

E. Warren Hastings'

2 Sheets--Sheet 1.

Patented Dec. 19, 1871.

No. 121,941.

Improved

Reclining- and Folding-Chair

Fig. 1.

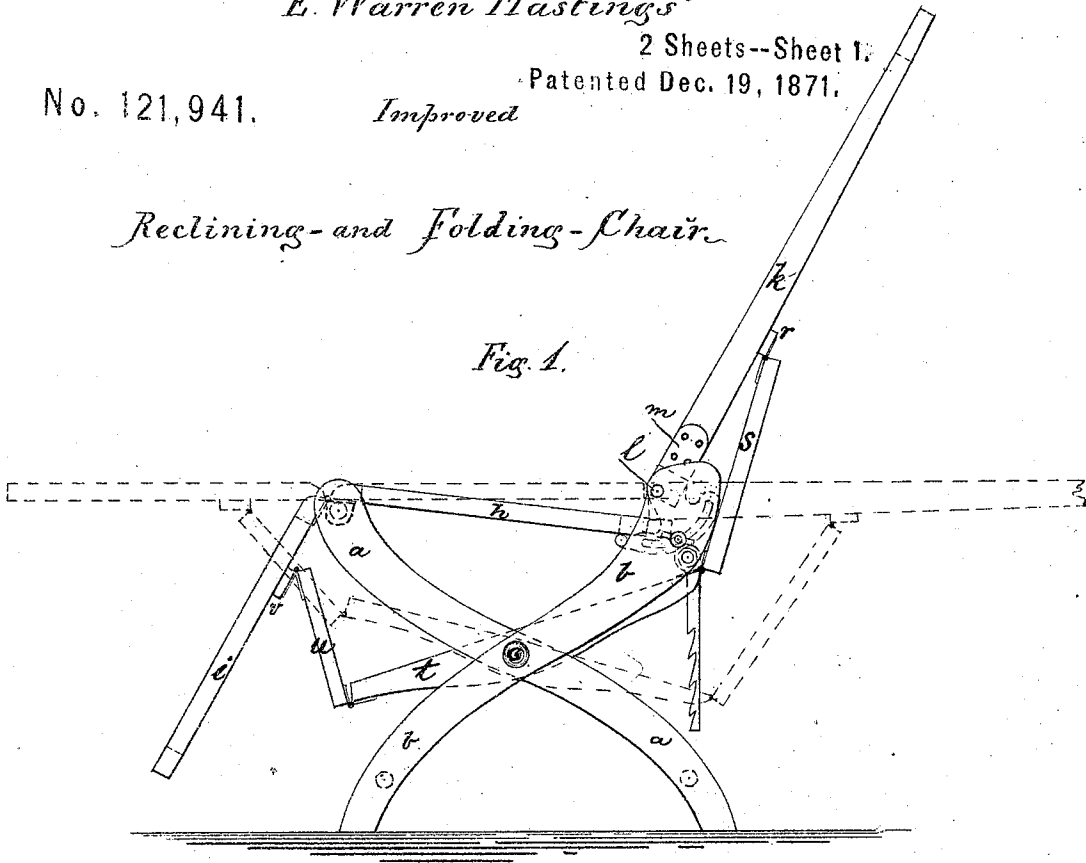
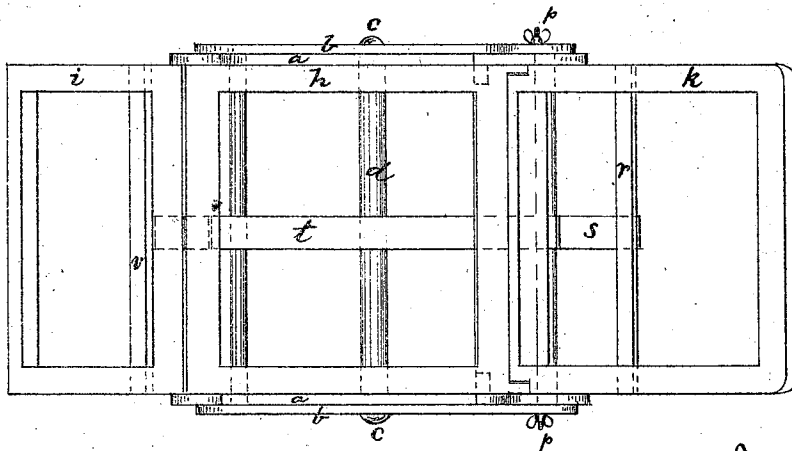


Fig. 2.



Witnesses:

Mauritz Andren
James P. Gardner

Inventor.

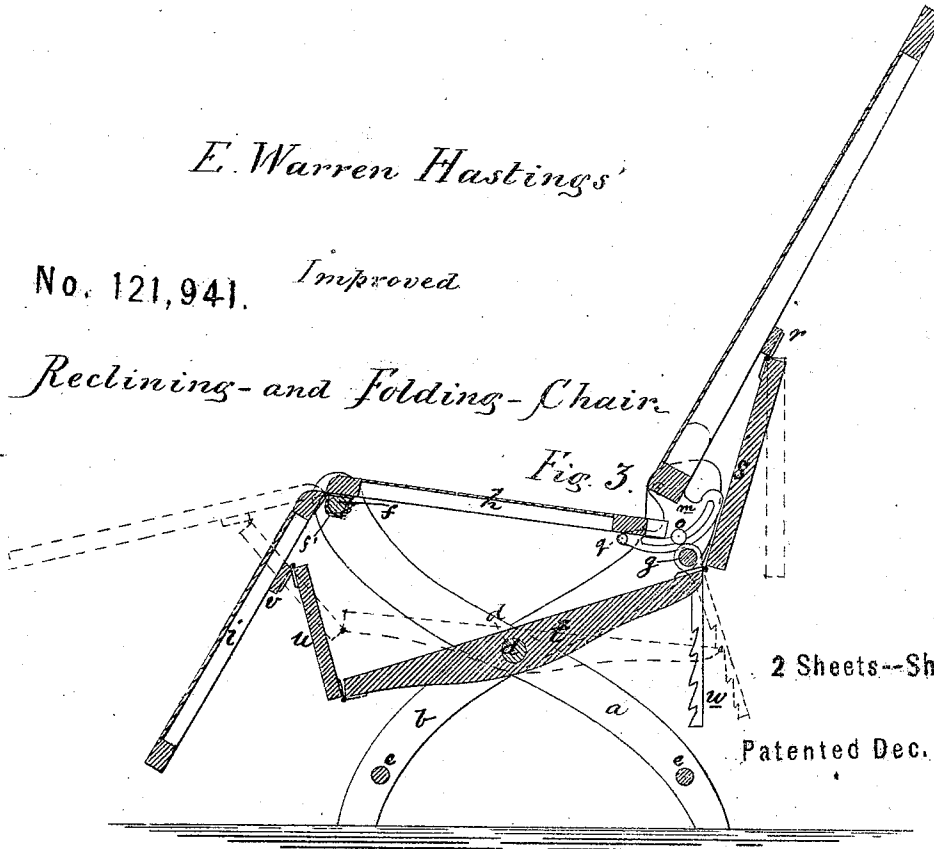
E. Warren Hastings.
by Alban Andren, his attorney

E. Warren Hastings

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2 Sheets--Sheet 2

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Fig. 4.

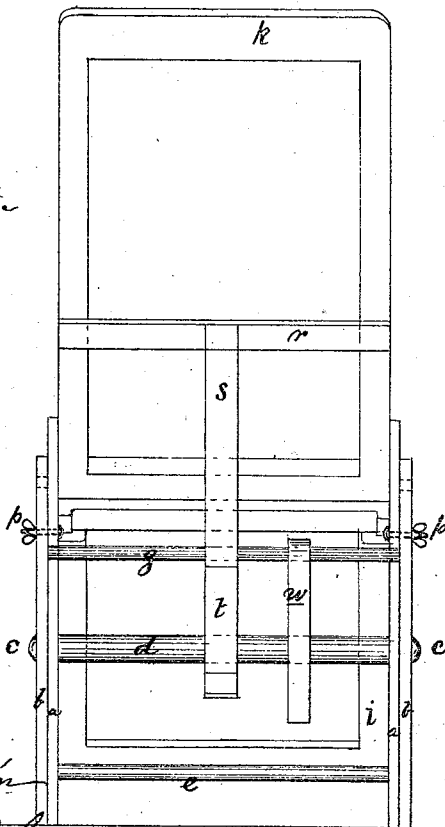


Fig. 5.

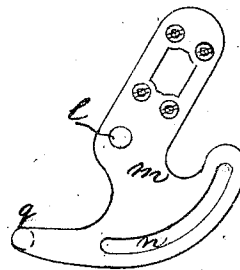


Fig. 6.

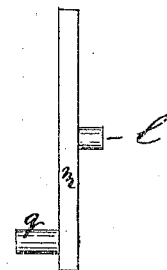
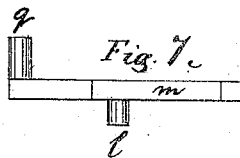


Fig. 7.



Witnesses:

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UNITED STATES PATENT OFFICE.

E. WARREN HASTINGS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN RECLINING AND FOLDING CHAIRS.

Specification forming part of Letters Patent No. 121,941, dated December 19, 1871; antedated December 1, 1871.

To all whom it may concern:

Be it known that I, E. WARREN HASTINGS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new Improvements in Reclining and Folding Chairs, of which the following is a specification:

The nature of my invention relates to improvements on reclining and folding chairs, so arranged that the foot-board and back can be adjusted to any desired position independently of each other, and also that they will act conjointly when desired, and made in such a manner as to be folded together in a small compass when not needed for use.

In the drawing, Figure 1 is a side elevation. Fig. 2 is a ground plan. Fig. 3 is a central longitudinal section. Fig. 4 is a rear view of Fig. 1, and Figs. 5, 6, and 7 exhibit different views of the hinge-plate shown on Fig. 3.

Similar letters refer to similar parts wherever they occur in the drawing.

a a b b are two legs united together and movable around the pin or bolt *c*. Two similar legs are made on the opposite side of the chair in a like manner. A central brace, *d*, connects both sides of the chair, as shown in Fig. 1 and 2. Braces *e e* connect the lower ends of the legs *a a b b*, and similar ones, *f f*, connect the upper ends of said legs. *h* is the seat, being provided with straps *f'* on the under side that surround the brace *f* and by this means keep the seat *h* movable around the brace *f*. The foot-board *i* is hinged onto the forward part of the seat *h* in a manner as shown, by which arrangement the foot-board *i* is made to swing around its upper side. The back *k* is made to swing around the hinge-pin *l*, projecting through the upper ends of legs *b b*. The hinge-pin *l* is made of metal, and connected to (cast or otherwise) the hinge-plate *m*, of which enlarged views are shown in Figs. 5, 6, and 7. The plates *m* are secured to the lower part of two opposite sides of the back *k*, and the projecting hinge-pin *l* is inserted through a hole in the upper end of the legs *b b*, around which the back swings. The hinge-plate *m* is provided with a segmental slot-hole, *n*, as shown in Fig. 5. Through this slot-hole projects a bolt, *o*, that also goes through a hole in the upper end of the legs *b b*. The bolt *o* is provided on the outside with a thumb-nut, by the tightening of which

the back is firmly held in any desired position. The hinge-plate *m* has also attached to itself a projecting pin or flange, *q*, whereupon the rear end of the seat *h* is made to rest, as shown in Fig. 3. On the back is secured a cross-bar, *r*, to which is hinged a connecting-rod, *s*; said connecting-rod is hinged in its lower end to a lever, *t*, movable around the brace *d*, as shown. The opposite end of the lever *t* is again hinged to a connection, *u*, and the connection *u* is ultimately hinged to a cross-bar, *v*, attached to the foot-board *i*. By this arrangement is seen that when the back is moved in any direction so is also the seat and foot-board moved automatically to take corresponding position—the foot-board moved by means of the parts *r*, *s*, *t*, *u*, and *v*, the seat by means of the projecting pins *q q* on the hinge-plates *m m*. The dotted lines in Fig. 1 show the position of the different parts when the back, seat, and foot-board are placed in a horizontal position, as needed when the chair is required to serve as a lounge.

It is, however, necessary, to be able to move the foot-board independently from the back of the chair, as may be desired for the support and comfortable position of a person's disabled or sick foot or leg, and for this purpose I employ the following construction: The hinge-pin connecting the parts *s* and *t* is made to be easily drawn out and thus disconnect the lever *t* from the connection *s*. On the brace *g* I have, therefore, hung a ratchet-bar, *w*, so that it may be slid to one side (as shown in Fig. 4) when not used; but when required for the purpose of raising the foot-board I press down the rear end of the lever *t* and engage it with a corresponding notch in the ratchet-bar *w*, when the foot-board and connections take the relative positions, as shown in dotted lines on Fig. 3. From this will be seen that the back can now be placed in any desired position quite independently from the foot-board, as may often be needed for the purpose above named. When the chair is not required for use it can easily be folded together in a small compass, so as to take in very little room. The closing or folding of the chair is done by raising the seat *h*, turning it around the brace *f*, and closing the upper parts of legs *a a b b* together, making the whole very handy to carry or move from one room or place to another.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent, and claim—

1. The construction and arrangement of the rocking-lever *t*, in combination with the connecting rods *s* and *u* connected to the back and foot-board, for the purpose set forth.

2. The construction and arrangement of the brace *w* or its equivalent, in combination with the rocking-lever *t*, connecting-rod *u*, and foot-board *i*, for the purpose as herein set forth and described.

3. The construction and arrangement of the hinge-pin plates *m m* attached to the back *k* and

provided with the pivot *l*, shoulder *q*, circular slot-hole *n*, in combination with the set-screw *o*, for the purpose of confining the back in any desired position.

4. The construction and arrangement of the shoulders *q q* attached to the hinge-pin plates *m m*, for the purpose of raising or lowering the seat *h* automatically, as herein fully shown and described.

E. WARREN HASTINGS.

Witnesses:

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