J. RICHARDSON.

FÔLDING CHAIR.

No. 192,284. Patented June 19, 1877.

Fig. 1.

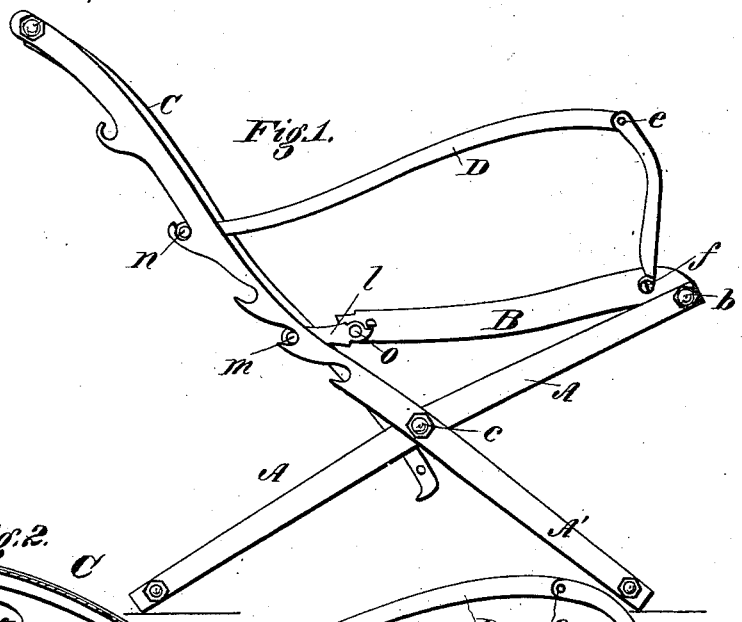


Fig. 2.

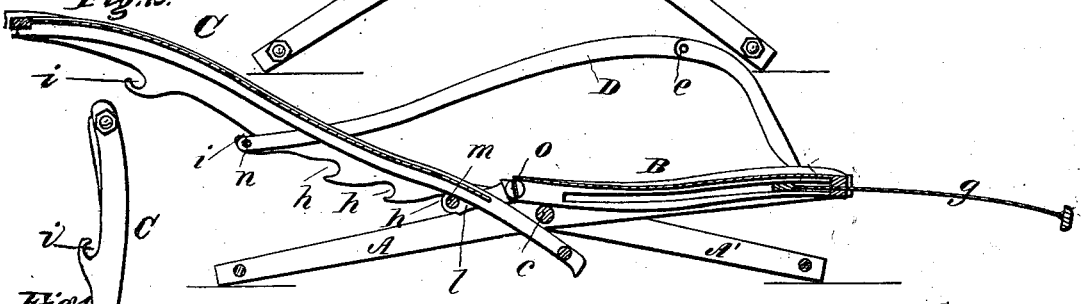


Fig. 4.

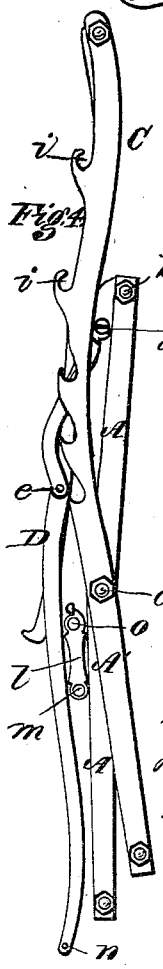


Fig. 3.

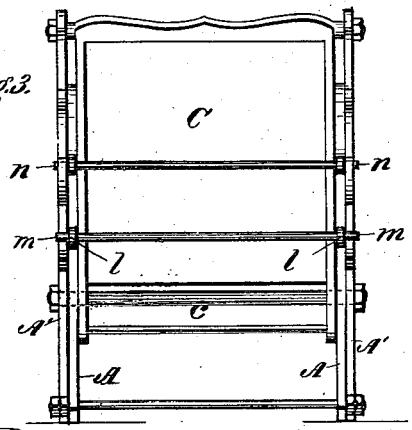
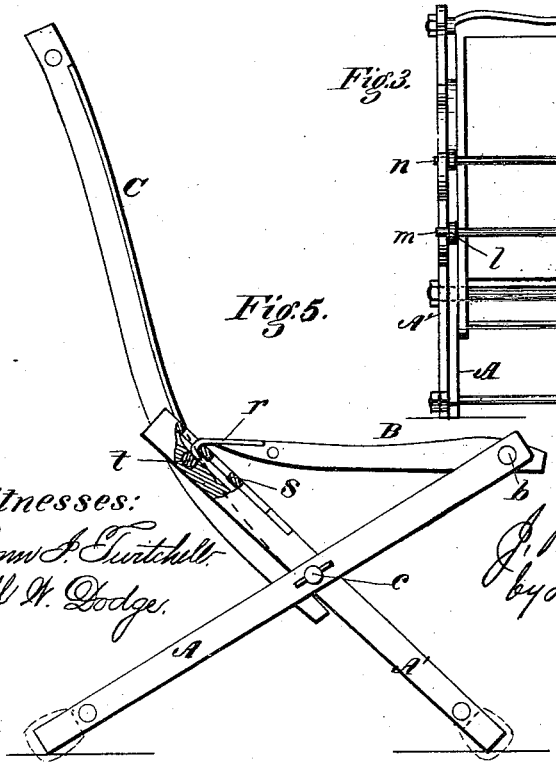


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN RICHARDSON, OF NEW YORK, N. Y.

IMPROVEMENT IN FOLDING CHAIRS.

Specification forming part of Letters Patent No. **192,284**, dated June 19, 1877; application filed May 26, 1877.

To all whom it may concern:

Be it known that I, JOHN RICHARDSON, of New York, in the county of New York and State of New York, have invented certain Improvements in Folding Chairs, of which the following is a specification:

My invention consists in an improved construction of folding chairs, whereby they may be placed and held in any desired position, or folded compactly for transportation or storage, as hereinafter more fully explained.

In the drawings, Figure 1 represents a side elevation of my improved chair in its ordinary position for use; Fig. 2, a longitudinal section of the same extended to form a reclining-chair; Fig. 3, a back view of the chair; Fig. 4, a view of the same folded for storage or transportation; and Fig. 5, a side elevation, partly in section, showing a modified form of my improved chair.

In constructing this chair I provide two pairs of legs or supports, A and A′, which are crossed and pivoted on a common cross-bar, C, in the usual manner, the legs A′ being carried upward, as shown in Figs. 1, 2, 3, and 4, to form the back-frame C or support for the same. The seat B, which is either made of some rigid material or provided with a rigid frame, is hinged or pivoted, at or near its front edge, to the upper ends of the legs A, as shown at *b*, and is provided at its rear with two links, *l*, one at each side, which are pivoted to the seat, as shown at *o*. These links *l* are connected by a cross-rod, *m*, the ends of which rod extend a short distance beyond the links, as shown in Fig. 3. On the rear of the back-frame or upper portion of the legs or supports A′ is a rack, which contains two series of notches, *h* and *i*, the notches *h* being to receive the projecting ends of the cross-rod *m*, as shown in Figs. 1, 2, and 3. It will readily be seen that by placing the ends of the rod *m* in a higher or lower notch the upper and lower ends of the legs or supports A and A′ are drawn together or thrown apart, thus elevating or lowering the seat, while the natural tendency of the legs or supports to spread apart holds the ends of the rod *m* firmly in the notches *h*, any additional weight placed upon the seat or back tending to hold them more securely in place.

Attached to the seat at each side, near its front edge, is an arm, D, said arms being provided at their bend with a hinge-joint, *e*, as shown in Figs. 1, 2, and 3, to allow them to be straightened out for the purpose of folding the chair more compactly than could otherwise be done. These arms D are connected at their rear ends by a cross-rod, *n*, the ends of which extend a short distance beyond the arms D, in the same manner as the ends of the rod *m* extend beyond the links *l*, and as clearly shown in Fig. 3. These projecting ends of the rod *n* engage in the notches *i*, which, as shown, are made considerably deeper than the notches *h*, the rear face of the notches being curved forward at the top, so as to engage over the ends of the rod *n* and prevent its accidental displacement. This construction is rendered necessary by the fact that any pressure downward on the arms would naturally tend to shove the ends of the rods directly backward out of the notches *i* when made in the form of the notches *h*. The back is in this case shown as made separate from the upper ends of the legs or supports A′, and hinged between them at its upper end, the lower end being held from swinging back by the rod *m*. This arrangement causes the back to be held close to the rear edge of the seat in all positions in which the chair is used, and enables the chair to be more compactly folded.

By hinging the links *l* to the seat a considerable movement of the legs and back is permitted without danger of the ends of the rod *m* becoming detached or removed from the notches or rack *h*, while at the same time it allows the rear of the seat to swing down close against the back. In order to convert the chair into a reclining-chair, I provide the seat with a slide, *g*, arranged to pass into or under the same, and capable of being drawn out, as shown in Fig. 2, thus considerably lengthening the chair. By placing the ends of the rods *m* and *n* in their lowest respective notches, and drawing out the slide *g*, it will be seen that a very comfortable and convenient reclining-chair is formed quickly and easily.

It is obvious that the back C may be rigidly attached to or made with the upper portion of the legs A′, if preferred; but the form shown is thought to make a more perfect device.

In Fig. 5 is shown a modified form of my improved chair, in which the back C is made entirely separate from the legs, and the method of locking the chair is somewhat altered. In the chair, as there represented, are two pairs of legs or supports, A and A′, pivoted on a common rod or cross-bar, *c*, as in the other, the rack on the back of the legs A′ being omitted, and a notched or perforated plate, *s*, being placed on the front side thereof instead. The seat B is pivoted to the legs A at or near its front edge, as before, and provided at its rear with two rigid hooks, *r*, one at each side, which engage in the recesses or notches of the plate *s*, and hold the parts firmly in place. The back C is pivoted to a cross-bar, *t*, which extends across between the upper ends of the legs A′, and which serves to hold the chair together. The sides of the back-frame are extended downward, as shown in Fig. 5, a sufficient distance to bear against the cross-bar C, and thus prevent the back from falling over backward.

It is apparent that arms may be attached to a chair of this construction, or that they may be omitted from the chair represented in Fig. 1.

It is likewise obvious that these methods of locking the chair in different positions may be used for camp-stools having no backs.

In practice I prefer to make the rack separate and attach it to the chair by means of screws, bolts, or other devices, and also the plate *s*.

This construction enable me to make a very complete and efficient chair, not liable to become unlocked accidentally, capable of a wide range of adjustments, and cheap to manufacture, and very convenient for transportation and storage.

I am aware that chairs have before been made in which the seat is hinged at its rear edge, and also with seats made adjustable in various ways, and also that chairs have before been provided with adjustable and detachable leg and foot rests, and with hinged and adjustable arms, and, therefore, I do not claim any of these features, broadly; but

What I do claim is—

1. A folding chair consisting of the pivoted cross-legs A and A′, with the seat B pivoted to the legs at its front edge, and provided at its rear edge with the hooks *r*, arranged to engage with the plates *s*, or the equivalent adjusting devices shown in Fig. 1, all constructed and arranged to operate as set forth.

2. In combination with the folding legs and seat, arranged as described, the hinged arms D, connected by the cross-rod *n*, arranged to engage in the notches or hooks *i* upon the back, substantially as shown and described.

3. The combination of the pivoted legs A and A′, hinged adjustable seat B, and the sliding leg-rest *g*, all constructed and arranged to operate substantially as set forth, whereby the chair can be converted into a couch, and also be folded up at will, as herein described.

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