

No. 714,562.

Patented Nov. 25, 1902.

A. J. CRANDALL & C. A. WOOD.

FOLDING CHAIR.

(Application filed May 26, 1900.)

(No Model.)

Fig. 1.

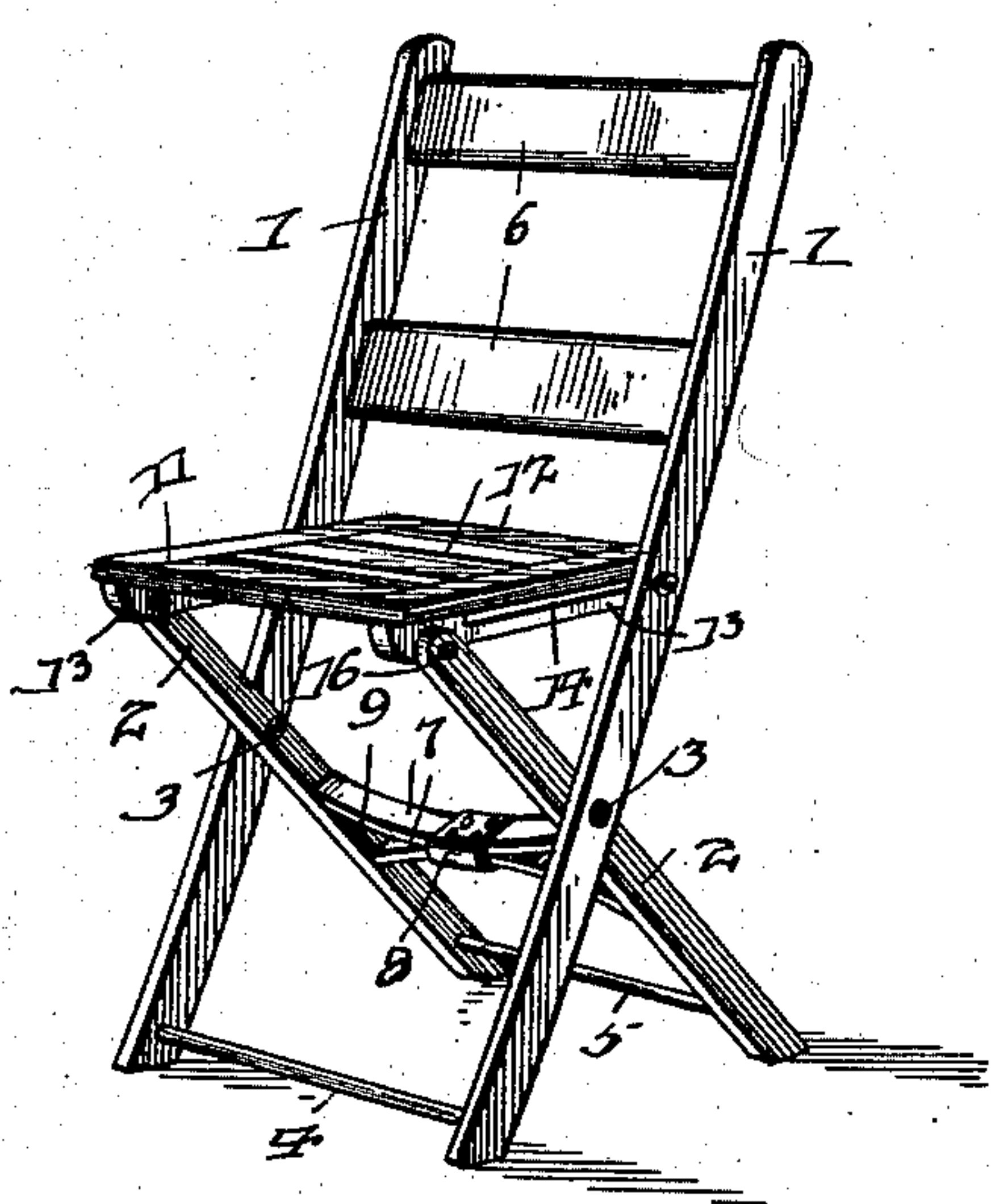


Fig. 2.

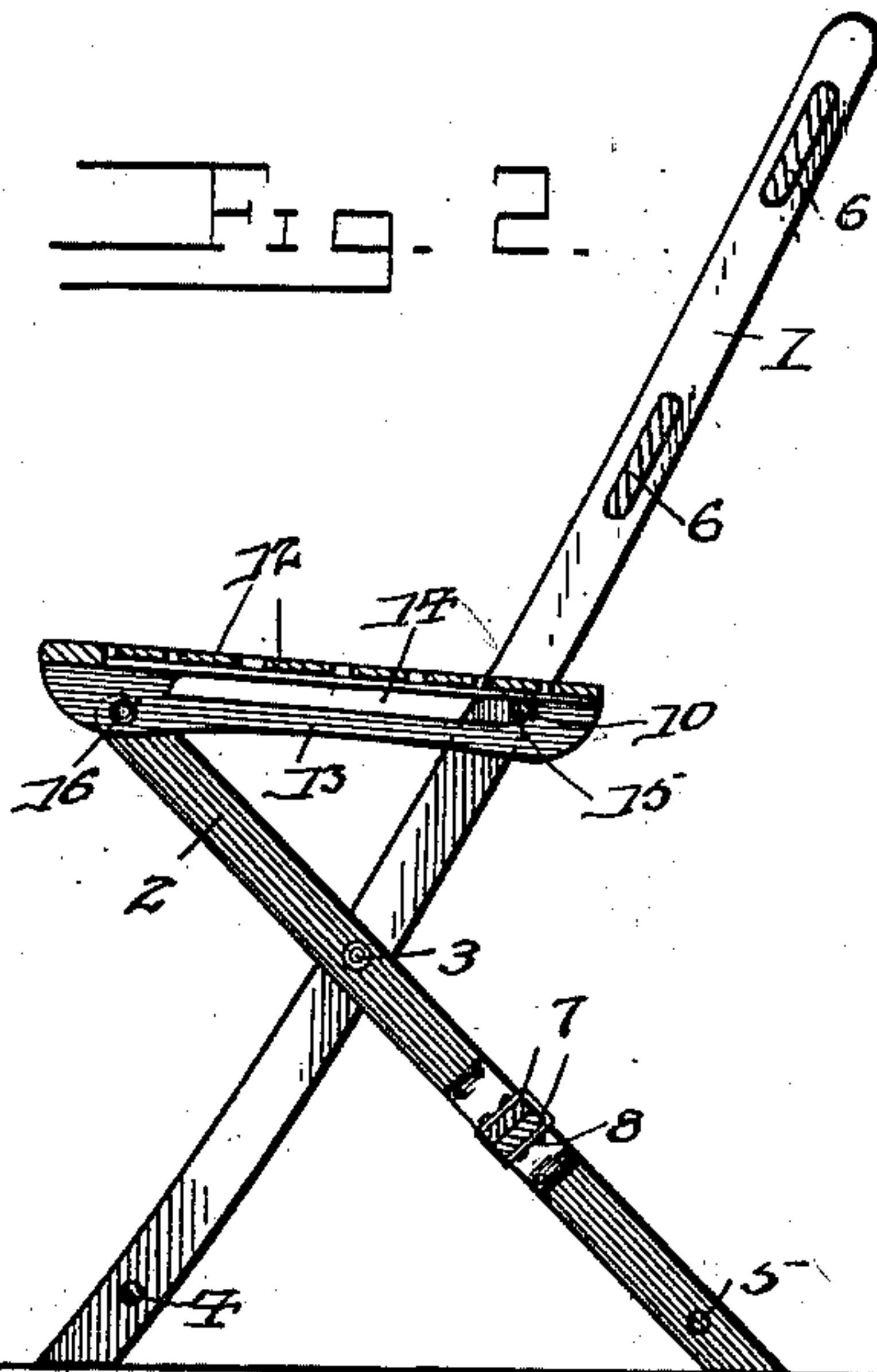


Fig. 3.

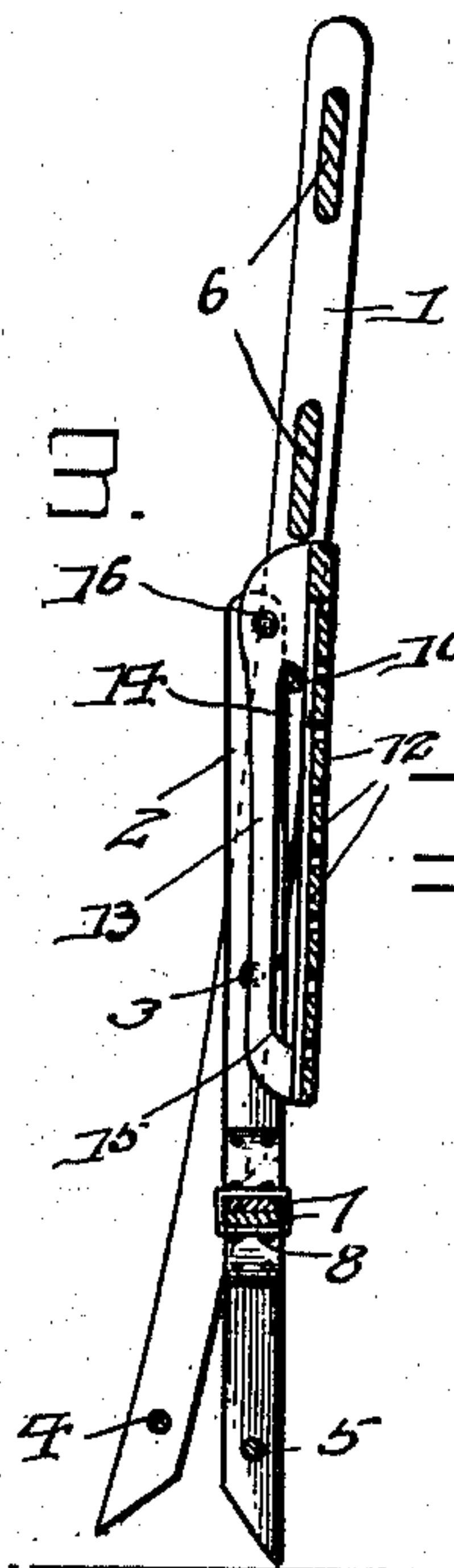
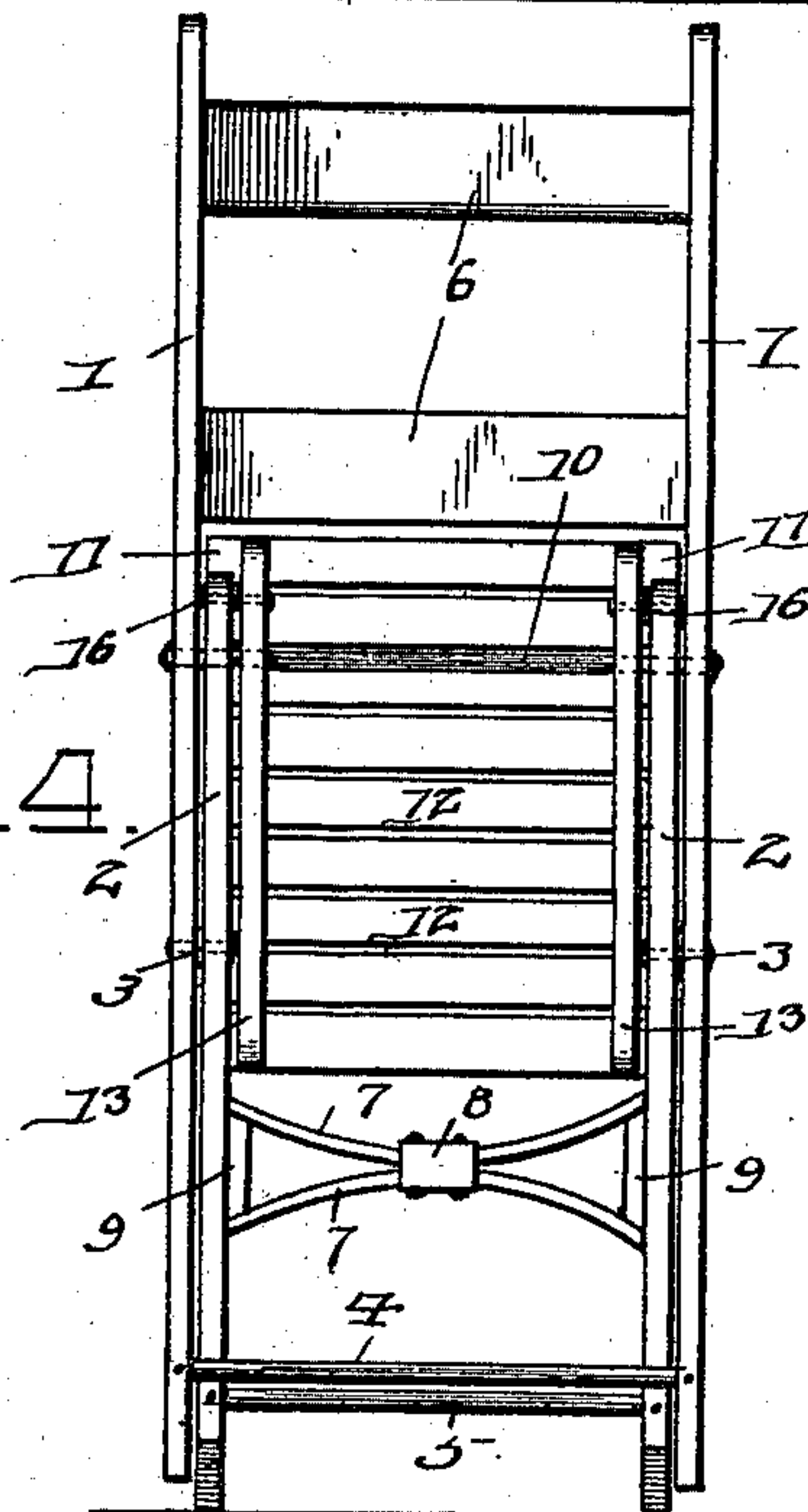


Fig. 4.



Witnesses

J. E. Alden.

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A. J. Crandall & C. A. Wood, Inventors

By

*[Signature]*  
Attorneys



# UNITED STATES PATENT OFFICE.

ANDREW J. CRANDALL AND CHARLES A. WOOD, OF KALAMAZOO, MICHIGAN.

## FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 714,562, dated November 25, 1902.

Application filed May 26, 1900. Serial No. 18,146. (No model.)

*To all whom it may concern:*

Be it known that we, ANDREW J. CRANDALL and CHARLES A. WOOD, citizens of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented a new and useful Folding Chair, of which the following is a specification.

This invention relates to folding chairs, and has for its object to provide certain new and useful improvements whereby the chair may be folded into compact form without presenting any projections, so that a number of chairs may be conveniently carried upon the arm of a person without the danger of them accidentally opening. It is furthermore designed to permit of the chair being folded and opened in a convenient manner and to arrange the parts thereof so as to form a substantial chair, which will not collapse when the chair is tilted backward.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a folding chair constructed in accordance with the present invention. Fig. 2 is a vertical longitudinal sectional view thereof. Fig. 3 is a similar view in the folded position of the chair. Fig. 4 is a front elevation of the chair in its folded position.

Corresponding parts are designated by like characters of reference in all of the figures of the drawings.

Referring to the drawings, 1 designates the back-standards of the chair, to the inner sides of which are pivotally connected the short legs 2 by means of rivets 3. The lower ends of the back-standards are braced and connected by means of a transverse rail or bar 4, and the short legs are braced and connected by means of a similar bar or rail 5. The upper portions of the back-standards are connected by means of two or more flat slats 6 to form the back of the chair. Below the

pivotal connection of the legs the short legs are braced and connected by means of a pair of transverse oppositely-bowed flat braces 7, that have their intermediate portions in contact with each other and connected by means of a metal clip or band 8, that embraces the braces and is riveted or otherwise connected thereto. The opposite ends of the braces fit against the respective inner sides of the short legs, and between adjacent ends of the braces are provided the blocks 9, that are fastened to the legs, while the braces are connected to the opposite ends of the blocks. Intermediate of the pivotal connection of the legs and the lower slat of the back there is provided a transverse brace-rod 10, which passes through both back-standards and has its opposite ends upset against the outer faces thereof.

The seat is formed by the opposite longitudinal frame-pieces 11, which are connected by means of the transverse slats 12, and is of a size to slide freely between the opposite back-standards. Secured to the under side of the seat and inwardly from the opposite sides thereof are the opposite longitudinally-disposed sill-pieces 13, that preferably extend for the entire length of the seat, and each sill is provided with a longitudinal slot 14 to slidably receive the adjacent portion of the rod 10. This slot is preferably formed by a groove in the upper edge of the sill, so that the slot may be as high as possible, and is closed by the seat. The rear end of each slot is rounded upwardly, as indicated at 15 in Figs. 2 and 3 of the drawings, so as to fit snugly the rod 10, and thereby prevent any looseness of the seat at the rear end thereof when the chair is in its normal set-up position. The upper end of each short leg is pivotally connected to the outer side of the forward end of the adjacent sill, as indicated at 16, and each of these pivotal connections is located below the base of the slots in the sills, so that when folded, as shown in Fig. 3, the pivotal connections 16 do not come into vertical alinement with the rod 10, whereby it is not necessary to notch the rear sides of the short legs to receive the rod 10, and the seat folds flat against the rear sides of the back-standards, so that there are no projections when the chair is folded.

In order that the legs may be conveniently



pivoted below the plane of the slots without increasing the thickness of the entire sills, the forward end of each sill is provided with a pendent offset 17, to which the adjacent leg 5 is pivoted, as plainly shown in the drawings. Moreover, the forward end of each slot is terminated short of the pendent offset, as plainly shown in Fig. 2, and said end wall rests against the transverse rod 10 in the folded position of the chair, as shown in Fig. 3, the 10 said end wall being undercut, as at 18, so as to form a hook-shaped wall to snugly embrace and hang upon the rod, and thereby prevent looseness of the seat in the folded position thereof, and thus obviate the liability 15 to accidentally unfold while being carried by the back of the chair.

What is claimed is—

The combination in a folding chair, of the 20 back-standards 1, transversely-disposed supports connecting said standards at their upper and lower ends, a transversely-disposed rod 10 extending through and between the standards and having its opposite ends riveted on the exterior faces of said standards, 25 oppositely-disposed short legs 2 arranged within the standards and pivotally connected intermediate of their ends to said standards, a seat portion of a width approximately equal 30 to the distance between the inner faces of the standards, sills 13 secured to the under side of the seat at points inwardly from the opposite edges thereof at a distance equal to the thickness of the short legs 2, said sills extending for the full length of the seat and having

pendent front portions, pivots connecting said pendent front portions of the sills to the upper ends of the short legs, there being in each sill an elongated and widened slot 14 for the free passage of the rod 10, the rear end 40 of each slot having its lower wall curved upwardly to form a seating and locking recess in which said rod 10 is wedged when the chair is unfolded and permitting of the carrying of the chair in unfolded position, and the forward ends of said slots having inclined walls 45 for contact with the rod 10, said inclined walls being adapted to be engaged with said rod when the chair is being folded to thereby throw the seat to the rear and retain the chair 50 in folded position, the distance between the lower walls of said slots and the surface of the seat being less than the distance between the surface of the seat and the pivotal connection of the legs and sills, oppositely-bowed 55 transverse braces 7 rigidly secured to the lower portions of the short legs and presenting convex faces to each other, a clip or band 8 centrally secured to the braces and extending around the same, and short blocks 9 60 interposed between and spacing the ends of the braces, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ANDREW J. CRANDALL.

CHARLES A. WOOD.

Witnesses:

I. NAT WATTLES,

J. E. PEASE.