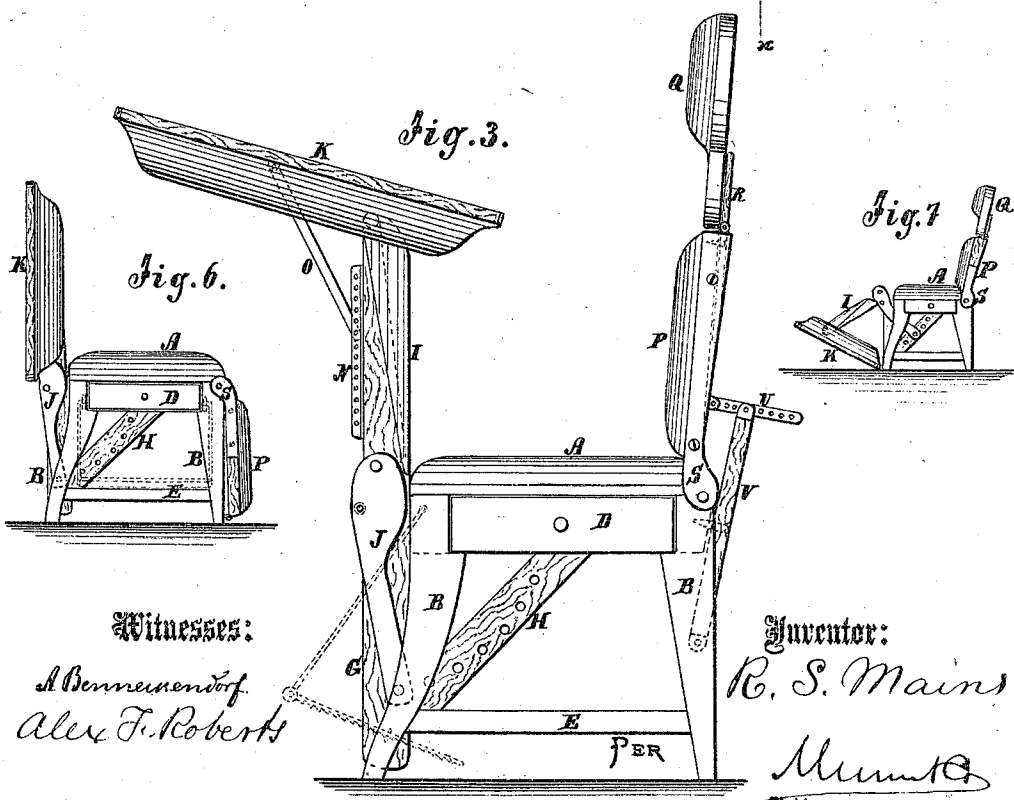
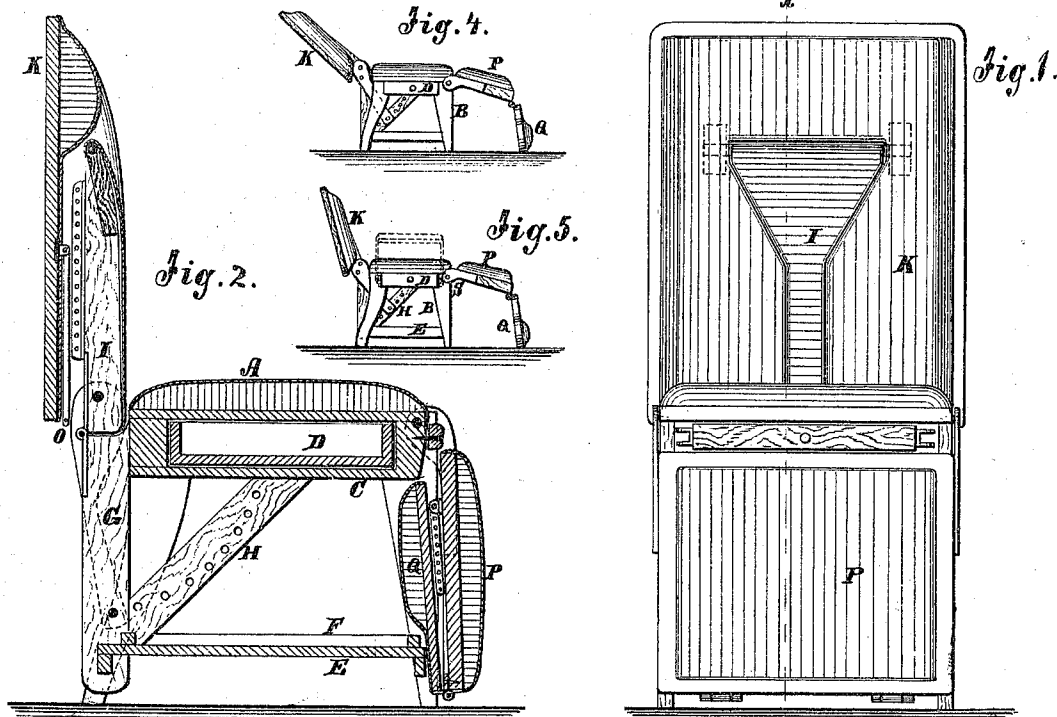


R. S. MAINS.  
Improvement in Chairs.

No. 128,804.

Patented July 9, 1872.



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# UNITED STATES PATENT OFFICE.

RANDOLPH S. MAINS, OF NEW YORK, N. Y.

## IMPROVEMENT IN CHAIRS.

Specification forming part of Letters Patent No. 128,804, dated July 9, 1872.

Specification describing a new and useful Improvement in Chairs, invented by RANDOLPH S. MAINS, of the city, county, and State of New York.

This invention relates to new and useful improvements in chairs, whereby they are adapted to various purposes, more especially designed for studying, reading, and writing, but not confined to such uses; and it consists in the construction and arrangement of parts herein-after more fully set forth and described.

In the accompanying drawing, Figure 1 represents a front view of the chair. Fig. 2 is a vertical section of Fig. 1 taken on the line *x x*. Fig. 3 is a side view of the chair, showing the writing-desk and easy-chair. Figs. 4 and 5 represent the chair as an easy or reclining chair, and with and without arms, the arms being represented in dotted lines in Fig. 5. Fig. 6 is a side view; Fig. 7 as an invalid-chair.

The above views represent but a portion of the forms which the chairs can be made to assume, which forms or adjustments adapt it for various uses. (See recapitulation.)

Similar letters of reference indicate corresponding parts.

A is the seat, which is stationary on the frame B, the latter consisting of four legs connected together by rails in the usual manner on three sides, and by an under bottom, C, formed of thin boards fastened to the lower edges of two opposite rails, upon which is arranged a drawer, D, the front of which, when the draw is closed, represents and supplies the place of the fourth rail. E is a still lower open or inclosed bottom, attached to the legs a short distance from the floor, having a flange, F, around it. This bottom or shelf is designed for books, charts, and other articles. G is a stationary post or pillar securely fastened to the back rail of the seat-frame, and to the bottom or shelf E, as seen in the drawing. H is a brace extending from near the foot of the post G, at an angle of about forty-five degrees, to the center of the under bottom C. This brace is provided with a series of adjusting-holes, as seen in the drawing. To the top of the post G is hinged the back bar I. J is an adjusting-plate on each side of the post G, which is pivoted to the hinge which connects the post with the back bar by the pintle of the hinge, or in any suitable manner. The up-

per ends of these adjusting-plates extend up so as to support and fasten the back bar in an upright or inclined position, as seen. This adjustment is made by means of pins passing through the plates J and the bar. When they are thus fastened together, and the back bar is turned back—as seen, for instance, in Figs. 3 and 4—the lower ends of the adjusting-plates J J slide up on the sides of the brace H, to which they are fastened by a pin, as seen in those figures. K is the table, which is hinged to the top of the back bar, so that it can turn freely thereon. One side is upholstered, so as to admit the back bar into a recess, and not allow the bar to project when the back is upright or inclined. The opposite side of the table K is smooth, and may be used for a draughting-board, as the case may be. On the back edge of the back bar I is a metallic plate, N, the flanges being perforated with holes, as represented. O is a brace-rod, which is hung to the upholstered side of the table. This rod has a hole in its lower end, and when the table is turned over and adjusted for drawing, writing, reading, or other purposes, it is supported by means of this brace, and the flanged plate N by means of a pin, as seen in Fig. 3. By this means the table may be adjusted to any required angle or inclination, or horizontally, as may be required. In the latter position the table may be made to project over a bed in the sick-room, and be extremely useful for that purpose. P represents the back of the chair, and is composed of two parts, or a head-piece, Q, is hinged to the back so that it will drop down, or may be fastened up parallel with the back, as seen in Fig. 3. In this latter position it is held by a center-bar, R, pivoted (near the top) to the back P. When the head-piece is down the bar is horizontal, but when supporting the head-piece it is turned on its pivot and stands vertical, as seen in Fig. 3. The adjustment of the back P is as follows: To each side of the back a hinge-plate, S, is attached, which is connected with the two back legs by pivot-screws. This allows the back to turn down and the head-piece to fold under, as seen in Fig. 2. The back is supported in an upright position, as seen in Fig. 3, by a perforated bar, U, which is hinged to the back, and another center-bar, V, pivoted to the back rail of the seat-frame. This cen-

ter-bar operates in connection with the hinged bar U, and is provided with a clevis at each end, which allows either end to be used, and to be fastened to the hinged bar U by a pin, as represented.

Although I designate the part P as the back of the chair, the various modifications and adjustments of which the chair is susceptible make the part K the back sometimes, as seen in Fig. 6, and sometimes it is a foot-piece, as seen in Fig. 7; and, in Figs. 4 and 5, P is represented as supporting the lower limbs.

The chair is susceptible of a great variety of forms and transformations. I do not, therefore, confine myself to any specific form or purpose; but design to use it for all the purposes to which it may be adapted.

On the top of the table or back K a box may be placed to receive an inkstand, pen, and pencil-case, which may be sunk in the upholstery so as to be concealed by a cover. At the lower edge of the table or desk a strip will be fastened to keep books, &c., from sliding off.

*Recapitulation of some of the Uses of the Chair.*

First, a simple chair, Figs. 1, 2, and 6; sec-

ond, stool and table; third, chair and table; fourth, easy-chair and table; fifth, stool and desk; sixth, chair and desk; seventh, easy-chair and desk, Fig. 3; eighth, stool and reading-desk; ninth, chair and reading-desk; tenth, easy-chair and reading-desk; eleventh, sick-room table; twelfth, drawer at left side for ink, &c.; thirteenth, book-case, maps, charts, &c.; fourteenth, auditor's desk; fifteenth, easy chair, Fig. 5; sixteenth, sofa, Fig. 4; seventeenth, invalid's chair, Fig. 7.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of part K, plates J, and brace H with chair, as and for the purpose described.

2. The combination of part P Q and center-bars V R with chair, as and for the purpose set forth.

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