

No. 780,010.

PATENTED JAN. 10, 1905.

C. METTLER.  
FOLDING CHAIR.  
APPLICATION FILED MAY 10, 1904.

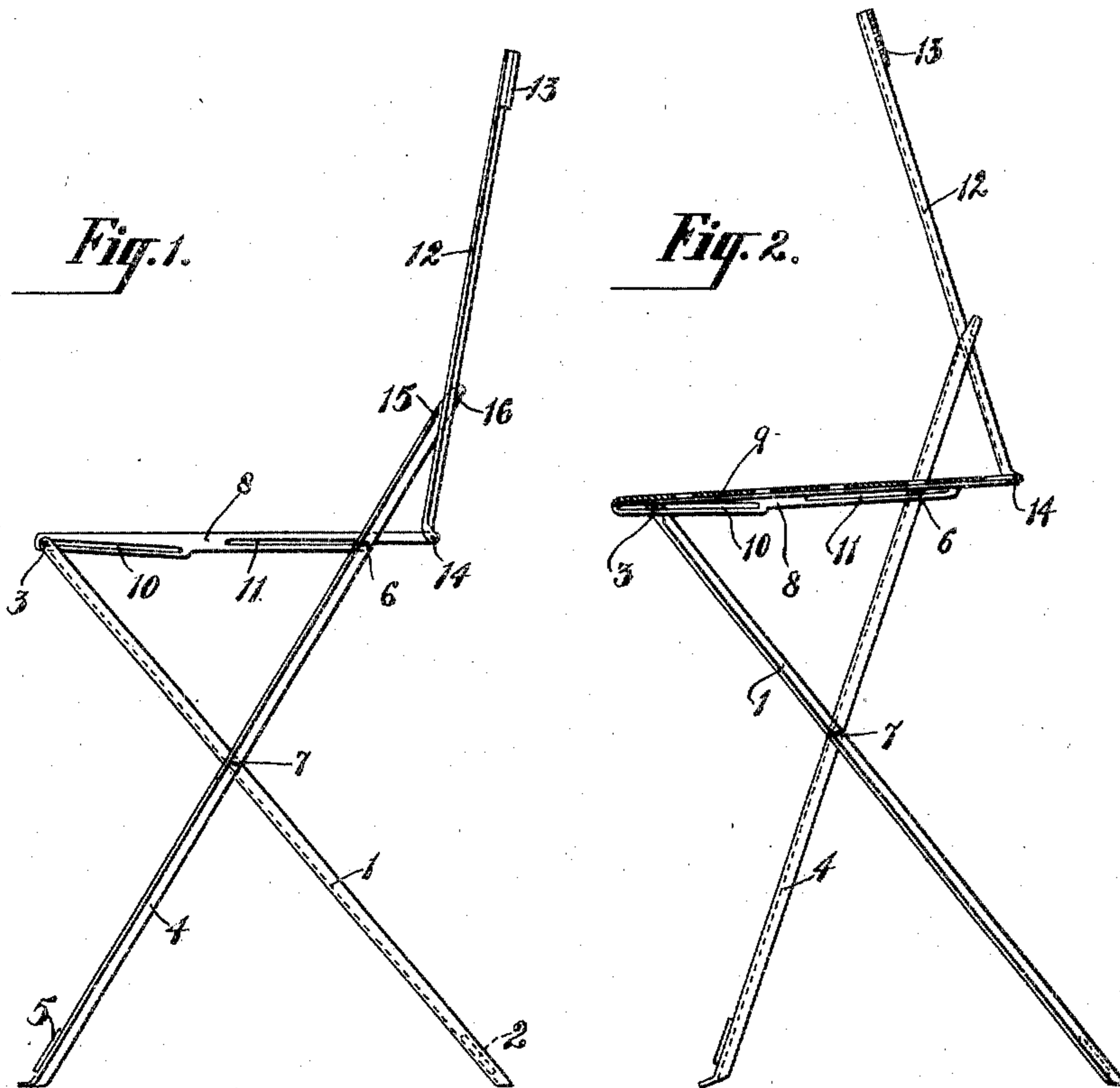


Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Witnesses:  
H. S. Hackenberg,  
J. George Barry.

Inventor:  
Caspar Mettler  
by attorneys  
Brown & Seward

# UNITED STATES PATENT OFFICE.

CASPAR METTLER, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF TO ROLLIN S. WOODRUFF, OF NEW HAVEN, CONNECTICUT.

## FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 780,010, dated January 10, 1905.

Application filed May 10, 1904. Serial No. 207,203.

*To all whom it may concern:*

Be it known that I, CASPAR METTLER, a citizen of the United States, and a resident of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Folding Chairs, of which the following is a specification.

My invention relates to an improvement in folding chairs, and has more particularly for its object to provide certain improvements in the construction, form, and arrangement of the several parts of a chair of this type whereby the chair may be made extremely light and strong, in which it may be folded very compactly, the back being drawn inwardly when the chair is folded to lessen the length of the chair, and in which the back may be extended and brought into a comfortable angle with respect to the seat when the chair is unfolded in position for use.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 represents the chair in side elevation in its unfolded position as in use. Fig. 2 is a vertical section from front to rear through the chair when the chair is partially folded. Fig. 3 is a side view of the chair completely folded. Fig. 4 is a back view of the chair in its unfolded position. Fig. 5 is an enlarged detail back view of a portion of the chair in its folded position. Fig. 6 is a detail view of the sliding pivotal connection between one of the back members and its leg member, and Fig. 7 is an enlarged horizontal section taken in the plane of the line A A of Fig. 4.

The side members of one pair of legs are denoted by 1, and they are spaced apart by one or more cross-pieces 2, of wood or other suitable material, and a cross-rod 3, preferably of metal, which connects their upper ends. The side members of the other pair of legs are denoted by 4, and they are also connected by one or more cross-pieces 5, of wood or other suitable material. These legs are also connected at points a short distance below their upper ends by a cross-rod 6, preferably of metal. The side members of the legs

are hinged together at 7. The side members of the seat are denoted by 8, and they are connected to the seat by cross-slats 9. Beneath the slats 9 each of the side members of the seat is provided with an elongated slot 10, through which the cross-rod 3 of one pair of legs is extended and in which it is fitted to slide to the front and rear. Each side seat member 8 is also provided with an elongated slot 11, through which the cross-rod 6 of the other pair of legs is extended and in which the rod is fitted to slide to the front and rear.

The side members of the back are denoted by 12, and they are connected by one or more cross-pieces 13, of wood or other suitable material, which will form a back-rest for the occupant of the chair. The lower ends of these side members 12 are hinged at 14 to the rear ends of the side members 8 of the seat. Each side member 12 of the back has a sliding pivotal connection with its corresponding side member 4 of one pair of legs at the upper end of the said side member, as follows: The upper end of the side member 4 is provided with abutments 15 16, fitted to loosely engage the front and rear edges of the side member 12 of the back.

The side members of the legs, the seat, and the back are all formed of angle-iron construction, thus producing a chair which is extremely light in appearance, yet strong and durable. When the chair is unfolded in position for use, the cross-rod 3 will be located at the front ends of the elongated slots 10 and the cross-rod 6 will be located at the rear ends of the elongated slots 11 near the seat side members, thus limiting the spread of the legs and defining the forward angle of the back with respect to the legs, with which it has a sliding pivotal connection. As the chair is being folded the cross-rods 3 and 6 will gradually approach each other, and when the chair is completely folded these rods will be located at the adjacent ends of the elongated slots 10 and 11.

It will be noted that the elongated slots 10 extend at a slight downward inclination from their front to their rear ends. This is for permitting the folding of the parts, so that

the two pairs of legs and the back will occupy one plane and the seat a parallel plane offset therefrom. It will also be seen that when the chair is folded the back is drawn inwardly, thus materially shortening the chair, and thus saving that much space.

It will furthermore be seen that the abutments 15 16 are formed the one by cutting off the transverse flange of the leg member a slight distance before it reaches the upper end of the member and the other by bending over a portion of the longitudinal flange of the leg member at right angles thereto, or, in other words, parallel to the said transverse flange. This is a very simple arrangement of the parts and is one in which the use of a sliding sleeve on the side members of the back is obviated.

What I claim as my invention is—

1. A chair comprising two pairs of legs hinged together, a seat having sliding pivotal connections with both pairs of legs and a back hinged to the seat having a sliding pivotal connection with one of said pairs of legs.

2. A chair comprising two pairs of legs hinged together, a seat having sliding pivotal connections with the upper ends of one pair of legs and a sliding pivotal connection with the other pair of legs below their upper ends and a back hinged to the seat and having a sliding pivotal connection with the upper ends of the last-named pair of legs.

3. A chair comprising two pairs of legs, a seat, a back hinged to the seat, the seat being connected to one pair of legs and the seat

and back having sliding pivotal connections with the other pair of legs.

4. A chair comprising two pairs of legs hinged together, a cross-rod connecting the upper ends of one pair of legs, a cross-bar connecting the other pair of legs below their upper ends, a seat having an elongated slot through which said cross-rods pass and a back hinged to the rear end of the seat and having a sliding pivotal connection with the upper ends of the last-named pair of legs.

5. A chair comprising two pairs of legs hinged together, a seat having sliding pivotal connections with the two pairs of legs and a back hinged to the rear end of the seat and having a sliding pivotal connection with one of the said pairs of legs by providing each leg with abutments fitted to loosely engage the front and back edges of the side members of the back.

6. A chair comprising two pairs of legs hinged together, a seat having sliding pivotal connections with both pairs of legs and a back hinged to the seat and having a sliding pivotal connection with one of said pairs of legs, the side members of the legs, seat and back being of angle-iron construction.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 9th day of May, 1904.

CASPAR METTLER.

Witnesses:

FREDK. HAYNES,  
HENRY THIEME.