to rest upon said leg units, said seat including front and rear members foldable along an axis coinciding with the longitudinal axis of said rear leg unit, the foldable members of said seat having corresponding recesses adapted to engage the upper end of said rear leg unit thereinbetween, spring set foldable braces connecting the front leg unit with the rear leg unit, and locking means mounted on said seat adapted to engage said front leg unit.

7. A foldable chair comprising a front leg unit and a rear leg unit, a back hinged to the rear leg unit, a foldable seat mounted on said back and adapted to rest upon said leg units, said seat including front and rear members foldable along an axis coinciding with the longitudinal axis of said rear leg unit, the foldable members of said seat having corresponding recesses adapted to engage the upper end of said rear leg unit thereinbetween, foldable braces connecting the front leg unit with the rear leg unit, a gear mounted on one end of each of said braces, a spring set rack bar slidably mounted on one of said leg units and adapted to engage said gear, and locking means mounted on said seat adapted to engage said front leg unit.

In testimony whereof we affix our signatures.

FRANK CORSER.
WASYL PEACH.