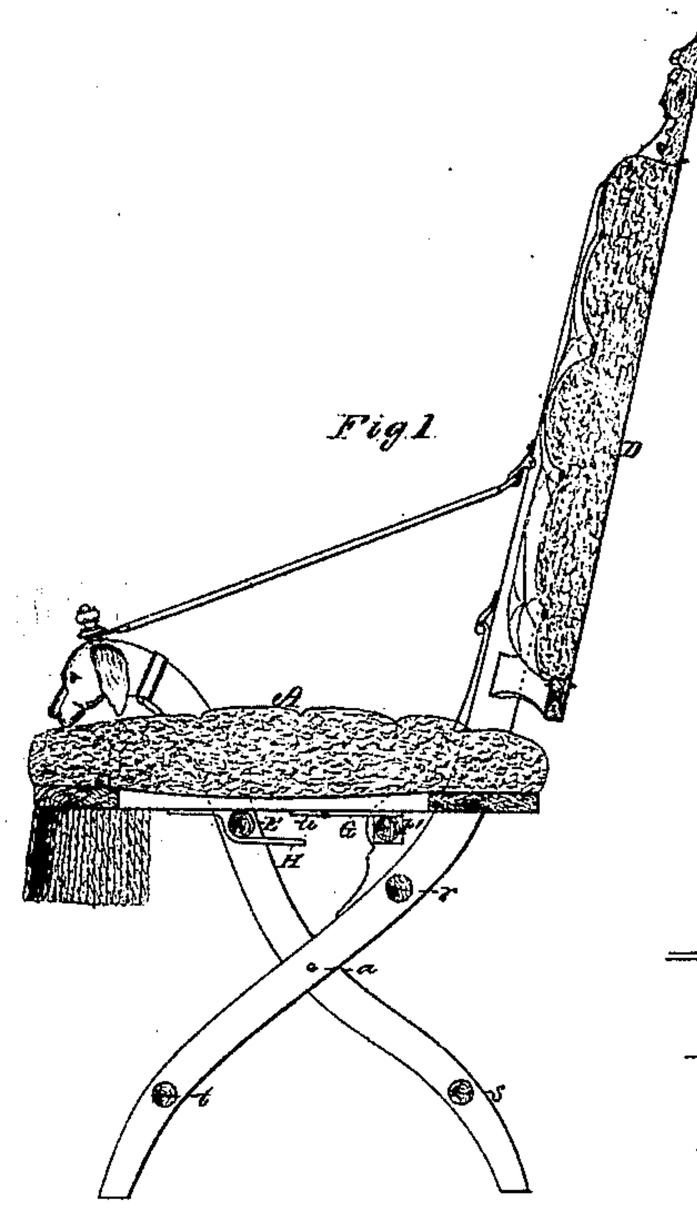
F. M. Holmes.

Folding Chair.

No. 112,040. Patented Feb. 21. 1871.

Fig. 1



Witnesses

S. N. Piper.

L. N. Müller.

F. M. Holmes.

by his attorney

R. H. Eddy

Fig. 2.

Fig. 4.

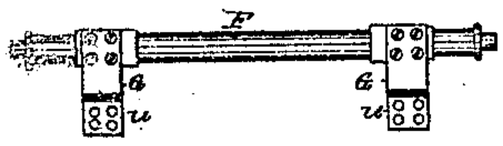
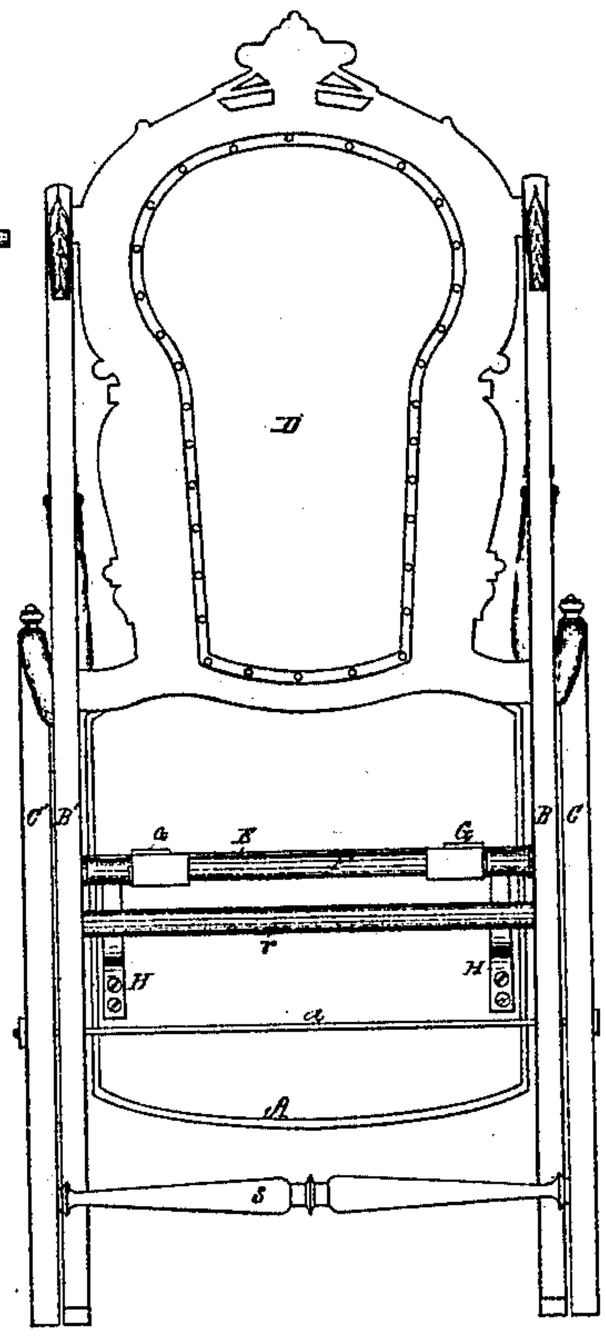


Fig. 3.



United States Patent Office.

FRANCIS MARCH HOLMES, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 112,040, dated February 21, 1871.

IMPROVEMENT IN FOLDING-CHAIRS.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, FRANCIS MARCH HOLMES, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Folding-Chairs; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a vertical section of one of my improved chairs in an unfolded state, ready for use;

Figure 2 is a vertical section; and

Figure 3, a rear elevation of it as folded.

The main features of the folding-chair as improved by me consist of a seat, A, two sets of crossed levers, B B′ C C′, a back, D, and two seat-supporting rungs, E F.

The longer levers B B′ are crossed on the smaller ones C C′, and pivoted thereto, the pivotal rod being shown at *a*. It goes through both sets of levers. Furthermore, the longer levers are disposed between and against or in close contiguity with the shorter levers.

The shorter levers are connected by the front supporting-rung E of the seat, and also by another rung, S, the latter being disposed below the pivotal rod, such rungs E S being tenoned and firmly fastened in the levers, so as to be immovable relatively thereto.

The longer levers are connected in a similar manner by two rungs, *r t*, arranged as represented, and also by the back D, disposed between such levers, in manner as shown.

In carrying out my present improvement the rearmost seat-supporting rung F has pivots or joints at its ends to rest in bearings in or applied to the longer levers; and, furthermore, it has two short plates or arms, G G, extended from it, and pivoted or hinged at their front ends to the seat, the two seat-supporting rungs having their axes arranged at equal distances from the axis of the pivotal bar *a*, the whole being in order that the seat, while falling toward or into a vertical position, shall slide on and turn over upon and down in front of the front rung F.

When the seat is horizontal, or in the position to receive a sitter, one or more hooks or steps, H, extended down from it, bear against the front rung, and thus aid in supporting the parts of the chair in their proper positions for the chair to be used by a sitter.

Figure 4 is a top view of the rotary seat-supporting rung F, with its journals, and its arms G G, and the hinge-plates *u u*, each of such arms, in fact, composing one leaf of a hinge, which leaf is to be long enough to project beyond the rung a distance at least equal to the thickness or diameter of the front rung E.

By means of the rotary rung F and its connections, as described, with the seat, I am enabled to dispense with "three-leaved hinges," and their employment in manner and with a rung stationary relatively to the longer levers, as shown and described in an application for a patent recently filed in the Patent Office by me.

The rung F, by being capable of revolving, will readily enable the arms to preserve their horizontal positions while the chair may be folded or unfolded, or be in the act of being either folded or unfolded, the seat in any of its positions deriving its support from the two rungs E F and their connections with it and the two sets of crossed levers.

What, therefore, I claim as my present improvement in the folding-chair provided with the seat A, two sets of crossed levers B B′ C C′, and two seat-supporting rungs E F, as described, arranged as set forth, consists in the back rung F, pivoted to the longer levers B B′, as described, and connected to the seat by means of the "two-leaved hinges" or arms G G, extended from the said rung, and pivoted or hinged to the seat, all substantially as specified.

Witnesses:

R. H. EDDY,

J. R. SNOW.

F. M. HOLMES.