

No. 736,709.

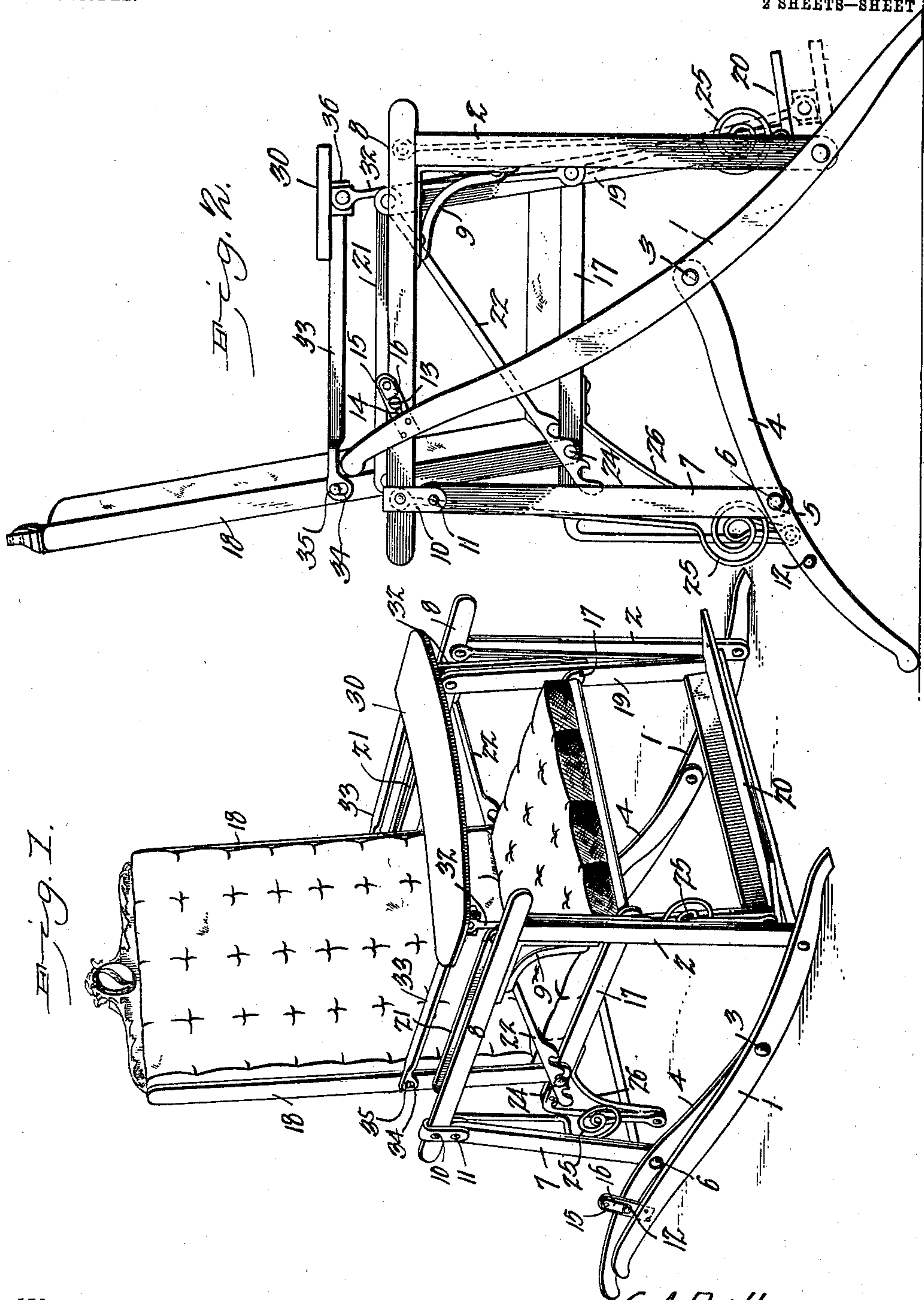
PATENTED AUG. 18, 1903.

G. A. DUTTON.
CHAIR.

APPLICATION FILED SEPT. 4, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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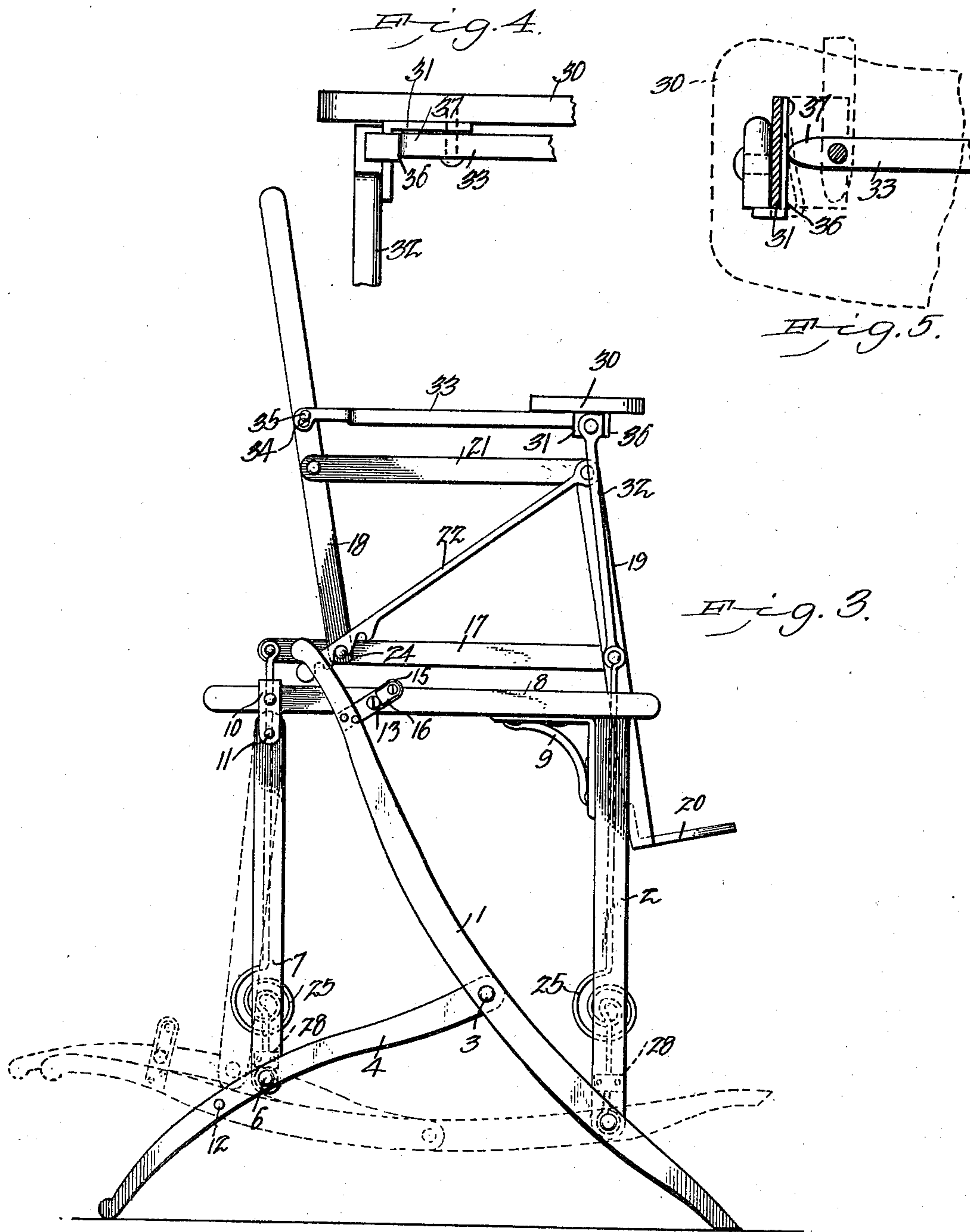
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UNITED STATES PATENT OFFICE.

GEORGE A. DUTTON, OF STREATOR, ILLINOIS.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 736,709, dated August 18, 1903.

Application filed September 4, 1902. Serial No. 122,115. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. DUTTON, a citizen of the United States, residing at Streator, in the county of Lasalle and State of Illinois, have invented a new and useful Chair, of which the following is a specification.

This invention relates to certain improvements in adjustable chairs, and has for its principal object to provide an improved construction of chair which may be converted at will into a rocking, standing, or reclining chair and in which the adjustment of the parts from one position to another may be easily and readily accomplished.

A further object of the invention is to so construct the several parts of the chair as to permit of the production of chairs of somewhat different type by merely altering the manner of connecting the parts, this being principally accomplished by changing the point of attachment of the supporting-springs so that the latter may be used in the same manner as ordinary springs or may be utilized as spring-links to permit swinging movement of the chair.

A still further object of the invention is to provide an improved means of connecting and interlocking the members of a convertible rocking and standing chair, and a still further object is to provide an improved form of tray-support whereby the tray may be maintained in a horizontal position without regard to the position of the chair proper.

With these and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a convertible chair constructed in accordance with my invention and illustrating the same adjusted in position for use as a rocking-chair. Fig. 2 is a side elevation of the chair as adjusted to standing position. Fig. 3 is a side elevation of the chair, illustrating a modification in the

arrangement of the supporting-springs. Fig. 4 is a detail plan view of a portion of the tray-locking mechanism. Fig. 5 is a side elevation of the same.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The base portion of the chair comprises oppositely-disposed rockers 1, pivoted near their front ends to vertical side standards or legs 2 and connected by pivot-pins 3 to rear leg members 4. Each of the leg members 4 has an opening at 5 for the reception of a headed pivot-pin 6, carried by a rear standard 7. The upper end of the standard 2 is rigidly secured to a top rail 8, the connection being strengthened by a corner bracket or brace 9, and the rear end of the rail 8 is provided with a strap 10, rigidly secured to the rail member and extended below the same to form pivot-ears, which are connected to the rear standard 7 by a pivot-pin 11. This structure, in connection with suitable cross-bars, forms the base of the chair, and said base portion may be adjusted to the position shown in Fig. 1 or to the position shown in Fig. 2. In order to lock the parts in adjusted position, the rear leg member is provided with a headed pin or screw 12, and the upper rail member 8 has a similar pin or screw 13. These pins or screws are received into the enlarged portion of a slot 14, formed in a small plate 15, which is rigidly secured to the rocker-bar 1, and when the enlarged head of the pin or screw is passed through the slotted plate the contracted portion of the slot is engaged with the smaller diameter of said pin or screw and the two are rigidly locked in place by a pivoted locking-plate 16, carried by the plate 15 and serving to prevent any accidental disengagement of the parts.

The chair portion proper comprises opposite seat-rails 17, suitably connected to each other and carrying any preferred form of chair bottom or cushion, and a back-section 18, pivoted to the side rails. To the front end of the seat-rails are pivoted vertical bars 19, which extend both above and below the seat-rails and are connected at their lower ends by a suitable foot-rest 20. The upper ends of the bars 19 are pivotally connected to the front ends of horizontal bars 21, which

extend to and are pivotally connected with the sides of the back 18, these bars forming arm-rests when the chair is used for ordinary purposes, and the tray is adjusted to the dotted-line position shown in Fig. 2. The pivot-pin which connects the members 19 and 21 serves also as a fulcrum for a ratchet-bar 22, extending diagonally across the frame formed by the members 17, 18, 19, and 21. The ratchet-bar has a number of notches for the reception of the end of the pivot-pin 24, which connects the seat-rails to the chair-back and permits adjustment of the quadrangular frame in order to alter the relative angles of the seat and back portions of the chair, it being thus possible to adjust the back to an erect position or slightly angular position for ordinary uses or to lower the back when the device is to be used as a reclining-chair.

The chair member is connected to the supporting-base by a pair of springs 25 on each side, each spring being in the form of an elastic bar having an intermediate portion curved in volute form. The front spring members when the springs are to be employed as swinging links extend between the front portions of the upper rails 8 and the lower ends of the front bars 19, while the rear springs extend from the rear portions of the upper rails to the lower ends of brackets 26, which are secured to the rear ends of the seat-rails for this purpose. This permits of a swinging movement of the chair or seat member independent of the rocking member. When the springs are to be employed in the ordinary manner, their lower ends are connected, respectively, to the pivot-pins at the lower ends of the front and rear standards 2 and 7 and are further confined in position by clips 28, which surround the lower portions of the springs and are confined to said standards. The upper ends of the springs are connected directly to the front and rear ends of the seat-rails, and the weight of the chair and its occupant is supported by the springs. The arrangement also permits of slight swinging movement, the clips 28 forming a fulcrum for the movement of the springs.

The chair is provided with a tray 30, to the under side of which are secured a pair of small clips or brackets 31, to which are fulcrumed side rods 32, pivotally hung on the pins which connect the seat-rails to the front bars 19, the side bars being of sufficient length to permit the adjustment of the tray to the position shown in full lines in Figs. 1 and 2 or to the dotted-line position in Fig. 2. To the tray is pivoted a pair of horizontally-disposed side arms 33, which may be moved to a position under and parallel with the tray or may be turned out at right angles thereto when the tray is adjusted to position for use, as shown in Figs. 1 and 2. At one end of each of the arms is a keyhole-slot 34 for the reception of a pin 35, carried by one of the side bars of the chair-back, so that the tray

will be properly supported in position, and when in use the members 33 will form arm-supports for the occupant. To each bracket member 31 is secured a spring 36, bent at a right angle at its free end in such manner as to engage with the flattened side of one of the connecting-bars 32. The pivoted ends of each of the side arms 33 is provided with a lug 37, adapted to engage the spring, and when in the position shown in Figs. 1 and 2 the spring will be disengaged from the connecting-bar 32 to permit free pivotal movement and maintain the tray in a horizontal position without regard to the movement or the position of the chair seat or back. When the tray is to be adjusted to the position shown in dotted lines in Fig. 2, the rear ends of the arms are disconnected from the pins 35 and are turned inward to a position under and parallel with the tray. The lugs 37 of the respective arms are thus brought into engagement with the springs 36, and the angular ends of the latter are forced against the flattened sides of the connecting-bar 32 to lock the tray to the arms and prevent swinging movement of the tray after the latter has been turned to a position below the foot-rest.

Having thus described my invention, what I claim is—

1. In a convertible chair, the combination of the base-frame comprising oppositely-disposed upper rails, front standards rigidly secured thereto, rear standards pivoted to the rails, rocker-bars pivotally connected to the lower ends of the front standards, rear leg members pivoted at one end to the rocker-bars and at an intermediate point to the lower ends of the rear standards, means for locking the rocker-bars to either the rear legs or the upper rails, and a seat member carried by said base-frame.

2. In a convertible chair, the combination of the base-frame, comprising an upper rail disposed at each side of the frame, front and rear standards, combined rocker-bar and leg members pivotally connected to said front and rear standards and to each other, a slotted plate carried by the rocker, pins on the leg and rail members for engagement with said slot, a locking-plate for maintaining the pin in engagement with the slot, and a seat member carried by said base member.

3. In a convertible chair, the combination with a supporting-base, of a seat member, and elastic tension-bars adapted to be subjected to strain in the direction of their length, said bars being bent into volute form in the plane of the bars at a point intermediate of their ends, the remaining portions of the bars being straight and the opposite ends of said bars being connected respectively to the supporting-base and the seat member to form pivoting-links between the two, substantially as specified.

4. The combination in a convertible chair, of the supporting-base, the pivotally-connected seat and back members, front bars pivot-

ed to the seat member, side arms pivotally
connecting said front bars to the back, a foot-
rest connecting the lower ends of said bars,
brackets depending from the rear portion of
5 the seat member, and elastic bars pivotally
connecting the lower ends of the brackets to
the base and the lower ends of said front bars
to the base, said elastic bars being bent into
volute form at a point intermediate of their
10 ends.

5. The combination in a convertible chair,
of the seat, the pivoted back portion, pivoted
side bars disposed at the front of the seat and
carrying a foot-rest, said bars having a piv-
15 otal connection with the pivoted back, pivot-
ed bars arranged at each side of the seat, a
tray having a pivotal connection with said
bars, a spring for locking the tray and bars
to prevent independent movement of either,
20 side arms pivoted to the tray and adapted to
engage the springs, and means for detach-
ably securing the rear ends of said side arms
to the chair-back.

6. The combination in a convertible chair,

of the supporting-base, the seat-rails, a back- 25
section pivotally connected thereto, front
bars pivoted at a point intermediate of their
ends to the front ends of the seat-rails, a foot-
rest connecting the lower end of said bars,
upper bars pivotally connecting the front 30
bars and the chair-back, a tray, pivoted side
bars carrying the tray, brackets depending
from the tray for connection with said side
bars, springs secured at one end to the brack-
ets and adapted to engage with and lock the 35
side bars, side arms pivoted to the under side
of the tray and having lugs for engaging said
springs and being further provided with key-
hole-slots, and headed pins or screws carried
by the chair-back for engaging in said key- 40
hole-slots.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

GEORGE A. DUTTON.

Witnesses:

GEO. E. MASON,

A. J. PRAFCKE.