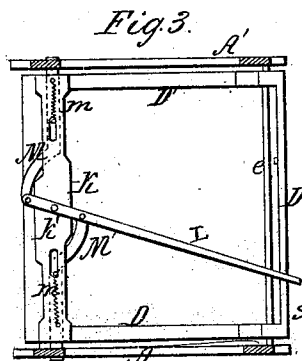
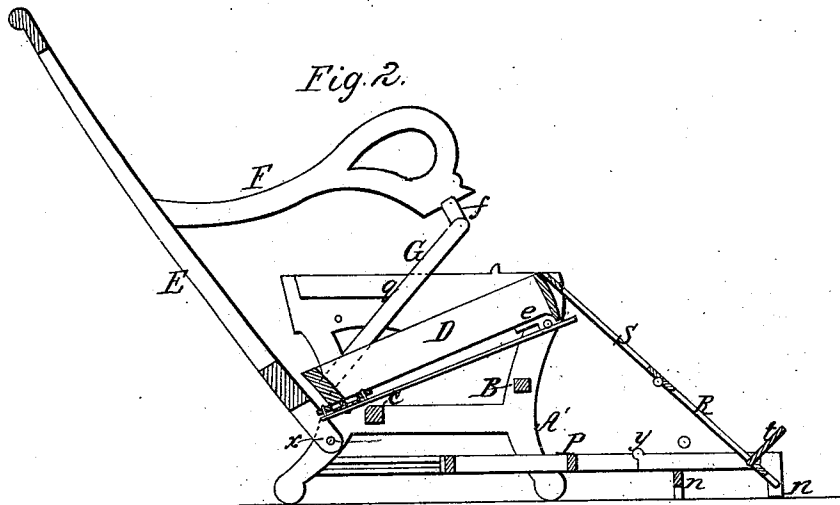
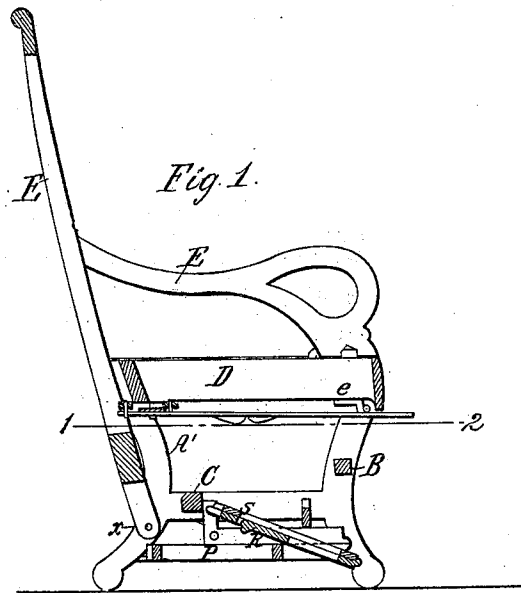


W. H. Van Nortwick,

Invalid Chair.

N^o 41,129.

Patented Jan. 5, 1864.



*Witnesses;
Charles H. Foster
W. Albert Steel*

*Henry Howson.
Atty for W. H. Van Nortwick
Inventor.*

UNITED STATES PATENT OFFICE.

WILLIAM H. VAN NORTWICK, OF BORDENTOWN, NEW JERSEY, ASSIGNOR
TO HIMSELF AND R. S. VAN RENSSELAER, OF SAME PLACE.

IMPROVED RECLINING-CHAIR.

Specification forming part of Letters Patent No. 41,129, dated January 5, 1864.

To all whom it may concern:

Be it known that I, WILLIAM H. VAN NORTWICK, of Bordentown, New Jersey, have invented an Improvement in Reclining-Chairs; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in the reclining-chair for which Letters Patent were granted to me and R. S. Van Rensselaer, on the 5th day of August, 1862, and my improvements consist in the combination of a series of frames with the seat and stationary frame, for the purpose of supporting the legs of the occupier of the chair when he is in a reclining position, the said frames being so arranged that they can be folded and moved out of the way when the chair has to be converted into an ordinary seat.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 represents a vertical section of my improved reclining-chair; Fig. 2, the same, illustrating the chair in a different position; and Fig. 3, a sectional plan view of the chair inverted.

Similar letters refer to similar parts throughout the several views.

It will be observed that my improved reclining-chair is in some respects similar to that for which Letters Patent were granted to me and R. S. Van Rensselaer on the 5th day of August, 1862, there being a seat, D, and a back, E, the front of the seat and lower end of the back being so hinged to the stationary frame that on lowering the seat the back will be lengthened, and on raising the seat the back will be shortened, a feature too particularly described and claimed in the aforesaid patent to need a lengthened description here.

The stationary supports, or, as they may be termed, the "legs" of the chair, consist, in the present instance, of the two side frames, A and A', made of wood or metal, and firmly connected together by the two cross-pieces B and C.

The front of the seat D is hinged to the two frames by a pin, e, or by any suitable joint.

The back E is also hinged to the frames at

x, and to the back are permanently secured the two arms F, on the front end of each of which is a projection, f, connected by means of a rod, G, to the rear of the seat D.

On referring to the aforesaid patent, and comparing the invention therein described with my present invention, it will be at once seen that this portion of my improvement dispenses with much of the expensive complexity of the patented chair, as on lowering the seat the back must be lengthened, and on raising the seat the back must be shortened, without the aid of any other appliances for connecting the seat to the back and both to the frame than those described, which are much more simple than and equally efficient as those set forth in the aforesaid patent.

In order to retain the seat in an elevated position, I make use of the following mechanism, which is somewhat similar to that described in the said patent:

A cross-bar, K, is secured to the under side and at the rear of the seat D, and to a central pin, k, projecting from this bar, is hung a lever, L, to which are jointed two rods, M and M', one on each side of the pin k.

Each rod has a projection passing through and guided by an elongated slot in the cross-bar K, and suitable spiral or other springs m, tending to force both of the rods outward and to cause their ends to project into openings in the opposite frames A and A'.

On pulling the lever L in one direction, therefore, the rods will be drawn toward each other and the rear of the seat be permitted to fall, and on elevating the seat the rods will, through the action of the springs m, be at once projected into the holes in the frames, thereby retaining the seat in an elevated position.

Several holes may be made in the frames to receive the ends of the rods M, so that the degree of inclination of the seat and back of the chair may be changed at pleasure.

It will be evident that mechanism other than that described may be employed with good effect for retaining the seat and back at any of the relative positions which they may be required to assume.

As a means of preventing the rear of the seat from being depressed beyond a given point, I cause the rods G to bear against shoulders g made on the frames.

In the chair described in the patent of Au-

gust 5, 1862, no provision was made for the occupant of the chair to place his legs in the comfortable inclined position required by the reclining position of his body. I will now proceed to describe the appliances which I have adopted for this purpose.

A frame, P, Fig. 2, is arranged to slide to and fro in grooves formed in the inside of each of the opposite frames A and A', and to the front end of this frame a second frame, Q, is hinged at y, this frame having two legs, n n, which, as seen in Fig. 2, rest on the floor. A third frame, R, is jointed to the front end of the frame Q, and this frame R is connected by a rule joint to a fourth frame, S, and the outer end of this frame rests against the front edge of the seat D, so that the two frames R and S present an inclined plane for supporting the legs of the occupant of the chair when he is in a reclining position.

It will be understood that these frames S and R, as well as the seat and back of the chair, are properly cushioned.

If deemed necessary, the lower end of the frame R may be furnished with a projection, t, to serve as a support for the feet.

When the support for the legs is not required, the frames S and R are folded together. Both are folded onto the frame Q and with the frame P are moved to the position seen in

Fig. 1, beneath the seat D. This adjunct to the reclining chair, when the latter is used on railway cars, is especially valuable, as it affords every comfort for the passenger when he assumes a recumbent or reclining position for the night, while during the day the frames are made to occupy a position which presents no obstruction to the conversion of the chair into a seat occupying no more room than the usual seats of cars.

In addition to other advantages presented by my improvement, sufficient room is afforded during the day between the seat D and the folded frame to contain a blanket to be used as a covering during the night.

I claim as my invention, and desire to secure by Letters Patent, as an improvement on the patent granted to me and R. S. Van Rensselaer, on the 5th day of August, 1862—

The sliding frame P and folding frames Q, R, and S, or their equivalents, in combination with the seat D and the frame-work or other support to which the seat is hinged.

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

WM. H. VAN NORTWICK.

Witnesses:

HENRY HOWSON,
T. S. STEVENS.