

June 25, 1935.

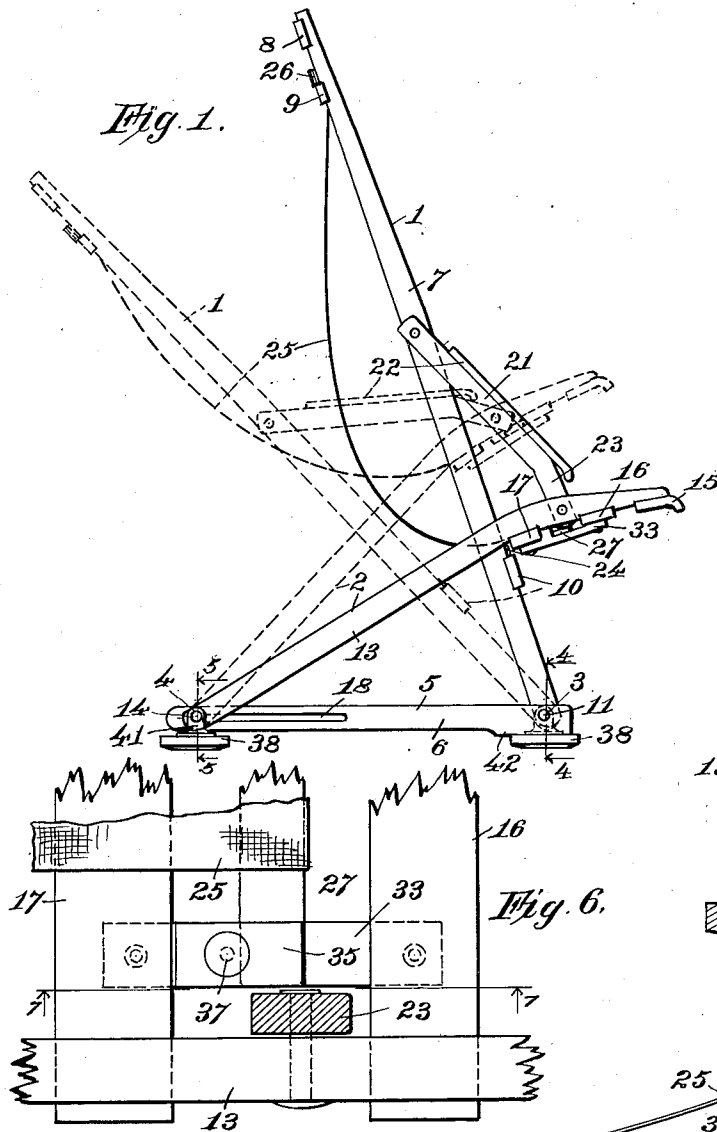
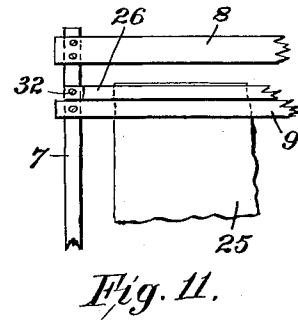
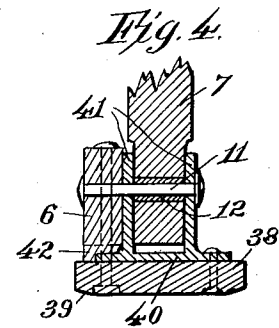
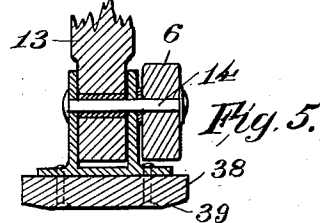
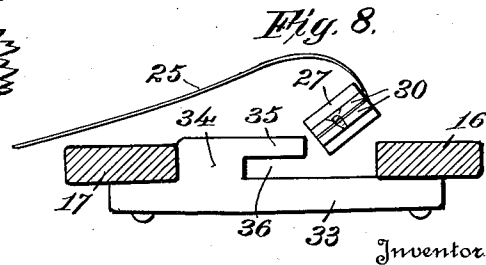
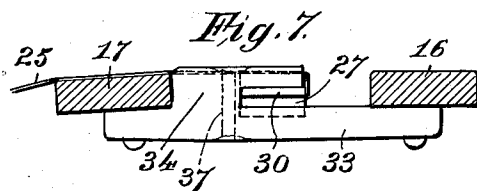
O. J. OLSEN

2,006,277

FOLDING ROCKING CHAIR

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2 Sheets-Sheet 1



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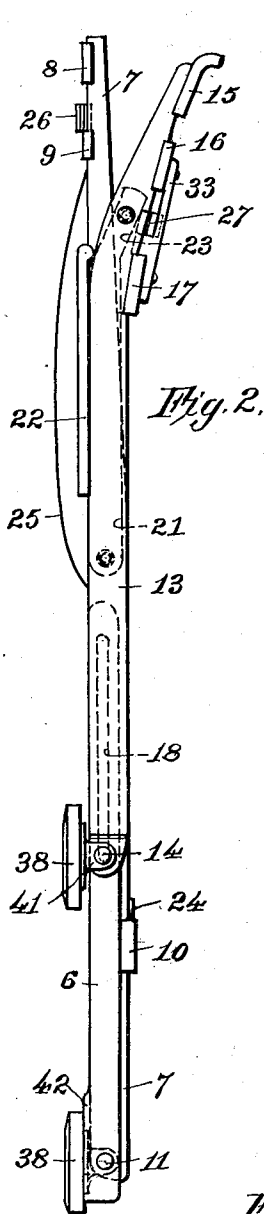
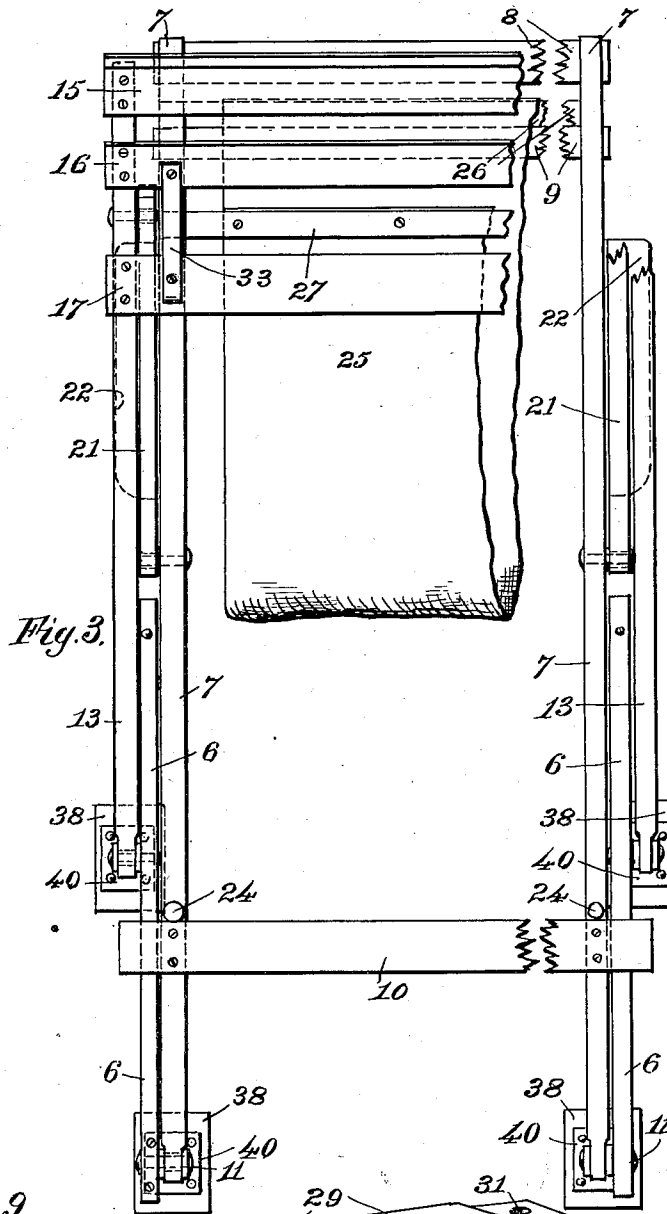
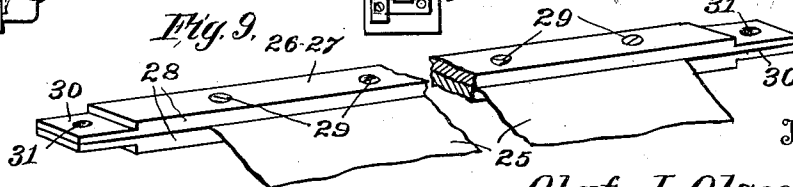
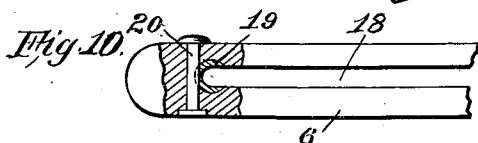
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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FOLDING ROCKING CHAIR

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Application June 24, 1929, Serial No. 373,380

5 Claims. (Cl. 155—56)

My invention relates to folding rocking chairs of the class wherein a back frame and a seat frame are pivotally connected to a suitable base construction, and arranged in intersecting planes; and provided with a strip of flexible material connected to the frame members so as to form a portion of the seat and the major portion of the back of the chair.

An object of my invention is to provide a chair of the character mentioned which may be folded flat to occupy but little space when not in use and which may be readily and quickly extended for use. A further object of my invention is to provide an improved base construction for the chair which will fold parallel with the seat and back frame members. A further object of my invention is to provide a chair of the character mentioned which will not creep, or mar the surface on which it rests, and which will be equally adapted to house, porch or beach use. A further object of my invention is to provide in a chair of the character mentioned, improved means for adjusting the length of the flexible strip to suit the comfort of the user and to compensate for any stretching or shrinking of the material. A further object of my invention is to provide, in a chair of the character mentioned, a construction and arrangement whereby the flexible seat and back member may be readily removed for reversing, cleaning or repairing. A further object of my invention is to provide a chair of the character mentioned which shall be extremely comfortable and which may be readily rocked by the occupant and which shall be noiseless when in use. A further object of my invention is to provide a chair of the class mentioned of such construction and arrangements of parts, that the fingers or hands of the occupant cannot be pinched between the elements of the device while in normal use. Other objects of my invention are to provide a chair of the class mentioned which shall be strong and durable, light in weight and which shall be impossible to tilt over backward when occupied. Other objects will appear hereinafter.

With these objects in view my invention consists generally in a chair comprising a base, a back frame pivotally connected to the forward portion of the base, a seat frame pivotally and slidably connected to the rear portion of the base and a flexible element connected at the lower end to the seat and at the upper end to the back frame adjacent its upper end, the planes of the seat and back frames intersecting, and arm rest links connecting said frames above their

points of intersection. My invention further consists in a chair as mentioned in which the ends of the flexible member are secured to transverse bars which are detachably connected to the seat and back frames whereby the flexible element may be readily removed for reversing, cleaning or repairing. My invention further consists in improved means for holding one of the attaching bars so that the length of the flexible elements may be readily adjusted to suit the occupant of the chair by merely turning the bar to take up or pay out a portion of the strip and then slipping the bar into position. My invention further consists in providing suitable pads or feet to support the ends of the pivoted back and seat frames above the supporting surface, so that the swinging of the frames will not cause the chair to creep or to mar the surface upon which the chair rests, and which will further adapt the chair for use upon the beach.

My invention further consists in a chair as mentioned in which the back and seat frame portions are spaced a sufficient distance apart where their planes intersect to prevent pinching the hands or fingers between them; and in which the connecting links are at such an angle to the frame members that they cannot catch or pinch the fingers with any normal use of the chair. My invention further consists in various details of construction and arrangements of parts, all as will be fully described hereinafter and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1 is a side elevation of a chair embodying my invention in its preferred form, the chair being illustrated in upright position in full lines and in a reclining position in dotted lines,

Fig. 2 is a side elevation of the chair in folded position and illustrated upon an enlarged scale,

Fig. 3 is a front elevation of the folded chair, illustrating one side complete, the other side being partly broken away,

Fig. 4 is a detail section on the line 4—4 of Fig. 1, upon an enlarged scale,

Fig. 5 is a similar view on the line 5—5 of Fig. 1,

Fig. 6 is a detail plan view of a portion of the seat construction, illustrating the means for adjustably securing one end of the flexible member of the chair,

Fig. 7 is a section on the line 7—7 of Fig. 6,

Fig. 8 is a similar view illustrating the flexible strip holding bar in position to be inserted in place;

Fig. 9 is a perspective view of one of the strip holding bars,

Fig. 10 is a detail view of the rear end of one of the base members, and

- 5 Fig. 11 is a fragmentary detail rear elevation of a portion of the back.

Referring now to the drawings 1 indicates generally the back frame and 2 the seat frame which are arranged in intersecting planes and have their
10 lower ends pivotally connected at 3 and 4 respectively to a suitable base construction 5. This base consists principally of a pair of parallel bars 6—6, which extend horizontally from front to back of the chair.

15 The back frame 1 comprises a pair of substantially vertically extending side rails 7, 7, which are connected adjacent their upper ends by a pair of cleats 8 and 9 respectively, and beneath the lowest level of the seat by a cleat 10. The lower
20 ends of the rails 7 are pivotally connected to the forward end of the base bars 6 as by pivot pins 11, which are preferably steel rivets, the rails 7 being provided with brass bushings 12 to eliminate friction and noise.

25 The seat frame comprises a pair of side rails 13, 13, the lower ends of which are pivotally connected to the rear portion of the rail 6, and a plurality of cleats 15, 16 and 17 connecting the upper forward portion of the bars and forming the
30 major portion of the seat. The forward portion of the bars 13 to which the cleats 15, 16 and 17 are connected, are curved slightly downwardly to properly and comfortably position the seat of the chair, and to permit the various side elements
35 to be folded flat. In chairs of the class under consideration, the flexible element is usually secured to a single front bar, or the rigid front portion slants upwardly so that in either instant the forward portion tends to cut into the legs of the
40 user of the chair, causing great discomfort. By having the major portion of the seat formed of the cross cleats and having this portion sloped downwardly at an angle to the general plane of the frame members, greater comfort is effected.
45 The pivot pins 14 are slidably mounted in slots 18 formed in the rear portion of the base members 6 to facilitate folding the device as will appear hereinafter. The rear ends of the slots 18 are provided with brass bushings 19 which are
50 engaged by the pins 14 when the chair is in use; and these bushings are held in place by transverse rivets 20, which also strengthen the bars 6.

The frame is completed by a pair of links 21, 21, the ends of which are pivotally connected to the
55 bars 7 and 13, respectively, of the back and seat frames, and above the intersection of the planes of said frames. Secured to the upper edges of these links are arm rests 22. The forward ends of the links 21 are bent downwardly at an angle
60 to the major portion of the links as indicated at 23, which serve several useful functions. It permits the bars and links of the frame to lie parallel when the device is folded, as will be clear from Fig. 2 of the drawings; it allows for the
65 proper positioning of the pivotal connection between the side rails of the back and seat sections and elevates the arm rests into a proper and comfortable position for the forearm; and it also makes such an angle with the adjacent seat frame
70 rail that the fingers cannot be pinched between the same. It should also be noted that the back frame is pivotally connected to the inner faces of the base bars 6 and links 21 and that the side rails of the seat frame are pivotally connected
75 to the outer faces of these members, by which

construction the rails of the seat and back frames are spaced a considerable distance apart so that the hands cannot be pinched between the same. When the seat is in the lowermost position the rear cleats 17 thereof about the back rail 7 just
5 above the cleat 10. This limits the downward movement of the seat and aids the user in entering or leaving the chair. The rails 7 are provided with cushioning bumpers 24 to cushion the impact of the seat member 17 thereagainst.

10 25 indicates a flexible strip of fabric such as canvas or the like, which constitutes a portion of the seat and the major portion of the back of the chair. The ends of the canvas strip are held in position by transverse bars 26 and 27. These
15 bars are identical and are illustrated in Fig. 9 of the drawings. Each bar comprises a pair of similar strips 28, 28 between which the ends of the fabric strip is clamped by means of screws 29. At their ends the strips are reduced in thick-
20 ness as indicated at 30 and provided with holes 31 to receive screws 32 for attaching the bar 26 to the rails 7 directly above the cleat 9 of the back.

One of the objects of my invention is to provide
25 improved means for adjusting the length of the flexible fabric member 25 to secure the comfort of the occupant. To this end a socket is provided at each side of the seat to removably receive
30 the reduced ends 30 of the bar 27. As shown in Figs. 6, 7 and 8 short bars 33 are secured to the underfaces of the cleats 16 and 17, spanning the space between said cleats and each provided with
35 an upwardly extending portion 34 terminating in a forwardly extending tongue 35, forming a socket 36 to receive the respective end 30 of the bar 27. The flexible fabric may be wound upon or un-
40 wound from the bar 27 to the desired extent and the ends 30 of the bars slipped into the sockets 36 as indicated in Figs. 7 and 8. It is obvious that with this construction an adjustment of the
45 length of the member 25 may be readily made, and that it is impossible for the bar 27 to become dislodged while the seat is in use, as the tension on the member 25 will hold the bar in place. A
rivet 37 as shown in Figs. 6 and 7 strengthens the socket 7.

Suitable supporting blocks are provided which are positioned under the ends of the base bar 6
50 when the chair is extended for use. These pads prevent the ends of the seat and back rails from coming in contact with the floor, thereby preventing creeping of the chair and marring of the floor. They are also advantageous in supporting the
55 chair on a sandy beach. Each pad preferably comprises a rectangular block 38, the edges of the lower face of which are preferably slightly beveled as at 39. Each block is provided with a
60 bracket 40 riveted or otherwise secured thereto and comprising a pair of upwardly extending ears 41 through which extend a pivot pin 11 or 14. At their forward ends the bars 6 are slightly en-
65 larged downwardly as at 42 to engage the upper face of the respective blocks 38 and are riveted thereto, as indicated in Fig. 4. The rear pads are spaced from the bars 6 and are slidable with the pivot pins 14 as they move in the slots 18.

The device may be folded by merely swinging the forward end of the seat outwardly and up-
70 wardly which bring all of the side frame members into parallelism as illustrated in Figs. 2 and 3, so that the device folds perfectly flat with the exception of the slight angular projection of the seat. The adjustability of the length of the fabric strip has been described but it should also
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be noted that the strip may be readily removed for reversing, repairing or cleaning. The lower bar 27 may be readily detached from the socket by merely slipping the same therefrom, and the

5 upper bar may be detached by removing the screws 32. The chair is light in weight, strong, durable and comfortable and may be readily carried from place to place and subjected to normally rough usage without injury. It is also
10 practically impossible to tilt the chair over when in use.

I claim:

1. A chair of the class described comprising a base, a back frame pivotally connected to the
15 forward portion of the base, a seat frame pivotally connected to the rear portion of the base, said seat portion including a plurality of transverse spaced cleats at the forward end of the frame constituting the major portion of the seat
20 of the chair, a flexible element having its upper end secured adjacent the upper end of the back frame, a transverse bar secured to the lower end of said element, bars secured to the underfaces of adjacent seat cleats and spanning the space between them and longitudinally projecting tongues
25 secured to the under edges of said bars and forming therewith open ended sockets to removably receive the end of the transverse bar secured to the flexible element and links connecting the back and seat frames as and for the
30 purpose specified.

2. In a chair of the class described a base comprising a pair of straight parallel bars extending from front to rear, the rear portions of said
35 bars being formed with longitudinally extending slots, a back frame pivotally connected to the forward ends of said base bars to oscillate thereon and a seat frame having pivot pins pivotally and slidably mounted in said slots, said seat
40 frame being adapted to oscillate on said pins, and supporting blocks connected under the front

and rear ends of the base bars respectively, the blocks at the rear ends being pivotally supported with respect to the base bars, as and for the purpose described.

3. A chair as set forth in claim 2 further characterized in that the supporting blocks at the
5 front ends of the base bars are fixed to the forward ends of said bars and the supporting blocks at the rear ends of the base bars are pivotally connected to the lower ends of the seat frame
10 by the pivot pins and are slidable therewith, and links connecting the back and seat frames, substantially as described.

4. A chair of the class described, comprising a base, a back frame and a seat frame pivotally
15 connected to oscillate on the forward and rear portions of the base respectively, and links connecting said back and seat frames, said seat frame comprising a pair of side rails and cleats connecting the forward ends of said rails and con-
20 stituting the major portion of the seat of the chair, a flexible element extending from adjacent the rearmost of said cleats to adjacent the top of the back frame, and the portion of the side
25 rails of the seat frame to which the cleats are connected being bent downwardly from the plane of the rails, as and for the purpose mentioned.

5. A chair of the class described comprising a base, a back frame and a seat frame pivotally
30 connected to the forward and the rear portions of said base respectively, to oscillate thereon, a flexible element secured to the seat and back frames and constituting portions of the seat and back, side links connecting the seat and back
35 frames above the intersection of their planes and constituting arm rests, the forward ends of said links being bent downwardly to avoid acute angles between said links and seat frame, as and for the purpose specified.

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