

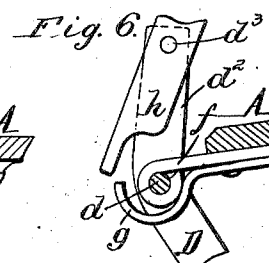
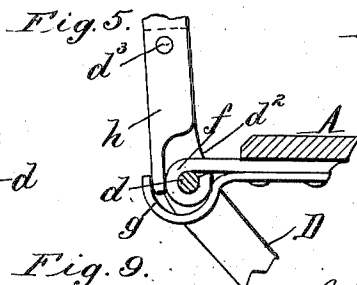
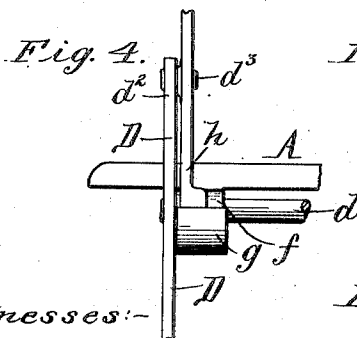
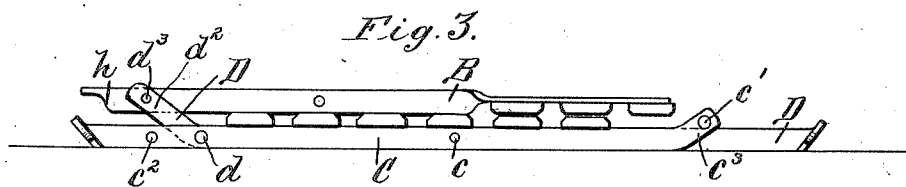
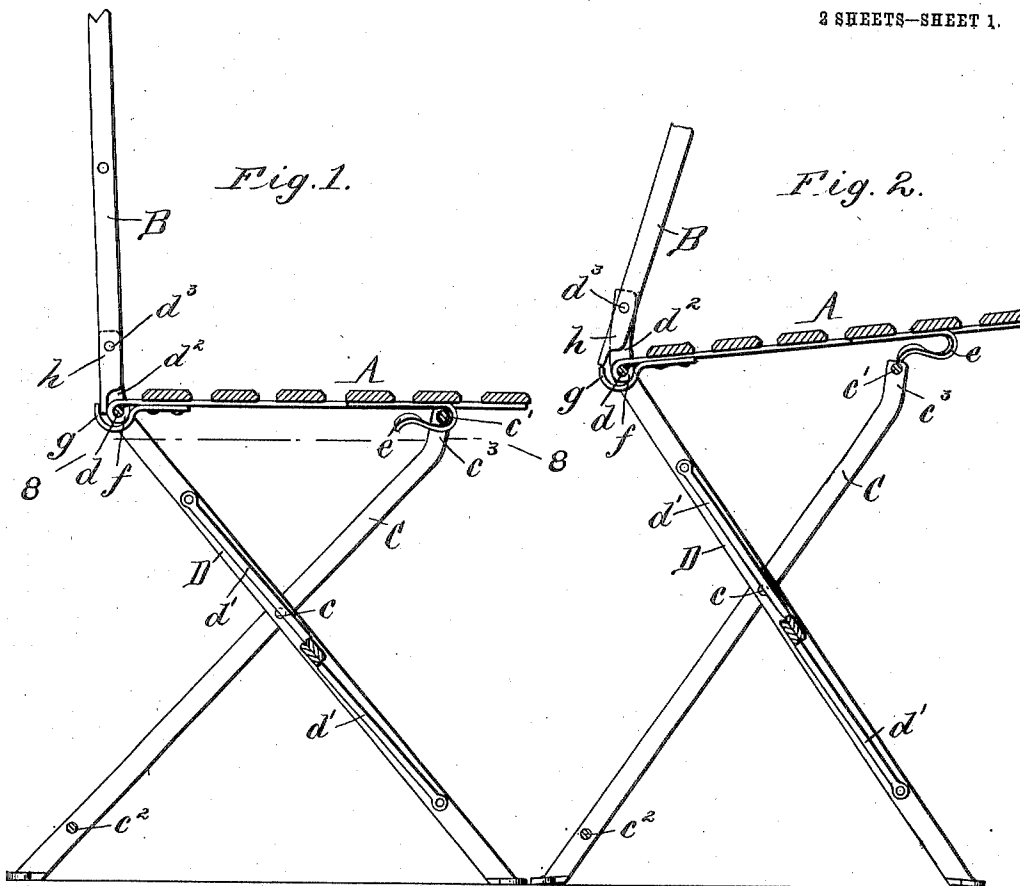
No. 816,853.

PATENTED APR. 3, 1906.

J. E. EISELE.
FOLDING CHAIR.

APPLICATION FILED MAR. 13, 1905.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 7.

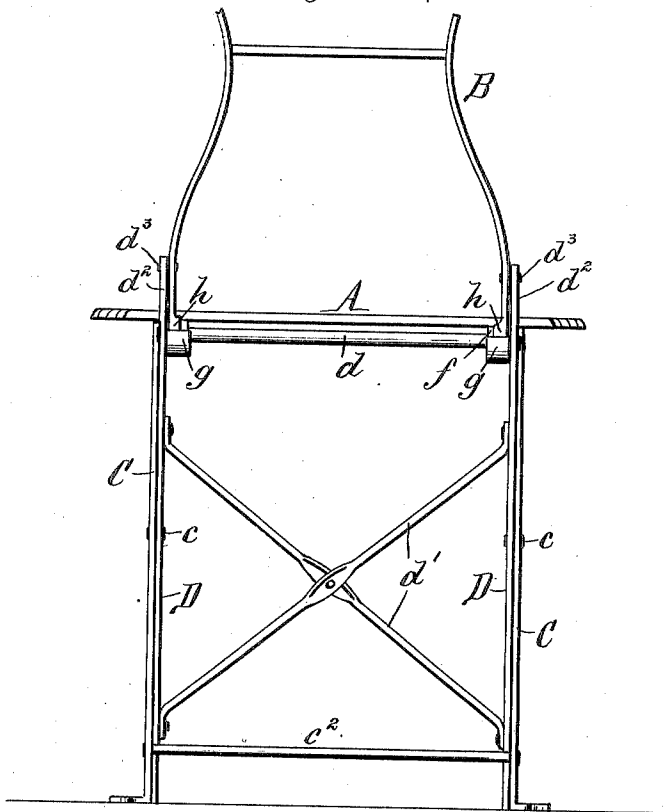
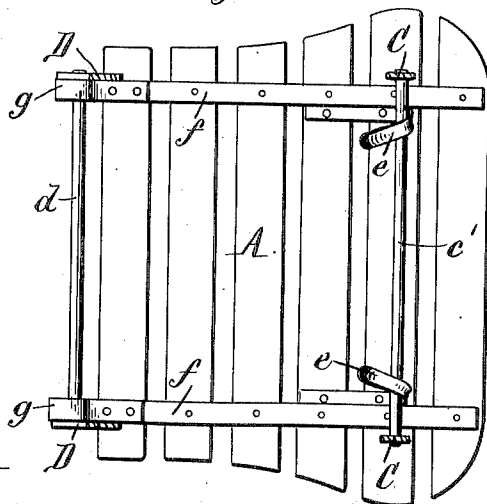


Fig. 8.



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UNITED STATES PATENT OFFICE.

JOHN E. EISELE, OF WEST SENECA, NEW YORK.

FOLDING CHAIR.

No. 816,863.

Specification of Letters Patent.

Patented April 3, 1906.

Application filed March 13, 1905. Serial No. 248 711.

To all whom it may concern:

Be it known that I, JOHN E. EISELE, a citizen of the United States, residing at West Seneca, in the county of Erie and State of New York, have invented a new and useful Improvement in Folding Chairs, of which the following is a specification.

This invention relates to that class of folding chairs which comprise folding legs, a pivoted or hinged seat, and a pivoted or hinged back; and its object is to provide a folding chair of this kind which will occupy a minimum space when folded and which when in position for use will be rigid and have all its parts securely held in place.

Folding chairs often have the fault of being too easily collapsible, thus preventing their being readily moved about when open and rendering them more or less unsafe in use.

This invention provides interlocking devices which secure the seat, legs, and back firmly in position when open and at the same time permit ready disengagement thereof when desired.

In the accompanying drawings, consisting of two sheets, Figure 1 is a vertical longitudinal section through the center of a folding chair containing this improvement, showing the parts locked in position for use and the upper part of the back broken away. Fig. 2 is a similar view with the locking devices released. Fig. 3 is a side elevation of the chair when folded. Fig. 4 is a rear elevation, on an enlarged scale, of the joint and locking or clamping devices securing the back and the seat in position for use. Fig. 5 is a side elevation of the same. Fig. 6 is a similar view showing the back released from the locking device. Fig. 7 is a fragmentary rear elevation of the chair. Fig. 8 is a sectional bottom plan view of the seat in line 8 8, Fig. 1. Fig. 9 is a side view of a modified form of the locking device.

Like letters of reference refer to like parts in the several figures.

A represents the seat, B the back, C the outer legs, and D the inner legs, of the chair. The outer legs C are arranged on the outer sides of the inner legs D and extend from the front of the seat downwardly and rearwardly, while the inner legs D extend from the rear of the seat downwardly and forwardly. Each outer leg C is connected to the adjacent inner leg D at the point of intersection by a trans-

verse pivot *c*, so that the legs can be opened or closed.

The two outer legs C are rigidly connected by an upper cross-rod *c'*, upon which the seat rests at the front, and by a bottom cross-rod *c''*. The two inner legs D are rigidly connected by an upper cross-rod *d*, supporting the seat at the rear, and two diagonal braces *d'*. The upper portions *c''* of the outer legs C, in which the front cross-rod *c'* is secured, are bent or offset so as to stand in an upright position, or nearly so, while the body or main portion of the leg is oblique, whereby this cross-rod is held above the main portion of the legs C when the chair is folded, as shown in Fig. 3. The inner legs D, which are also oblique, are provided at their upper ends with arms *d''*, which stand in an upright position, or nearly so, and between which the back is pivoted by transverse pivots *d''*. The upper front cross-rod *c'* of the legs C is situated as near the end of the legs as practical and is adapted to detachably engage downwardly-projecting hooks *e*, secured to the under side of the seat A and opening rearwardly. These hooks are preferably placed at a sufficient distance apart to engage the rod *c'* near the inner sides of the legs C. They are bent upwardly in their end portions so that the rod *c'* cannot be too readily disengaged therefrom, and their end portions are preferably somewhat elastic. They thus hold the legs C detachably in position with the forward end of the seat.

The rear end of the seat A is hinged to the upper rear cross-rod *d* by means of the hinge-straps, knuckles, or sockets *f*, secured to the seat and embracing the rod adjacent to the inner legs D.

The seat may be of any desirable form or construction; but in order that the chair should fold as closely as possible it is so made that its supporting-frame is sufficiently narrow to enter between the inner legs D in folding the chair.

In order to secure the seat and back rigidly in position for use, the back is provided with downwardly - projecting stop - arms, which are caught by locking or clamping jaws arranged on the pivoted or hinged end of the seat, so that as the seat approaches its normal position these locking or clamping jaws engage the stop-arms of the back and lock the same tightly in position.

g represents the locking or clamping hooks

or jaws arranged on the seat adjacent to the hinge-sockets or hinged legs. These jaws may be made in various ways—for instance, separate from the hinge-knuckles and secured thereto, as shown in Figs. 1, 2, 5, and 6, or in one piece with the sockets, as shown in Fig. 9.

h represents the stop-arms of the back which extend downwardly from the pivot-line of the back, so as to swing at their lower ends toward and from the rear sides of the hinge-sockets f of the seat. As the back is swung backwardly in opening the chair the lower ends of the stop-arms h are swung forwardly until they strike the hinge-sockets. The latter arrest the forward movement of the stop-arms and the rearward movement of the back. As the seat is swung into its normal position the locking hooks or jaws g engage against the rear sides of the stop-arms h , so that when the chair has been unfolded, as represented in Figs. 1 and 5, the stop-arms engage against the rear sides of the hinge-sockets and the jaws against the rear sides of the stop-arms, whereby the back is rigidly held in its unfolded position against movement in either direction. The stop-arms have preferably reduced lower ends which enter the spaces between the hinge-sockets and the jaws, and these spaces are preferably made tapering downwardly to draw the stop-arms tightly against the sockets or other front supports as the seat is swung into its normal position.

The above-described devices, comprising the hinge-sockets or front supports, the locking-jaws, and the stop-arms of the back, secure the back, the rear end of the seat, and the inner or rear legs rigidly in position in a very simple and satisfactory manner.

The forward end of the seat A and the outer legs C are held together by the hooks e , engaging the cross-rod c' . All the parts of the chair are thus held securely locked in position, and the chair may be moved about freely without any tendency to fold.

When it is desired to fold the chair, the back is held firmly and the seat lifted toward it. This releases the cross-bar c' from the hooks e and at the same time moves the clamping-hooks g downwardly, so that they free the stop-arms h of the back. The back is then moved slightly forward in order that the stop-arms h will clear the locking-jaws, as shown in Figs. 2 and 6. The chair is now in a position for folding and may close of its own weight. When folded, the inner legs D fit within the outer legs C and fold into the same plane therewith. The cross-rod c' by reason of the upward bend of the adjacent portions c^3 of the legs C rests upon the inner legs D , Fig. 3. The frame of the seat A fits within the inner legs D and the slats of the seat extend across and rest upon these legs

and the outer legs C . The upright top portions d^2 of the inner legs D hold the back B above the plane of the seat A , so that the back rests upon the latter and lies parallel with and adjacent to said seat. The chair, therefore, has when folded only the thickness of the outer legs, the slats of the seat, and the back and occupies the minimum space, which is a great advantage in transportation and storage.

I claim as my invention—

1. In a folding chair, the combination of legs, a seat pivoted to the same, a back pivoted at its lower end to the legs above the pivot-line of the seat and provided with a stop-arm which projects downwardly from the pivot-line of the back and swings toward and from the pivot of the seat, a stop on the pivot of the seat which arrests the forward movement of the stop-arm, and a locking-jaw arranged on the seat and engaging against the rear side of the stop-arm when the latter rests against said stop, substantially as set forth.

2. In a folding chair, the combination of legs, a seat pivoted to the same, a back pivoted to the legs above the pivot-line of the seat and provided with a stop-arm which projects downwardly from the pivot-line of the back and has its lower end arranged in rear of the pivot-line of the seat, a hinge-knuckle on the seat, connecting the seat with the legs and forming a stop which arrests the forward movement of the stop-arm and the rearward movement of the back, and a locking-jaw on the seat which engages against the rear side of the stop-arm when the latter bears against said knuckle, substantially as set forth.

3. A folding chair comprising two pairs of oblique folding legs, the rear pair having upright top extensions, a back pivoted at its lower end between the upper ends of said top extensions, and a seat pivoted at the lower ends of said top extensions, both the back and seat being arranged to swing downwardly in folding the chair, substantially as set forth.

4. A folding chair comprising a pair of oblique inner legs provided with upright top portions, a pair of oblique outer legs pivoted to said inner legs, a seat pivoted at its rear end between the inner legs at the lower ends of their upright top portions, and a back pivoted at its lower end between the inner legs at the upper ends of their upright top portions, the back and the seat being arranged to swing downwardly in folding the chair, substantially as set forth.

Witness my hand this 9th day of March, 1905.

JOHN E. EISELE.

Witnesses:

C. B. HORNBECK,
C. M. LAMB.