

Charles Brada, Folding Chair,

116676

PATENTED JUL 4 1871

Fig. 1,

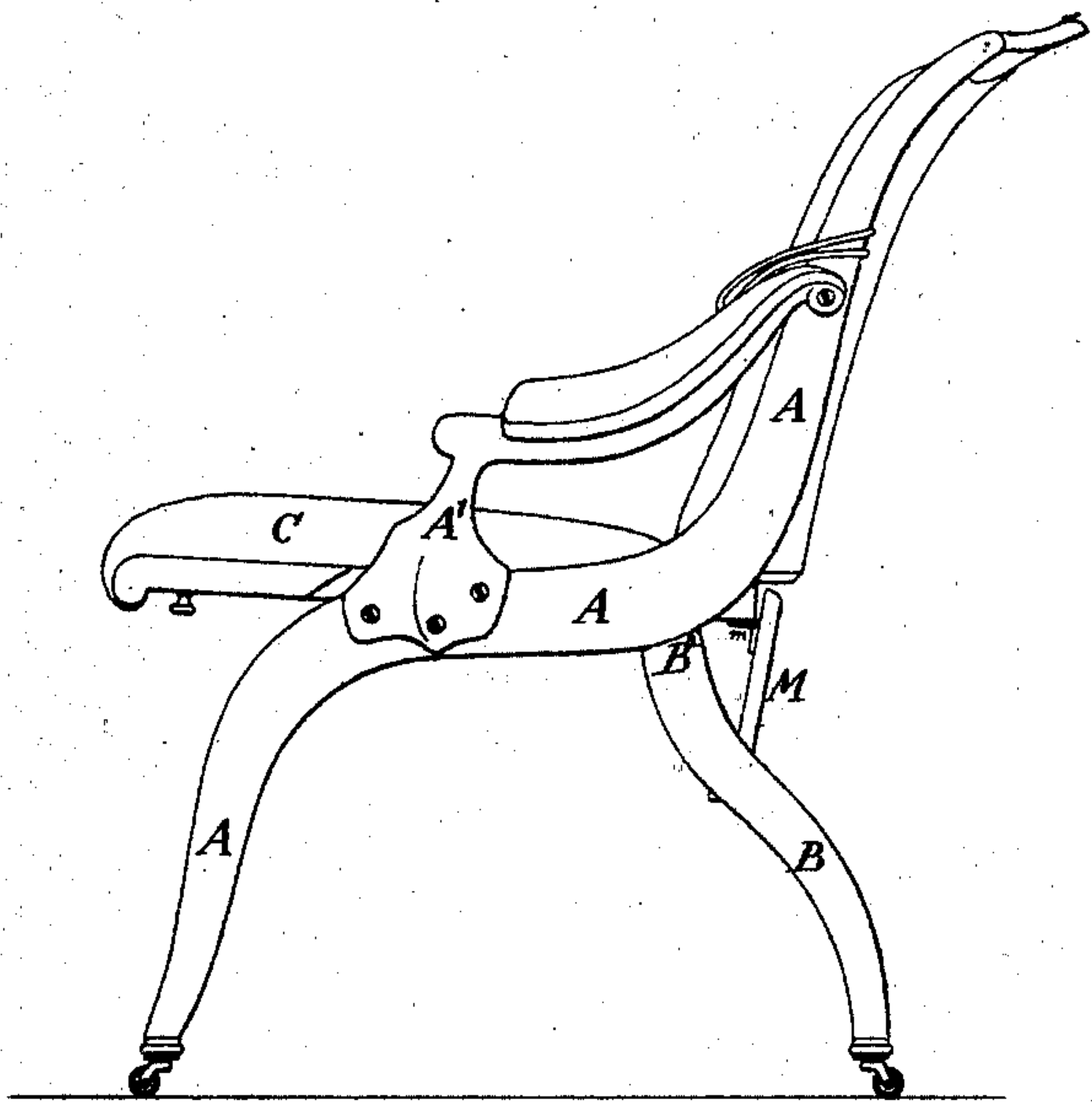


Fig. 3,

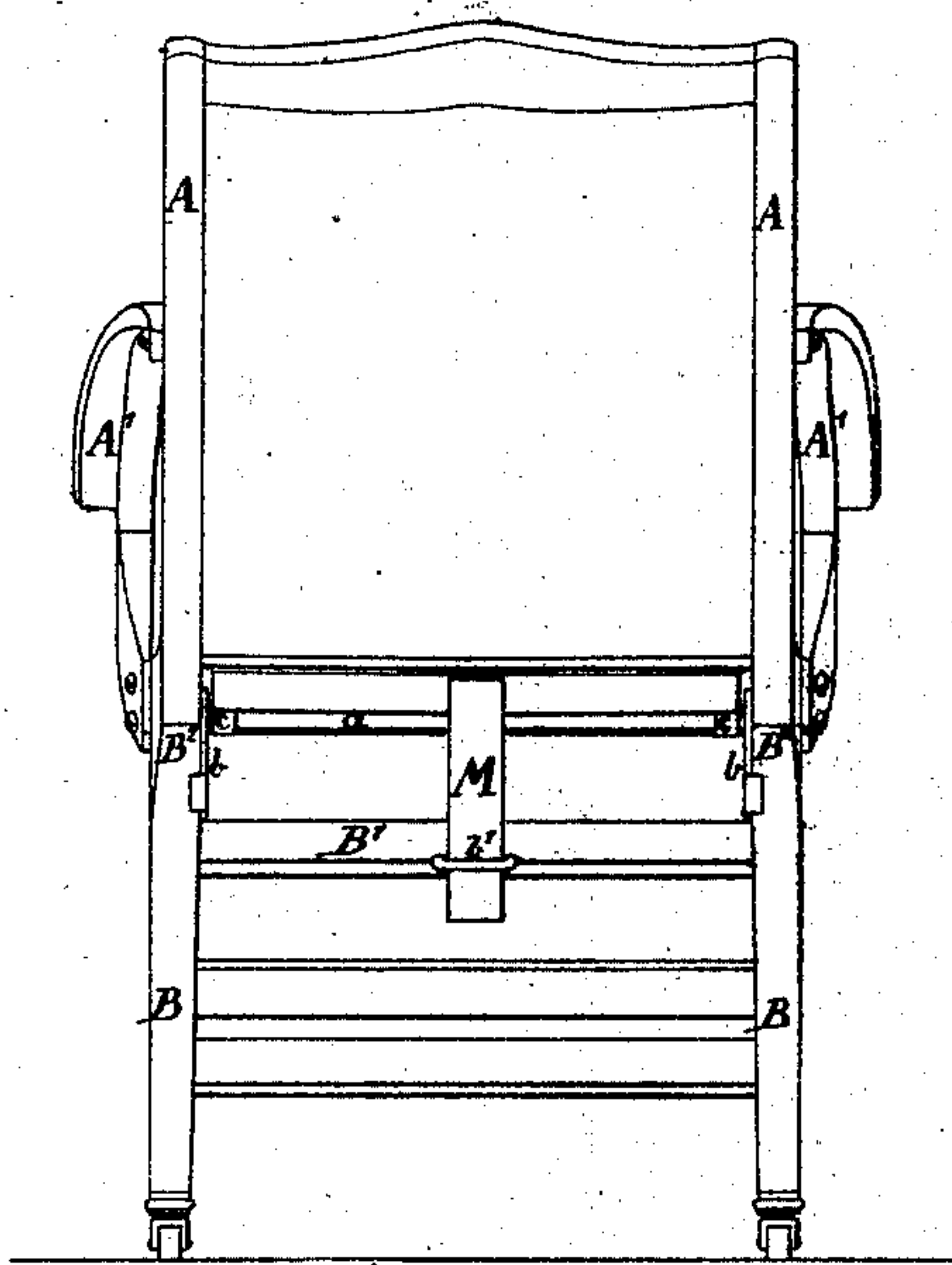


Fig. 2,

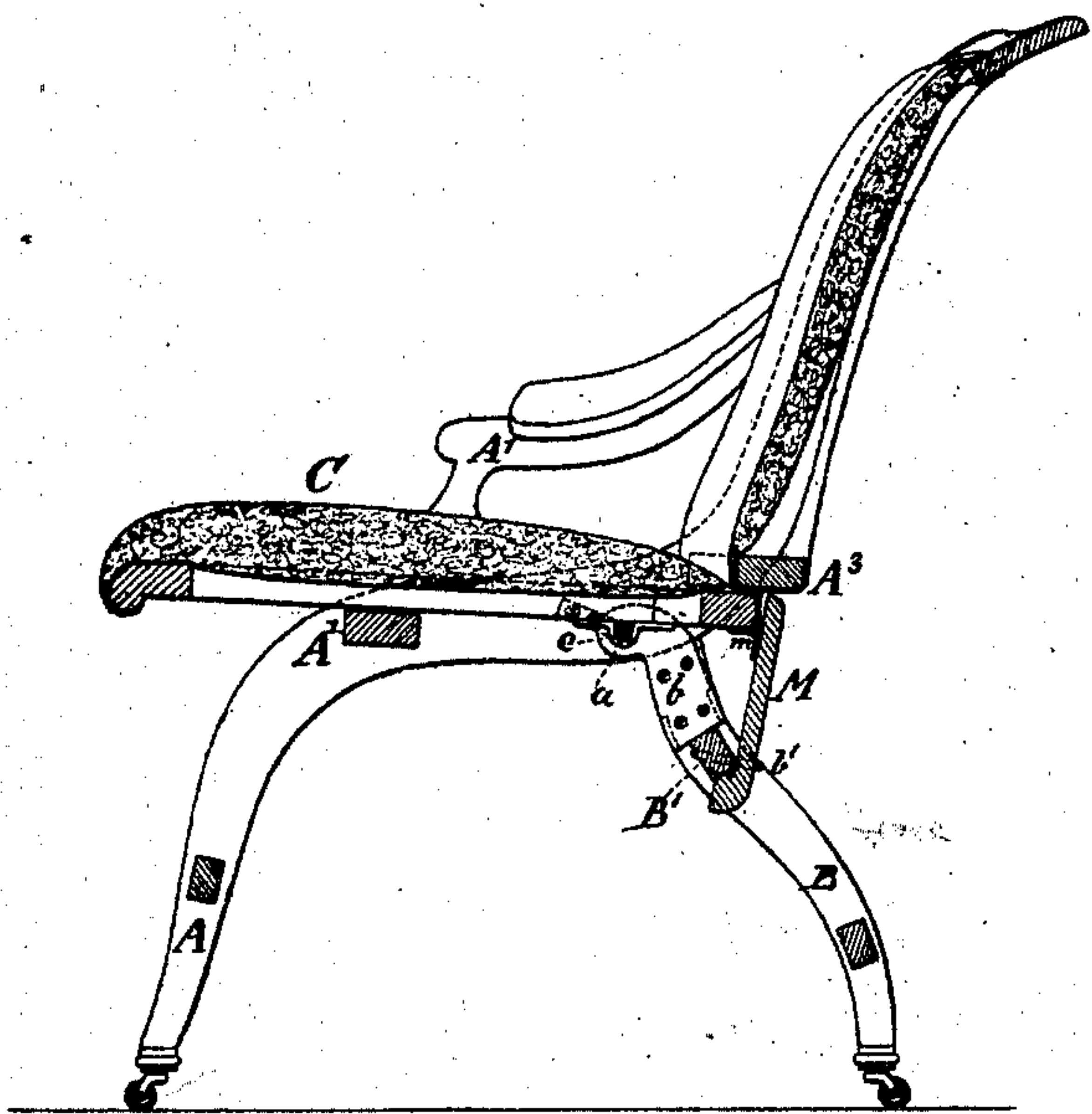


Fig. 4,

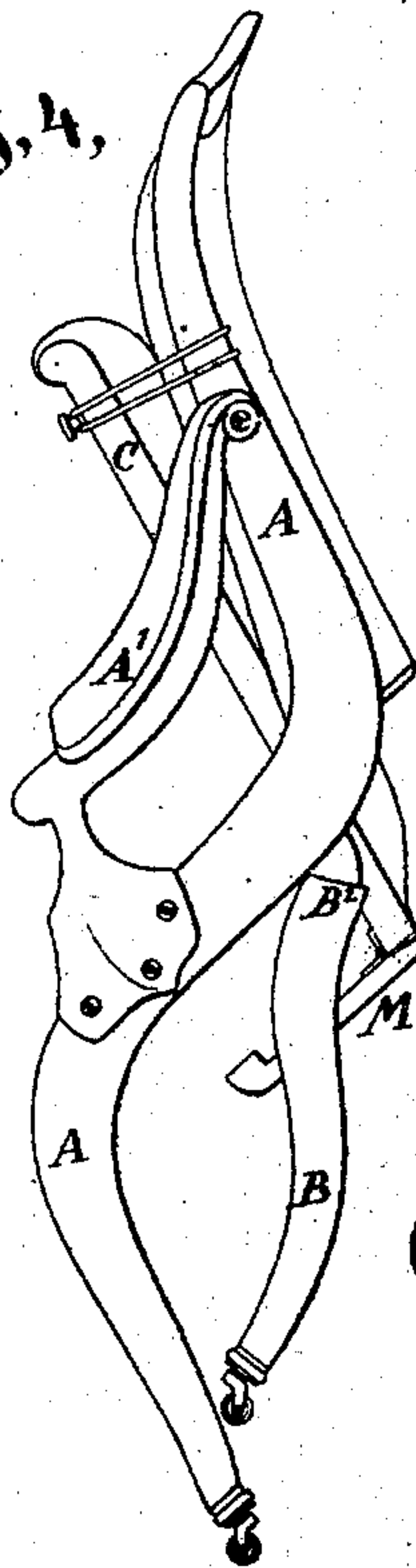


Fig. 5,

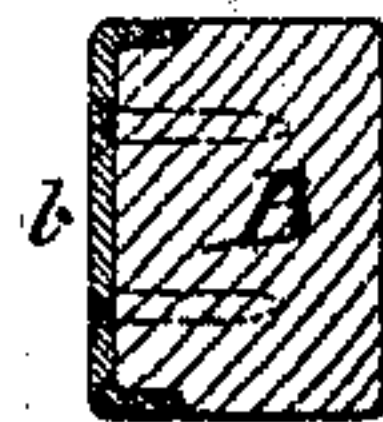
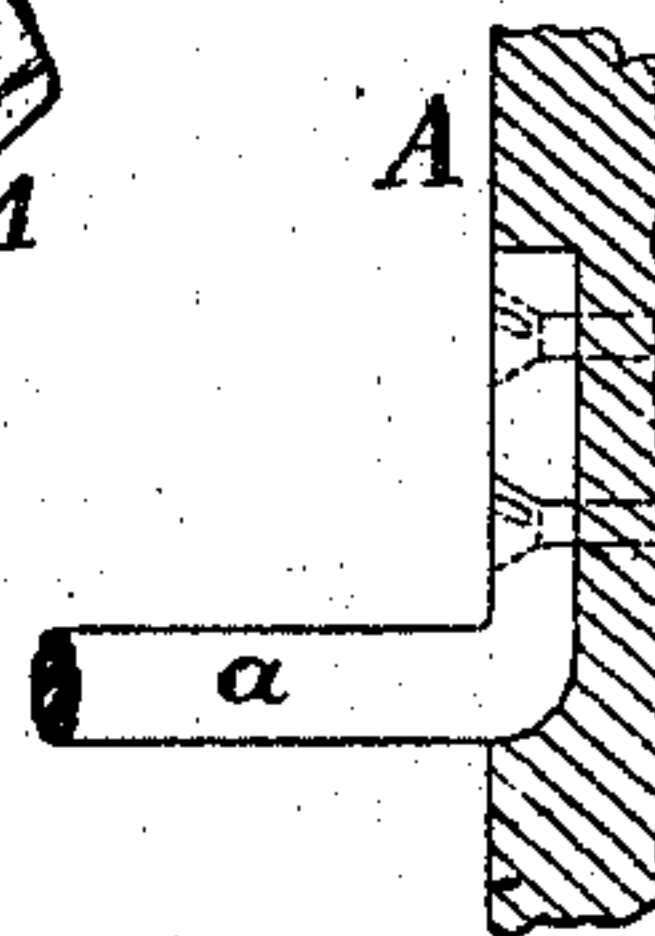


Fig. 6,



Witnesses,
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Inventor,
Charles Brada
By his attorney, J. H. Stetson

UNITED STATES PATENT OFFICE.

CHARLES BRADA, OF NEW YORK, N. Y.

IMPROVEMENT IN FOLDING CHAIRS.

Specification forming part of Letters Patent No. 116,676, dated July 4, 1871.

To all whom it may concern:

Be it known that I, CHARLES BRADA, of the city and county of New York, in the State of New York, have invented certain new and useful Improvements in Folding Chairs.

The improvements increase the strength. The principal parts exposed to strain bear very fairly upon each other, and by avoiding the severe oblique strains in most folding chairs the structure may be made very strong in proportion to the size and weight of the parts. The chair may be made of iron, or any suitable material, but I propose, under ordinary circumstances, to make the main portions of black walnut, or other good wood, with iron fastenings.

The following is a description of what I consider the best means of carrying out the invention:

The accompanying drawing forms a part of this specification.

Figure 1 is a side elevation in the expanded condition. Fig. 2 is a corresponding sectional view. Fig. 3 is a back view. Fig. 4 is a side view in the folded condition. Fig. 5 is an enlarged cross-section through the upper part of one of the back legs. Fig. 6 is an enlarged view of one of the bent ends of the axis.

Similar letters of reference indicate like parts in all the figures.

A A are stout pieces, which form the main frames of the back, the seat, and the front legs. A¹ A¹ are additional pieces, which form the arms and contribute to strengthen the part A. In making the chair of metal, the arms may be cast in one with the part A, or, in some cases, they may be omitted altogether. The frames A A are connected at several points by suitable cross-pieces, constituting the whole a rigid framing, as shown. B B are the back legs. They are connected by cross-pieces, the uppermost of which is marked B¹, and is about one-fourth of the distance down from their upper ends. They are hinged to the inner faces of the frames A A by stout eyes *b b*, which take hold of the axis *a* which extends across between the frames A A, in the position represented. This piece *a* forms the axis of motion both for the back legs B B and for the seat C, which latter is connected thereto by metallic eyes *c c*, which fit just within the eyes *b b*, above described. When the parts are folded together they occupy but little space,

as indicated by Fig. 4. They are in this position exposed to little strain; but when the chair is expanded for use, as shown in Fig. 1, the parts are exposed to great strain. My invention provides very completely for supporting the most severe strains. The seat turns on the axis *a* as a center, until it rests fairly on the stout cross-bar A², which connects the frames A A directly under the seat, as represented. At the same moment the back edge of the seat C comes in contact with the under face of the cross-bar A³, which connects the frames A A just at the rear of the seat. The seat is supported vertically by the axis *a* and the bar A², and is prevented from rattling by the back edge resting up against the cross-piece A³. The hinged back legs B B are braced against unfolding backward too far by the contact of the shoulder B² against the under face of A, and they are prevented from folding forward again, or any rattling motion, by the hinged hook-brace M, which is hinged to the back of the seat C at the point *m*, and catches hold strongly on the bottom of the cross-brace B¹. This hook-brace M is held always in close contact with the cross-brace B¹ by means of a loop, *b'*, fixed on the latter, which may be stout brass wire. It is exposed to no strain; its only function is to keep the hook-brace in position for its work. I make the axis or cross-shaft *a* in the form of a cylindrical rod, bent at right angles at each end. These bendings or L-portions are flattened and let into the inner faces of the frame A A, and are there secured by screws. The hinges or eye-pieces *b*, at the upper ends of the frames or back legs B B, are formed with wings or turned edges, which partially embrace the several frames or back legs B at their upper ends. This construction prevents the embraced portion of B from splitting, and allows them to be held very firmly by a few simple screws. The eye which takes hold of the shaft *a* may be a simple round hole; or the metal *b* may be thickened at that point so as to give a wider bearing, as will be obvious. The back and seat may be upholstered, or finished with cane-flag, or otherwise.

My chair does not fold into as small a space as many other devices for the purpose; but when unfolded for use it is better able to resist all the strains to which it is liable to be subjected than any one previously known to me. I attach much

importance to the fact that the seat is not only supported directly on the shaft *a*, but also on the firm cross-piece *A*²; and also to the fact that it is supported stiffly against any shaking or rattling motion by bearing up at its back edge under the cross-piece *A*³. I also attach much importance to the peculiar construction and arrangement of the shaft *a* and of the eyes *b*, which embrace it, and also partially embrace the upper ends of the back legs *B*. I also attach much importance to the hook-brace *M*, and its relation to both the frames *A A* and *B B*.

I claim as my invention—

1. The frames *A A*, shaft *a*, cross-piece *A*² and *A*³, and the seat-piece *C*, constructed and arranged for joint operation, as specified.
2. The within-described construction of the

eyes *b b*, embracing the shaft *a* and partially embracing the upper portions of the frames *B*, and arranged to serve relatively thereto and to the frames *A A* and seat *C*, as herein specified.

3. The within-described combination and arrangement of the frames *A A* with their several cross-pieces *A*² *A*³, the shaft *a*, connected by the hinges or eyes *b b* with the frames *B B*, the seat *C*, and the hook-brace *M*, the whole forming the improved folding chair herein described.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

CHARLES BRADA.

Witnesses:

THOMAS D. STETSON,
C. C. LIVINGS.