(No Model.) 2 Sheets—Sheet 1.

I. N. DANN.

FOLDING CHAIR.

No. 249,906. Patented Nov. 22, 1881.

Fig. 3.

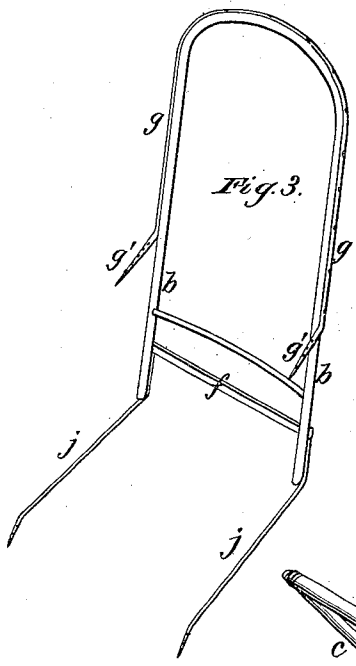


Fig. 2.

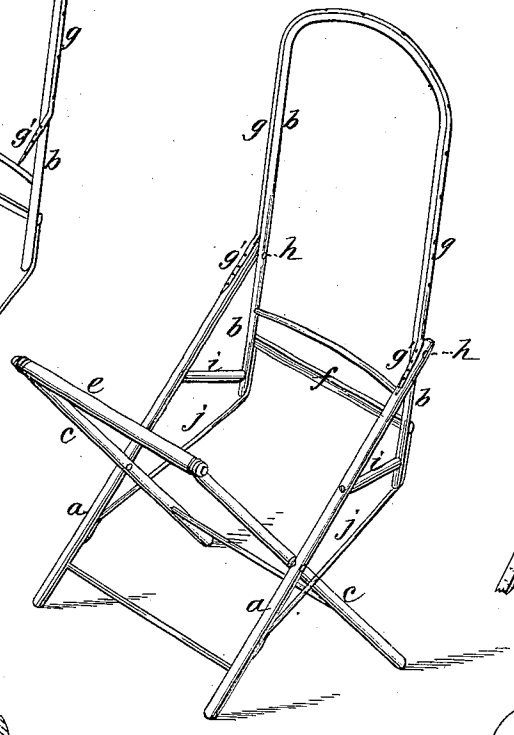


Fig. 4.

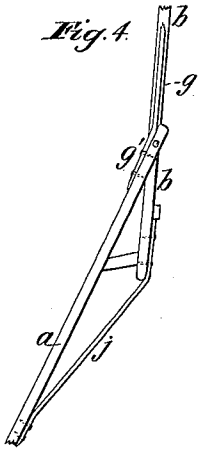


Fig. 6.

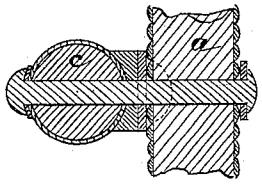
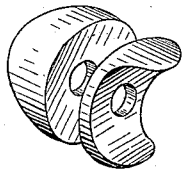


Fig. 5.



Witnesses.
Jas. E. Hutchinson.
Edmond Brodhag

Inventor.
Isaac N. Dann
by Johnson and Johnson
his Attys.

N. PETERS. Photo-Lithographer. Washington, D. C.

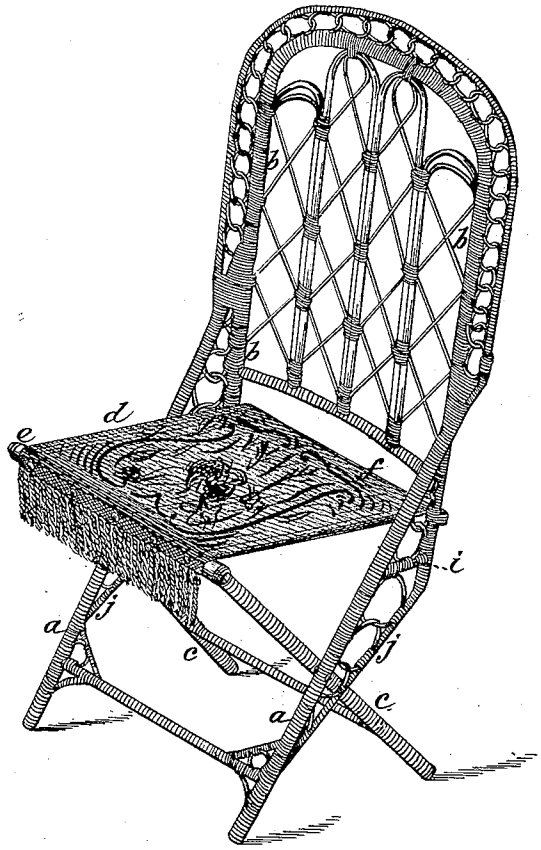
(No Model.) 2 Sheets—Sheet 2.

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FOLDING CHAIR.

No. 249,906. Patented Nov. 22, 1881.

Fig. 1.



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Inventor.
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N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ISAAC N. DANN, OF NEW HAVEN, CONNECTICUT.

FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 249,906, dated November 22, 1881.

Application filed June 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, ISAAC N. DANN, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented new and useful Improvements in Folding Chairs, of which the following is a specification.

In a separate application for a patent I have described and shown certain improvements in rattan-bound folding chairs. The subject-matter of this application embraces certain points of improvement in a rattan-bound folding chair differing in organization from that referred to. The frame is a light wooden structure of turned parts rendered strong by the rattan binding, so that the chair-back has a slight spring or flexure upon its connections under the weight of the occupant, which, in connection with a fabric or carpet seat, makes it easy and comfortable.

The specific matter of my said improvements embrace certain combinations which are the subject of the claims.

In a light chair of pivot-joined parts, depending almost wholly for proper strength upon the rattan binding, it is of vital importance, in a chair in which the back and the front legs are rigidly connected that the back be properly braced and strengthened. In the chair shown the rear crossed legs are adapted to be folded and unfolded upon the back and front legs. The connection of the back-frame with the front crossed legs is re-enforced by a brace secured around the back-frame, and crossing the junction of the latter is secured to the upper ends of the crossed front legs above the rivets, so that when these joining parts are bound with rattan the chair-back has a flexing capacity upon such connections, while below these joining parts the back-frame is both strengthened and stiffened by rattan braces nailed and bound to the lower ends of the back-frame and to the lower ends of the front legs.

Referring to the accompanying drawings, Figure 1 represents, in perspective, a rattan-bound folding chair embracing my improvements; Fig. 2, the skeleton or unbound frame of such chair; Fig. 3, the back-frame, showing its re-enforcing bent braces and detached from the legs; and Fig. 4, a detail of the back-frame, showing its braced connection with the front legs; Fig. 5, the rattan-protecting concave washers detached; and Fig. 6 shows a sectional view of the joint concave washer parts.

The organization of the chair shown is substantially such as folding chairs manufactured by the New Haven Folding Chair Company, and is of the style known as the "cross-legged."

In Fig. 2 I have shown the skeleton or unbound frame, in which the front legs, *a*, extend above the seat, and are rigidly connected to the back *b*, and form with it a single frame; and *c* are the rear crossed legs, pivotally connected by wrought-iron rivet-nails, so as to be folded upon the back and front legs. A fabric or carpet seat, *d*, connects the top round, *e*, of the rear legs with a bar or round, *f*, of the back, and serves as the means of sustaining the chair in position for use.

The frame of the back and the lower ends of the legs are suitably connected by cross-rounds. These frame parts are of comparatively light solid turned work, and are connected and secured by wrought-iron rivet-nails. Such connection, however, would prove inadequate to sustain the chair in use for any length of time; but the rattan binding re-enforces every part and gives the connected parts the requisite strength, so that the chair has an agreeable flexing or elastic set to the occupant in the back, combining an elastic back with a flexible seat, so conducive to the ease and comfort of the occupant.

As the entire surface of the solid wood parts are wrapped with rattan, it is of primary importance that the legs at their pivot-connections should be free from abrading or frictional contact, else the wrapping at these points would soon be worn and cut and give an unsightly appearance. To avoid this I protect the wrapping of cane by washers having their joining faces flat and forming disk-joint bearings, while the faces which join the cane covering are concave, which thereby prevents them from turning when bound hard upon the convex wrapped surfaces by wrought screws or nails riveted upon outside washers.

As there is more or less movement or flexing of the legs upon their pivot-joint connections when the chair is occupied, it will be seen that the abrading action described is active, both

when the chair is folded and unfolded, and without these concave washers, or their equivalent, it would not be possible to make the rattan binding durable in such a chair. The light frame back *b* is riveted to the upper ends of the front legs; but by reason of the lightness of the turned parts of the chair this rivet-connection would be too weak. I therefore re-enforce the back frame, *b*, with a brace, *g*, nailed to it all around, and, crossing above the rivet-connections *h*, is nailed to the upper portions of the front legs, as shown in Fig. 2, the bent brace ends *g'* serving to relieve the rivet-connections of the back of undue strain.

The ornamentation of the back may be of any suitable design, and, forming an entirety with the front legs, its spring or flexing capacity extends to the pivot-connections of the legs. The lower ends of the back are braced to the front legs above the pivot-connections by the short braces *i;* but they do not afford the desired strength and stiffness to that part of the chair-frame below the back rivet-connections *h*, and I therefore connect the lower ends of the back-frame to the front legs by means of rattan braces *j*, bound to the legs below their pivot-connections.

The legs are suitably braced by rattan at their lower round-connections to stiffen them laterally. The ends of the wood parts are provided with knobs, which serve to retain the rattan wrappings.

In folding the chair the top connecting-round of the rear legs is turned in upon the back.

I do not claim herein the provision of specially-adapted washers for preventing the abrading and cutting of the rattan binding at the pivot-joint connections, as such matter forms the subject of claim in my application referred to.

I claim—

1. In a folding chair consisting of a structure of light turned parts bound and strengthened by rattan, the combination of the back *b*, having the rattan binding-brace *g g'*, the truss-braces *i* and *j*, and the legs *a*, forming a rigid frame, substantially as described, with the rear pivoted legs, *c*, the said truss-braces being connected, respectively, to the front legs above and below the pivot-connections, substantially as described, for the purpose specified.

2. In a folding chair consisting of light-turned parts bound and strengthened by rattan, a truss formed of each of the front legs, consisting of the braces *i* and *j* and the bent back *b*, in combination with the rattan brace *g*, nailed to the said bent back and to the upper ends of the front legs, and the rear pivoted legs, substantially as described, for the purpose specified.

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

ISAAC N. DANN.

Witnesses:
FRANCIS F. PREUDHOMME,
G. SUMNER CAMMACK.