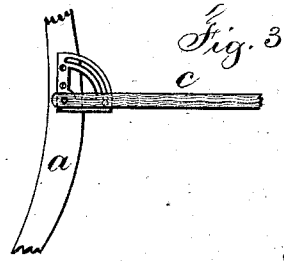
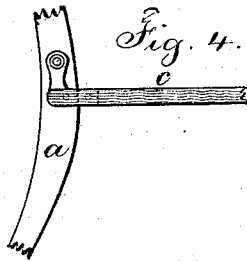
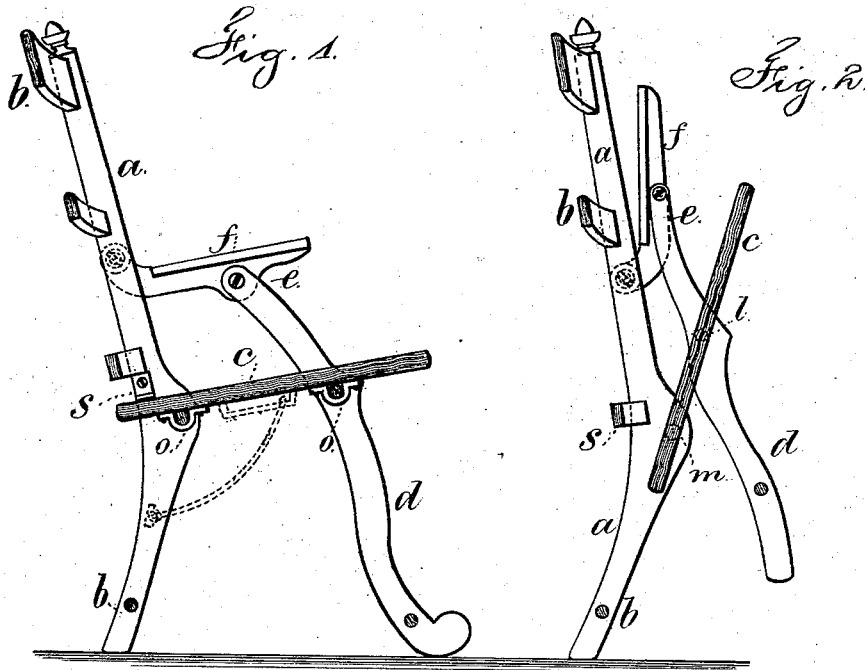


E. W. VAILL.
FOLDING-CHAIR.

No. 187,787.

Patented Feb. 27, 1877.



Witnesses,

Char. H. Smith
Geo. T. Finckney

Inventor

Edward W. Vaill
per Lemuel W. Snell
att'y

UNITED STATES PATENT OFFICE.

EDWARD W. VAILL, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN FOLDING CHAIRS.

Specification forming part of Letters Patent No. 187,787, dated February 27, 1877; application filed April 24, 1875.

To all whom it may concern :

Be it known that I, EDWARD W. VAILL, of Worcester, in the county of Worcester and State of Massachusetts, have invented an Improvement in Folding Chairs, of which the following is a specification :

The present invention relates to that class of chairs in which the back and back legs form one frame, and a rigid seat or seat-frame is jointed to the back frame, and there are folding front legs; and this invention is an improvement on that for which Letters Patent No. 40,526 were granted to Albert D. Whitmore, November 3, 1863.

The front legs are continued above the seat and inclined backward toward the chair-back in order that the arm-pieces extending from the upper ends of the legs to the back may be short, and form, with the upper ends of the front legs, braces between the back and seat, to give rigidity to the chair and prevent it folding or changing its shape when in use.

In the drawing, Figure 1 is a vertical section of the chair, as unfolded for use, and Fig. 2 is a similar section, but with the chair nearly folded.

The back frame is made of the side pieces *a a*, that also form the back legs, and these are connected by rails or stretchers *b*, and the entire back frame may be made more or less ornamental.

The seat *c* is made rigid, or of a rigid frame, It will generally be upholstered, caned, or otherwise prepared for use. The front legs *d d* extend above the seat, and they also incline toward the back. They are united by joints or hinges, at their upper ends *e*, to the arm-pieces *f*, and these in turn are jointed to the back *a*, and these legs and arms may be more or less ornamental, and there may be rungs or stretchers uniting the lower portions of the front legs. The seat or seat-frame *c* is hinged to both the back frame and to the front legs. The hinges may be made by pivot pins or screws or bolts passing through the respective parts, as at *l m*, Fig. 2, or there may be rungs or stretchers between the respective legs, and metal loops *o* passed around them and screwed to the under side of the seat, as seen in Fig. 1. The parts are proportioned so that the seat

will fold up against the back, the arms fold up at the sides of the back frame, and the front legs close against and parallel with the back frame, or nearly so, in order that the chair may occupy but little room when folded.

To prevent the chair swinging or rocking backward or forward when in use, by turning upon the respective joints, I make use of stops, which may be upon the back, as at *s*, against which the back portions of the seat or seat-frame come in contact when the chair is unfolded for use, as in Fig. 1, or such stops may be the cross-bar at the bottom portion of the back, as seen in Fig. 2, or a diagonal brace or braces may be employed, extending from the back legs to the seat-frame, as in the aforesaid patent of Whitmore, and as shown by dotted lines in Fig. 1. If desired, there may be slotted sectors or quadrants of metal attached to the back at its union with the seat, in which slots pins move as the seat swings, as illustrated in the detached view, Fig. 3, or the metal suspending-links shown in Fig. 4 may be used, so as to allow the seat to swing out from the back as it is folded. This chair is very strong, durable, and can be made up in many styles, and more or less elaborate and handsome.

I am aware that a folding chair has been made with front legs extending above the seat, and arm-pieces hinged at their ends to the back and the upper ends of the front legs, as in Letters Patent No. 82,755. In this case the parts are not braced, as the joints are in line, or nearly so, with each other both horizontally and vertically.

I claim as my invention—

The front legs *d d* of the folding chair specified, connected, by joints, to the seat-frame, and extending above the seat at an inclination toward the chair-back, and united, by the hinged arm-pieces *f*, to such back, and forming braces between the respective parts, substantially as set forth.

Signed by me this 17th day of April, 1875.

E. W. VAILL.

Witnesses:

O. S. GORDON,
A. B. DUNBAR.