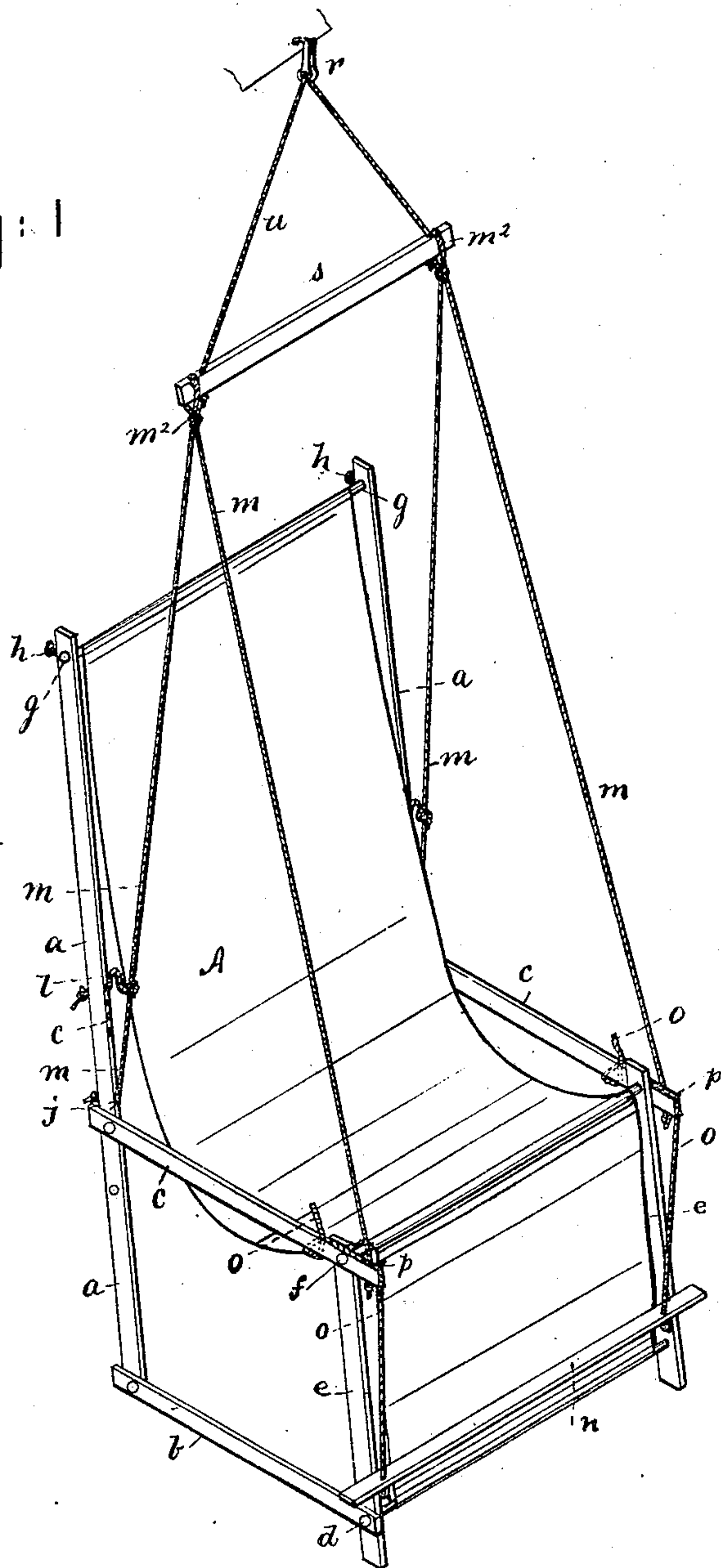


(No Model.)

2 Sheets—Sheet 1.

S. R. ROBINSON.  
Convertible Chair and Hammock.  
No. 236,630. Patented Jan. 11, 1881.

Fig: 1



Witnesses.

Arthur Reynolds  
L. F. Connor.

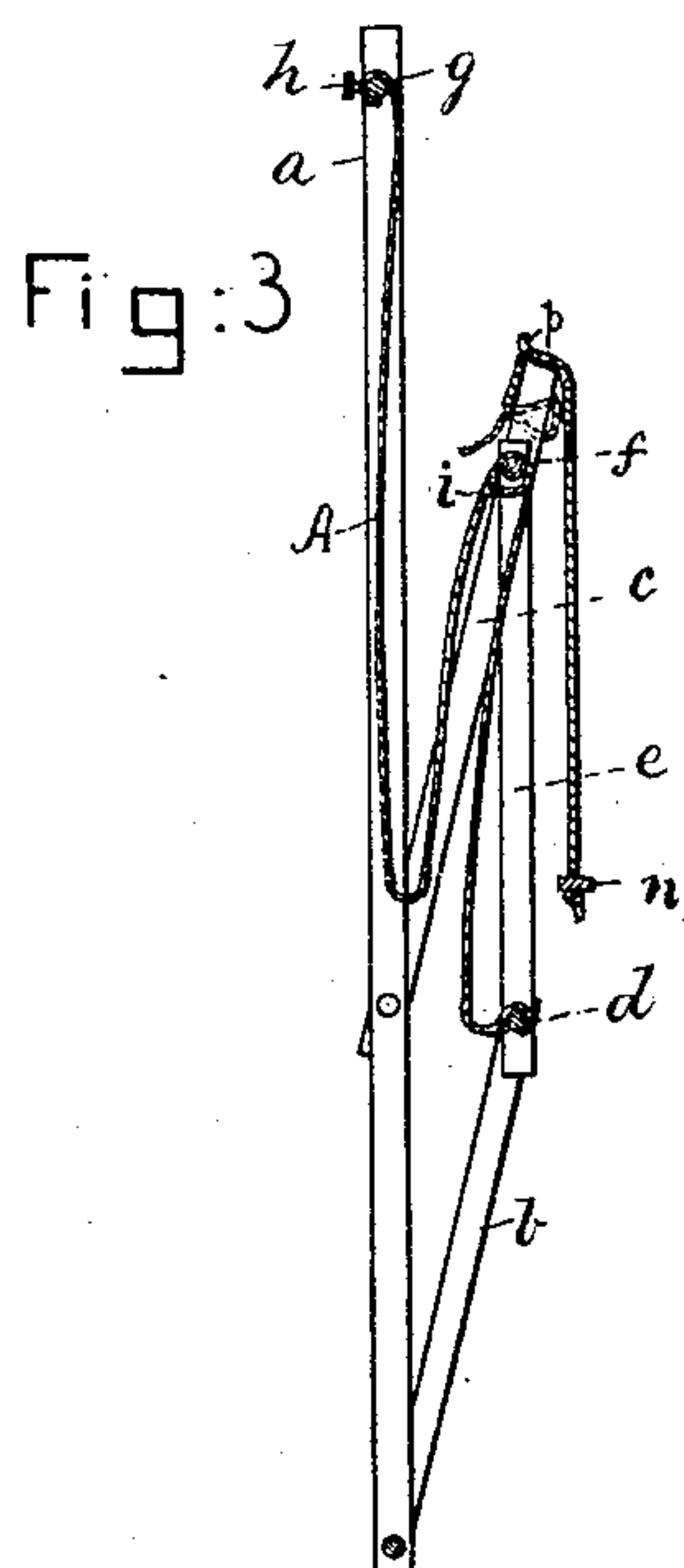
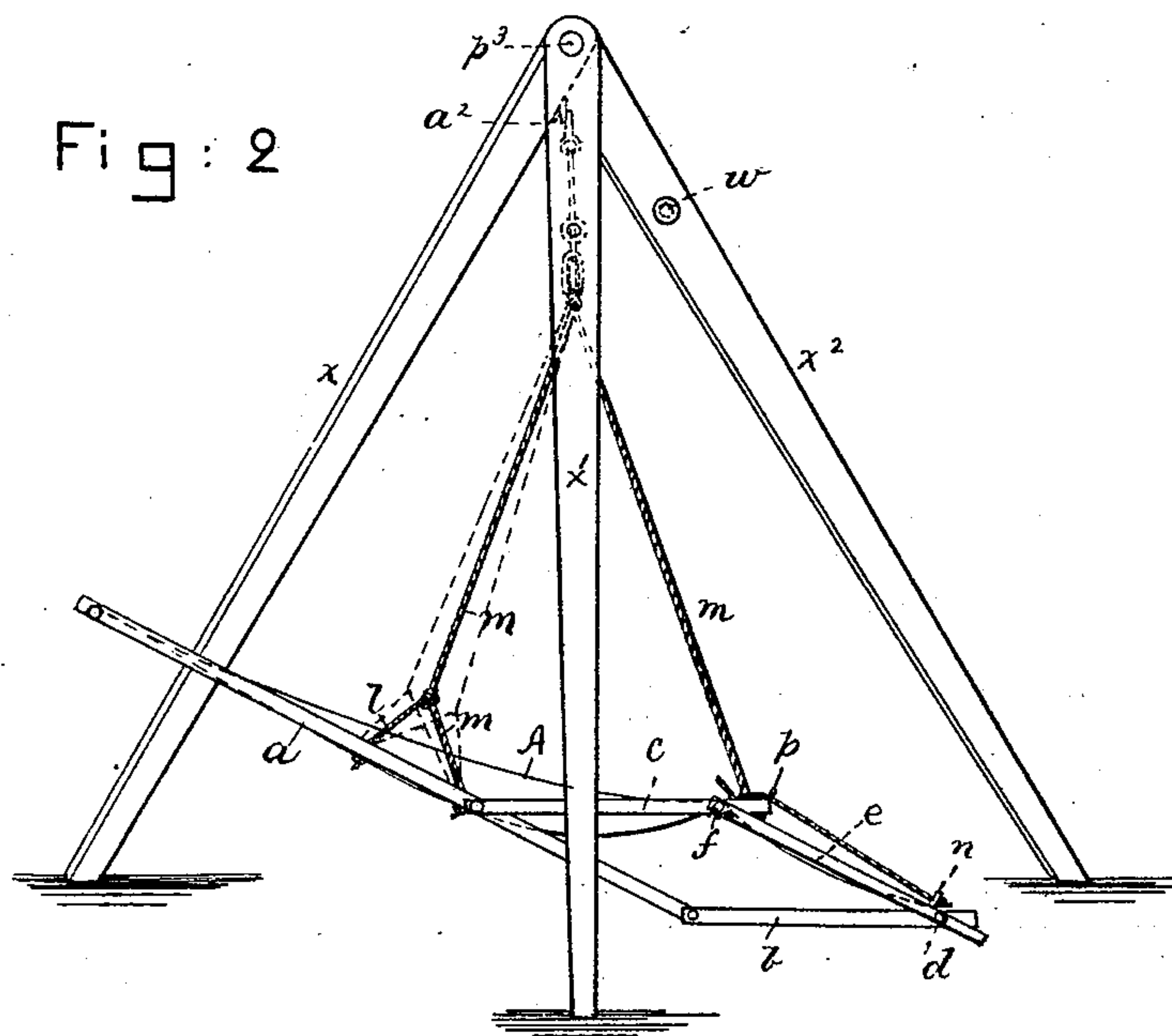
Inventor.

Samuel R. Robinson  
by Crosby & Gregory Attys

(No Model.)

2 Sheets—Sheet 2.

S. R. ROBINSON.  
Convertible Chair and Hammock.  
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Witnesses.  
*L. H. Connor*  
*Arthur Reynolds*

Inventor.  
*Samuel R. Robinson*  
by *Crosby & Gregory* Atty's



# UNITED STATES PATENT OFFICE.

SAMUEL R. ROBINSON, OF ANTRIM, NEW HAMPSHIRE.

## CONVERTIBLE CHAIR AND HAMMOCK.

SPECIFICATION forming part of Letters Patent No. 236,630, dated January 11, 1881.

Application filed October 4, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL R. ROBINSON, of Antrim, county of Hillsborough, State of New Hampshire, have invented a new and useful Improvement in Convertible Chair and Hammock, of which the following description, in connection with the accompanying drawings, is a specification.

My invention has for its object the production of a combined chair and hammock, and, as constructed, the chair may be also used for a swing.

The frame-work of my combined chair and hammock is composed, essentially, of a number of jointed links or bars and legs and suitable cross-rounds or seat-supports, upon which is placed a length or section of textile material, such as heavy duck or canvas. The foot-rest is not connected rigidly with the frame-work of the chair, but is sustained by a flexible connection, such as a cord or rope, the said flexible connection being supported eccentrically to the center, about which the front part of the chair turns when the seat is being brought into horizontal position to serve as a hammock, such connection allowing the foot-rest (the feet of the person in the chair resting upon it) to be moved independently of the movement of the lower end of the chair. The flexible connection of the said foot-rest, as the apparatus is changed from its upright or chair position to its horizontal or hammock position, assumes a more nearly straight line, such straightening of the flexible connection practically increasing the distance of the foot-rest from the center, about which the lower part of the chair turns, thus, as it were, lowering the foot-rest as the legs of the occupant of the chair are straightened, and obviating the tendency to push the body of the person longitudinally on the seat.

Figure 1 represents my improved apparatus in position to be used as a chair or swing, it being supposed to be employed within a building or hung in a doorway. Fig. 2 represents the apparatus supported upon a tripod such as I prefer to use, especially when the apparatus is to be employed out of doors, the parts being extended as for a hammock; and Fig. 3 represents the apparatus in section folded together.

*a a* represent two long bars, which I shall denominate "back-bars," there being one at each side of the apparatus. With each one of these back-bars is jointed two links, *b*, and arm-links *c*. The outer ends of the links *b* (one at each side of the apparatus) are connected, by the cross-round *d*, with one of the leg-bars *e*. The upper end of each leg-bar is loosely pivoted upon a round or cross-bar, *f*, the said round at its ends also serving to connect the links *c* with the leg-bars, the ends of the round entering the arm-links a short distance back from their front ends. The upper ends of the back-bars are connected together by a round or bar, *g*, preferably so held therein as to be revolved, suitable thumb or set screws, *h*, being employed to secure it in position. The upper end of the sack-bottom *A* is connected with this round or cross-bar *g*, and its lower end with the round or cross-bar *d*, and between its ends the said sack-bottom is supported upon the rod or round *f*, it being secured thereto, as by tacks. The sack-bottom may be adjusted as to its length by turning the round *g*, and where it rests upon the round *f* it will preferably have connected with its under sides loops *i*, (see Fig. 3,) to embrace the said round.

The back-bars are provided with a series of holes, *c*, and one of them receives a piece of rope, *l*, which is connected with a long rope or cord, *m*. One end of each rope *m* is connected with one of the back-bars *a*, substantially at the junction of the back-bars and links *c*, and its other end is connected with the front end of the arm *c*, the said rope *m*, between its two ends, having made in it a suitable loop, *m*<sup>2</sup>, by which to support or suspend the chair on a brace, *s*, held by a rope, *u*, provided with a hook, *r*, to engage a door-frame or beam, or to engage a hook or studs on a tripod to be described.

By moving the junction-point of the ropes *l* *m*, or by changing the point at which one or the other of the said ropes is connected with the back-bar, the line of action of the supporting force, which coincides with the direction of the rope *m* from its junction-point with the rope *l* to its supporting-loop, will be varied relative to the junction-point of the bars *a* and *c*, as will be understood by referring to the dotted lines, Fig. 2, so that in this manner the posi-



tion of the support may be varied with the relation to the center of gravity of the weight of the occupant, the position of which varies with the size of the occupant. The apparatus is thus always balanced in all positions of the back-bars, both when the apparatus is used as a chair and as a hammock.

The foot-rest *n* is suspended by the flexible connections or ropes *o*, supported at the extreme front ends of the bars *c*, with which they are adjustably attached in any suitable manner, in order to permit the foot-rest to be raised or lowered, to adapt it to the length of the leg of the person using the apparatus. These flexible connections will be passed through suitable eyes, *p*, at the outer ends of the arm-link *e*. Viewing one of these flexible connections, (see Fig. 1,) it will be seen that it has in it quite an abrupt bend, and that the foot-rest in such position is nearer the center of motion of the arm-link *e* and leg-bar *c* on the round *f* than when the apparatus is extended for a hammock, as in Fig. 2.

An inspection of Fig. 2 will show the flexible connection *o* substantially straight, in which condition the foot-rest occupies a position farther from the round *f* than in Fig. 1. This method of supporting the foot-rest is very desirable and essential, because by it the connections with the foot-rest are lengthened as the apparatus and the legs of the person occupying it are straightened, thus preventing the body of the person moving horizontally upon that part of the seat *A* between the round *f* *g* when the seat is being straightened.

The tripod (see Fig. 2) is composed of three legs, *x x' x''*, pivoted at *p*<sup>3</sup>, so that they may be spread, as in the drawings, or be folded together. The tripod will be provided with a suitable eye, *a*<sup>2</sup>, (see Fig. 2,) to receive the hook *r*, which supports the brace *s*, (same as shown in Fig. 1;) or, if desired, two of the said legs may be provided with suitable hooks, *w*, to receive upon them the loops *m*<sup>2</sup> at the upper ends of the ropes *m*. The brace *s*, hook *r*, and cord *u* being then omitted, the said bottom *A*, between the rounds *f* and *d*, serves as a leg-rest.

I am aware that a rigid chair-seat having a

hinged rigid back and a leg-rest has been pivoted between two rigid arms hung from a door-frame, the said back being so connected with the upper end of the bars constituting the leg-rest as that the back, when lowered, will positively swing the leg-rest and its connected foot-rest upward.

In my invention the parts *a b c e*, with their pivots, constitute sort of a parallel-motion or lazy-tongs movement, and the person supported by the sacking *A*, (heavy cotton, linen, or other suitable fabric,) to change from sitting to reclining position, has only to straighten his body more or less, as may be desired, keeping his feet against the foot-rest.

I claim—

1. The sack-bottom *A*, back-bars *a*, leg-bars *e*, connecting-links *b c*, pivoted between them, and rounds or bars *g f d*, combined with the suspension-ropes *l m*, connected with the said back-bars and connecting-links, as set forth, whereby the parts supported by the suspension-ropes are held in balanced position when the back pieces and sack-bottom are in position for a chair and for a hammock, substantially as described.

2. In a swinging chair convertible into a hammock by the horizontal extension of the back-bars and leg-bars of the chair, the foot-rest and its flexible suspension-cords supported as shown and described with relation to the round *f*, which serves as the joint between the arm-links and leg-bars, to permit the foot-rest to move longitudinally in the direction of the length of the leg-bar when the chair is converted into a hammock.

3. The swinging chair convertible into a hammock, and its suspension-ropes provided with loops *m*<sup>2</sup>, combined with the tripod having hooks or projections to support the chair, all substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL R. ROBINSON.

Witnesses:

JOS. P. LIVERMORE,  
BERNICE J. NOYES.