I. N. DANN.
Folding-Chair.

No. 211,290. Patented Jan. 7, 1879.

Fig. 1.

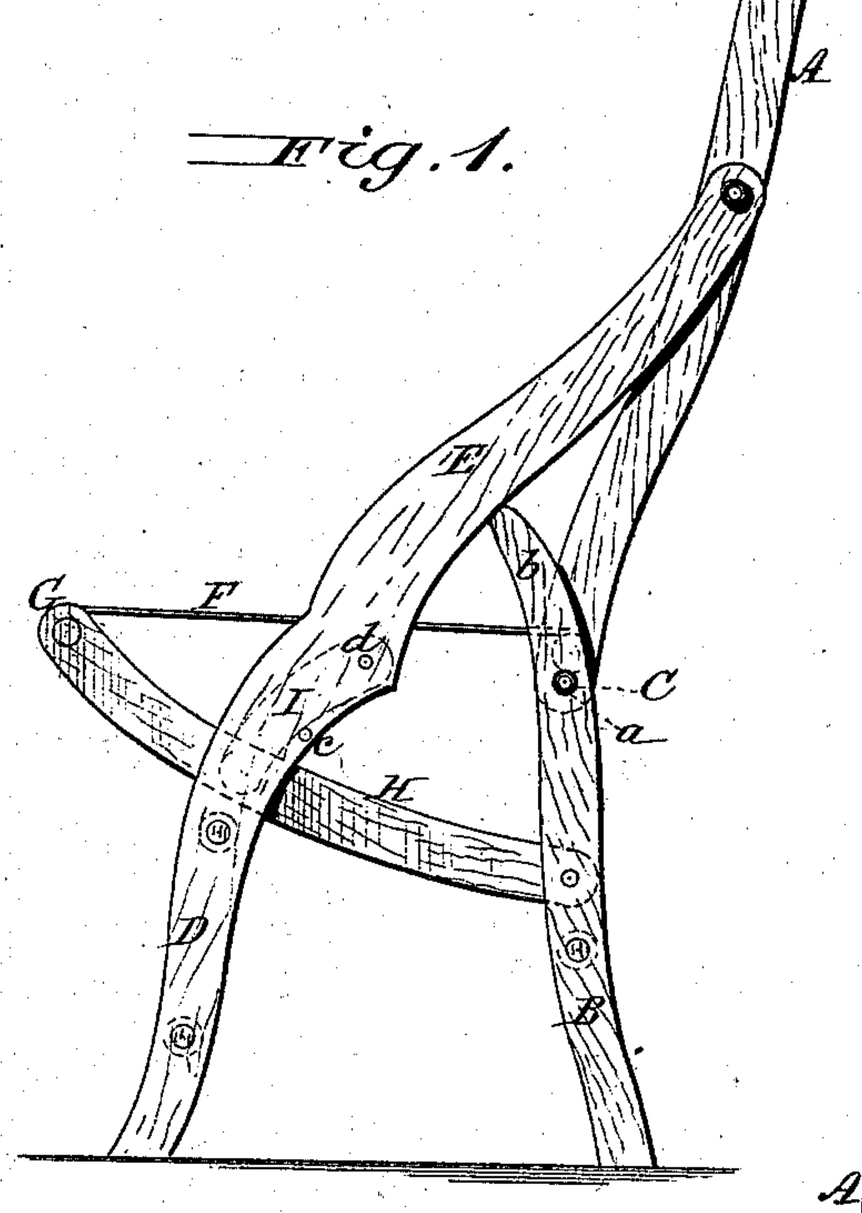


Fig. 2.

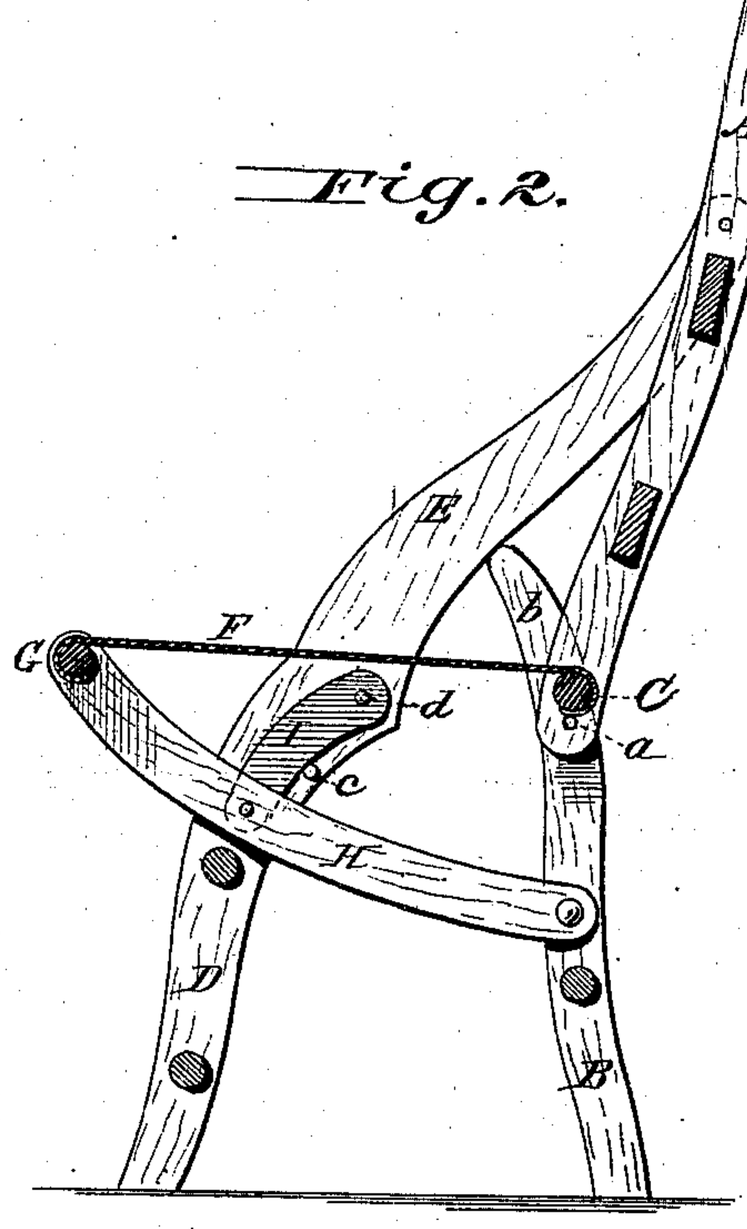
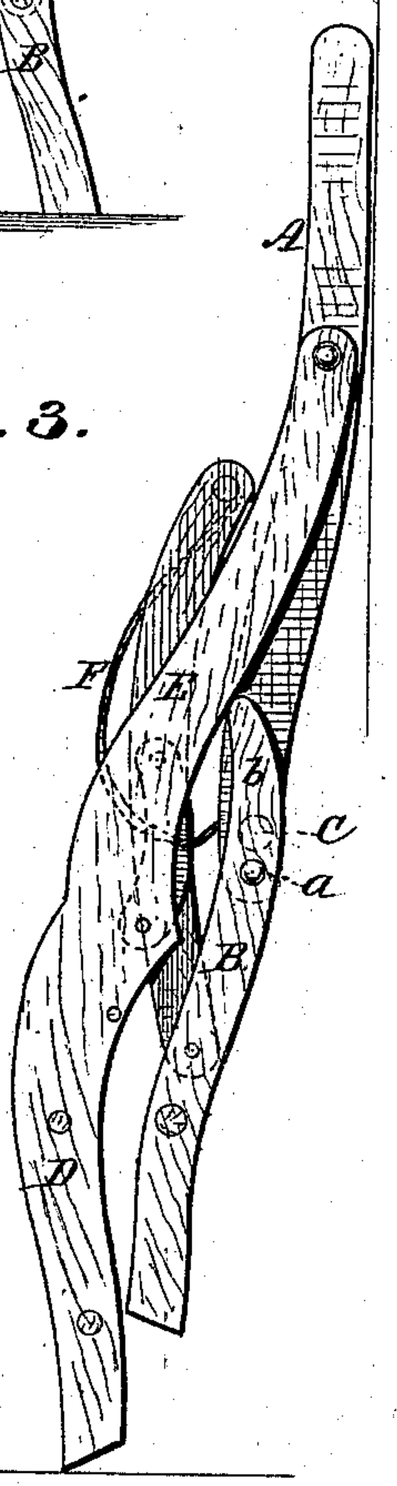


Fig. 3.



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UNITED STATES PATENT OFFICE.

ISAAC N. DANN, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO NEW HAVEN FOLDING CHAIR COMPANY, OF SAME PLACE.

IMPROVEMENT IN FOLDING CHAIRS.

Specification forming part of Letters Patent No. **211,290**, dated January 7, 1879; application filed November 25, 1878.

To all whom it may concern:

Be it known that I, ISAAC N. DANN, of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Folding Chairs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

I have improved the rigid-seat rocking-chair patented to me October 11, 1875, in particulars of construction, to adapt it as a folding chair with a flexible seat.

The specific improvements herein embrace a novel construction and combination, in which a flexible seat is connected to a divided back, and to supports which are pivoted to the lower part of said divided back, and by means of links also to the front legs, arm-extensions of which are pivoted to the back, said arms having such relation to upper curved extensions of the lower part of said back or rear legs as to cause such leg-extension to form bearing-supports for the divided or jointed back when the chair is unfolded, while the supporting-links, pivoted to the front legs, have such relation to the curved bearing-extensions of the rear legs and to the fixed pivots thereof as to cause said curved extensions to have a cam action against the arms to strain the seat and to keep it strained when unfolded.

This construction renders the seat-supports and the lower part or legs of the divided back independent of the arms and the back proper, for the purpose of controlling the positions of the extension-bearings in folding and unfolding the chair, and to render the chair-back rigid when the chair is unfolded.

Such a construction and combination makes a very durable flexible seat-folding chair, in which the divided back is rendered practically as a single frame when the chair is unfolded.

The back consists of two parts, the back A proper and the rear legs, B, pivoted together at or near the rear seat-round, C, with the legs extended above the fixed-joint pivot *a*, to form frontwardly-curved bearing-extensions *b b*, of a length adapted to have a specified movement with the seat-supports, for a purpose to be presently described.

The front legs, D, are extended above the seat and pivoted to the back, and form arms E, against the under sides of which the extension-bearings *b* press with a cam action when the chair is unfolded, and which renders the back sufficiently rigid to allow the chair to be carried and moved by it when the seat is strained.

The seat F is flexible, and is supported at its front by a round, G, and supports H, which are pivoted to the rear legs or lower part of the divided back below the pivot-joint of said back, while the supports are connected to the chair-legs by links I, pivoted to the supports and to the chair-legs, in a manner to be sustained when the seat is extended against pins or stops *c* on the inner sides of the front legs, so that the seat is supported upon the legs, and the jointed back is supported by the bearing-extensions *b b* of the rear legs bearing against the arms E. The pivots of the divided back form fixed joints, and the seat-supports and their connecting-links control the movement of the rear legs in a manner to bring the bearing-extensions into proper position when the chair is unfolded, and to move them away in folding the chair. For this purpose the seat-supports, their links, and the rear legs form a frame adapted to have a limited movement as an entirety, and the relation of the link-pivots *d* with the supporting extensions *b* is such as to cause the bearing or extensions to act with a cam-like action against the arms E to strain the seat before the links bear against the stop-pins. This is effected by having the back-joint pivots *a* and the link-pivots *d* on a horizontal line with each other, or substantially so, and the extension-bearings *b* of such projection from the fixed pivots as to bear against the chair-arms, while the rear legs are turning upon said pivots in unfolding the chair; and as the arms are fixed in relation to the rear legs, the lower ends of the back and the upper ends of the rear legs will be forced back, so as to strain the seat

upon its supports and keep it strained. This is an important advantage, as it prevents the seat from sagging.

The fixed pivots of the divided back are considerably nearer the front than the arm-connections with the back; and the bearing-extensions *b* are between these pivots and nearer the front of the seat than either of the pivots, so that when the chair is unfolded it will retain its sitting position.

In the drawings illustrating my invention, Figure 1 represents a side elevation; Fig. 2, a vertical section of the chair as unfolded; and Fig. 3, a view of it as folded.

Chairs in which the back is jointed to the rear legs and to arm-extensions of the front legs, to adapt them to be folded, are not new; nor in such construction is it new to utilize the rear legs by a slotted connection with the back to obtain a mortised bearing-connection of the rear legs with the chair-arms, and a mortised connection of the back with the seat-stretcher frame or supports by means of pivot-pins in the slots of said rear legs below said arm-bearing connections.

I claim—

1. In a folding chair, the back and the rear legs joined by fixed pivots *a*, the rear legs extended above and to the front of said pivots to form extension-bearings *b b*, and the front legs extended to form arms E, pivoted to the back, in combination with a flexible seat, seat-supports H, and the links, all constructed and adapted for use as described.

2. In a folding chair, the back and the rear legs connected by fixed pivots *a*, the bearing-extensions *b b*, above said fixed pivots, the seat-supports H, connected to the rear legs below said pivots, and the links connected to the front legs and to the seat-supports, whereby the positions of the extension-bearings are controlled in folding and unfolding the chair.

3. The fixed pivots *a* of the divided back and the upper pivots, *d*, of the links, arranged in the relation to each other stated, and in combination with the seat-supports H, arms E, and the extension-bearings *b b* of the rear legs projecting above said pivots *a*, curving toward the arm to give a cam-like action therewith to strain the seat in unfolding the chair.

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

ISAAC N. DANN.

Witnesses:

A. E. H. JOHNSON,

J. W. HAMILTON JOHNSON.