

GEORGE T. FOWLER.

Improvement in Invalid-Chairs.

No. 114,282.

Patented May 2, 1871.

Fig. 1.

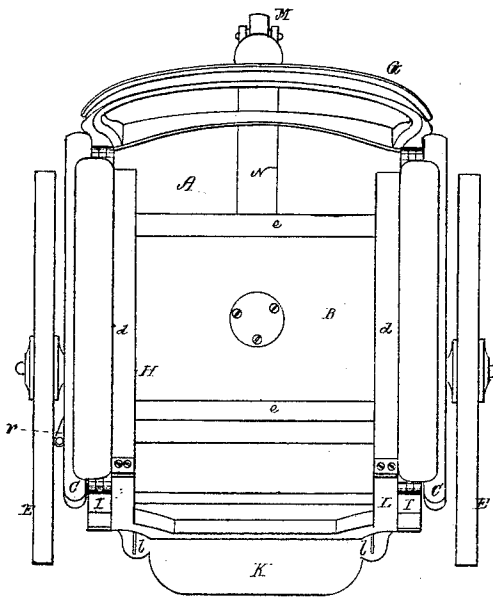


Fig. 3.

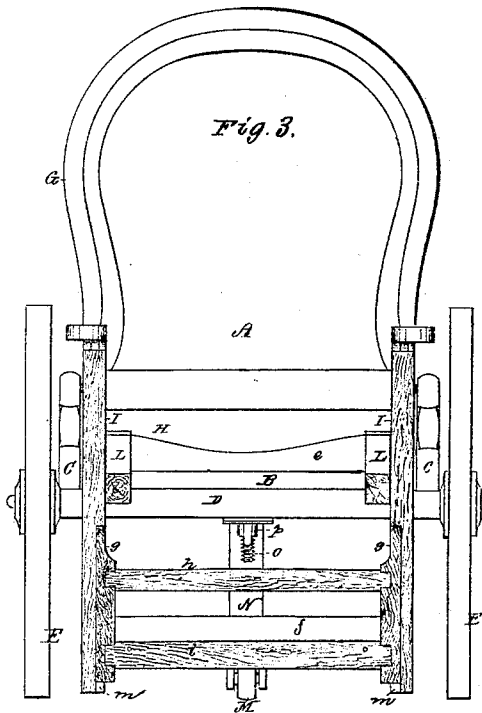
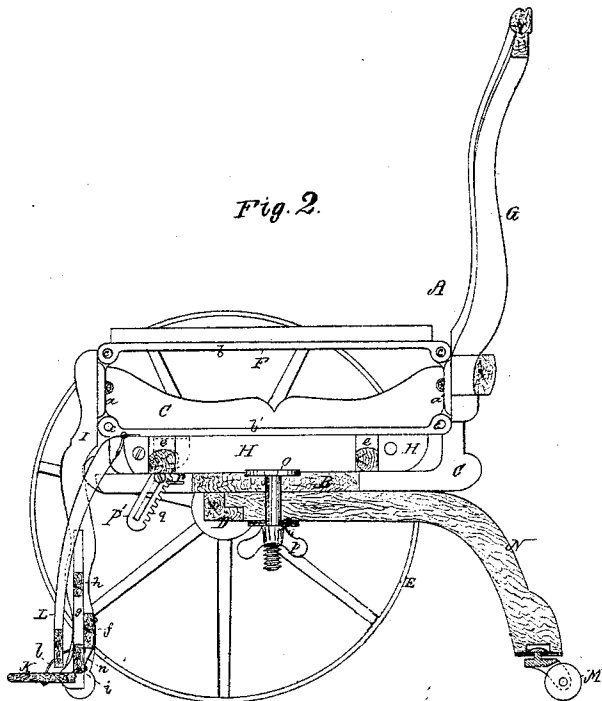


Fig. 2.



Witnesses

Chas. C. Damon.

Edward Liffich

G. T. Fowler

by his attorney

Frederick Curtis

United States Patent Office.

GEORGE T. FOWLER, OF EAST SOMERVILLE, MASSACHUSETTS.

Letters Patent No. 114,282, dated May 2, 1871.

IMPROVEMENT IN INVALID-CHAIRS.

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

To all to whom these presents shall come:

Be it known that I, GEORGE T. FOWLER, of East Somerville, in the county of Middlesex and State of Massachusetts, have made an invention of certain original and useful Improvements in Invalid-Chairs; and do hereby declare the following to be a full, clear, and exact description thereof, due reference being had to the accompanying drawing making part of this specification, and in which—

Figure 1 is a plan;

Figure 2, a vertical central and longitudinal section; and

Figure 3, a vertical and transverse section of a chair embodying my improvements.

Construction of Chair.

The drawing accompanying and illustrating this specification represents at A the base of the chair, as composed of a flat board, B, and two side cheeks, C C, erected upon its opposite ends, and between which the movable parts of the chair are pivoted, the base of the chair being supported by an axle, D, mounted upon two wheels, E E.

F F represent two open rectangular oblong frames, disposed one upon each side of the base B and immediately inside of the cheeks C C, such frame in reality constituting a large hinge, and being composed of two end bars, the front one of which is seen at *a* and the rear one at *a'*, and an upper and lower rail, *b* and *b'*, such rails being at all times substantially in a horizontal plane, and consequently parallel to one another and to the base B, and being pivoted together at their corners, as shown at *c c c c*.

The chair-back is represented in the drawing at G as of ordinary form, and secured at its lower part to and spanning the end bars *a' a'*, these end bars being pivoted at about their centers to the cheeks C C by trunnions which extend laterally from them into such cheeks, the forward bars *a a* being pivoted in like manner.

The lower rails *b b'* of the hinge are united by a rectangular frame, H, composed of side beams *d d* and end bars *e e*, this frame composing the foundation of the seat.

The upper rails *b b* of the hinge F constitute the arm-rest of the chair, and are to be upholstered in any desired manner.

The back G and seat H, united as described, resemble and adapt themselves to the hip-joint of the human frame.

I I in the accompanying drawing represent two bars, the upper ends of which are fixed respectively to the outer sides of the two end bars *a a* of the hinge, such bars or supports hanging from the hinge and ex-

tending, when in an upright position, nearly to the floor upon which the chair rests, and being united at their lower ends by an intervening cross-bar, *f*.

The bars I I and hinge F, under the combination and arrangement herein shown, conform to the knee-joint of the body of the person occupying the chair.

The foot-rest of the chair is exhibited in the drawing at K as composed of a frame made of two side rails, *g g*, and top and bottom rails *h i*, the latter carrying the foot-board *k*, which is pivoted to it as represented, and provided with arched rods or braces *l l*, which, while bracing it when in a position at right angles to the frame K permit it to be turned against the same when not in use.

The foot-rest K, or its frame, slides in ways or channels *m m* cut in the rails I, and is confined therein and to such rails by elastic straps *n n*, or their equivalents, in order to produce an expansible surface, for purposes hereinbefore named.

L in the drawing represents still another frame, covered with a suitable padded material, and pivoted to the front edge of the seat-frame, this frame L constituting the leg-rest of the chair, and being situated between the rails *i i*, and overlapping the foot-rest K.

The third or steering-wheel of the chair is shown at M, swiveled to the lower end of an arched standard, N, which is fastened to the axle D, both standard and axle being secured to the under side of the base B by a bolt and clamp-nut, *o* and *p*, so that they may be readily detached and removed when it is desired to apply a frame to the chair provided with legs instead of wheels. By thus using with the chair two interchangeable frames, the one having wheels, the other legs, the chair can be used for many purposes for which it would not otherwise be available.

It will be apparent, and hardly needs the remark, that tilting the back of the chair into a sloping or horizontal position induces a corresponding movement of the leg and foot-rests, while the seat remains horizontal, and it will be observed that the construction of the joints of the hinge F permits a horizontal position of the three to be acquired without danger of breakage.

In order that the back seats and foot-rests may be securely locked in any given position, at the will of the occupant, I attach to the lower side of one or both rails *b'* of the hinge a depending strip, *p'*, of metal, upon the rear edge of which a toothed rack, *q*, is cut, while within the contiguous part of the adjacent cheek C I pivot a horizontally-disposed stop-pawl, *r*, in such manner that it may be turned and mesh into the rack and stop movement of the back seat and foot-rest, or removed from contact therewith at pleasure, the situation of the pawl as before observed being such that

ready access may be had to it by the occupant of the chair.

The addition to an invalid's chair of the wheels as herein stated is a very desirable one, as it enables the occupant to trundle himself about from one locality to another, and also permits an invalid or sick person who is unable to assume a sitting posture or to assist himself in the slightest degree, to be transported from one room to another while reposing at full length.

Claims.

1. The sliding foot-rest frame mounted in ways or grooves, and combined with suitable springs,

for permitting the extension or sliding movement of said frame substantially as and for the purposes set forth.

2. The combination, with the body of an invalid-chair, of a removable wheel-frame D N carrying the side and rear wheels, and secured to the chair substantially in the manner and for the purposes shown and described.

GEORGE T. FOWLER.

Witnesses:

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