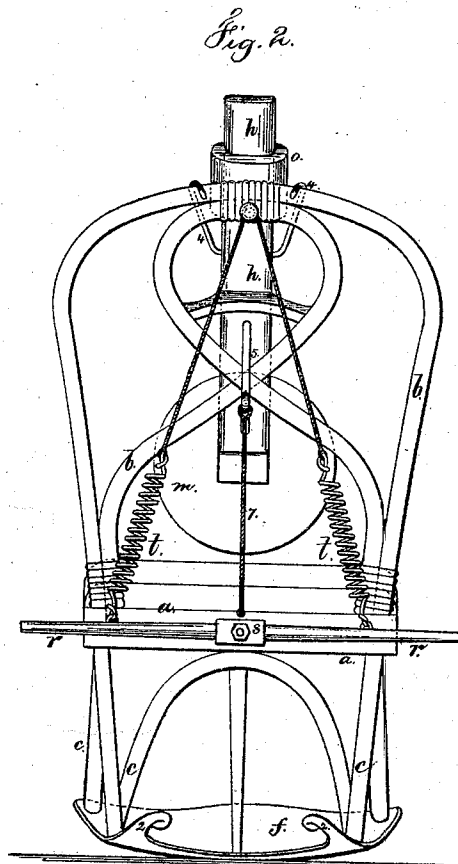
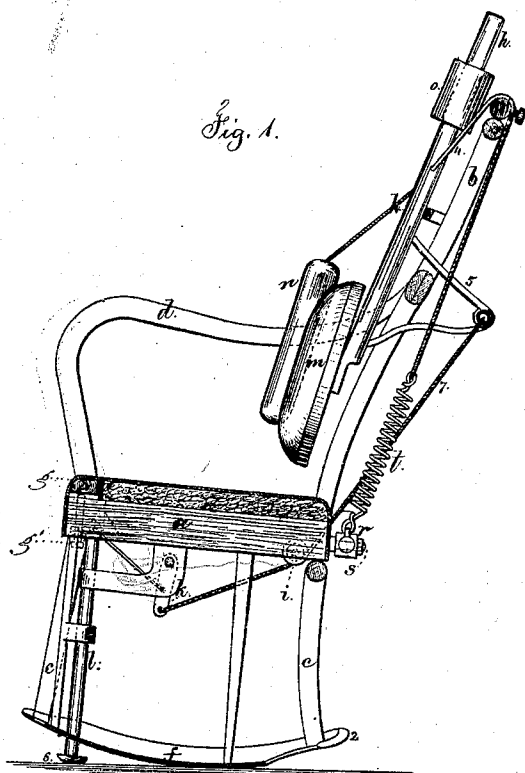


J. LEWIS.

Improvement in Chairs.

No. 133,233.

Patented Nov. 19, 1872.



John A. Smith
Geo. D. Hall Sr.

Witnesses.

INVENTOR
John Lewis,
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ATTY.

UNITED STATES PATENT OFFICE.

JOHN LEWIS, OF NEW YORK, N. Y.

IMPROVEMENT IN CHAIRS.

Specification forming part of Letters Patent No. 133,233, dated November 19, 1872.

To all whom it may concern:

Be it known that I, JOHN LEWIS, of the city and State of New York, have invented an Improvement in Chairs for sedentary persons, and the following is declared to be a correct description of the same.

This chair is particularly designed for professional men and persons that sit at a desk or table writing or working, and is made to furnish a limited amount of rocking motion in any direction to facilitate turning the chair around, and to apply a yielding pressure to the back when leaning forward, thereby tending to straighten the spine and expand the chest. An exercising-bar is also combined with the chair, so as to afford opportunity for muscular action with the hands and arms at intervals during business.

In the drawing, Figure 1 is a vertical section through the seat of the chair and back, and Fig. 2 is a rear view of the chair.

The frame *a* of the seat, back *b*, and legs *c* are to be of any desired character, and the arms *d* should be provided also. The base of the chair is made of a convex universal rocker, *f*, that is preferably of open-work metal, with sockets for the lower ends of the legs *c*, that are secured by screws passing up into the legs. The rocking base *f*, being convex upon its under side, allows the chair to rock or oscillate sidewise or forward or backward, as most convenient for the person, and the extent of motion backward may be limited by the ends 2 of the base. The sides of the base may be provided with projecting arms to prevent the chair tipping too far sidewise. The chair can be turned around while occupied with facility, the convex base allowing thereof. The cushion of the seat is provided with a graduating-board, *g*, that can be raised or lowered by screws *g'* to vary the height of the front edge of the cushion, and to prevent the person slipping off the chair. The back-bar *h* is hinged or hung from the back *b* of the chair by links 4, and a strut, 5, projects at the back from which a chain or cord, 7, passes below the pulley *i* to an arm or bent lever, *k*, that is connected with the upper end of the sliding rod *l*, that has a foot-piece, 6, below the base *f*.

It will now be understood that as the person leans forward the chair swings on the convex base, and the foot 6 and its rod *l* causes the chain 7 to be pulled upon and the bottom end of the back-bar *h* to be moved toward the person; the bent lever or arm *k*

swinging forward comes nearly into line with the chain to hold the parts firmly.

A cushion, *m*, is provided to press against the small of the back and support the same and tend to straighten the spine as much as a forward leaning posture will allow of. This cushion *m* may be circular with a central recess; or it may be of any desired shape, and a loose cushion, *n*, may be hung in front of this cushion *m*, if desired. By attaching the cushion *m* to the bar *h* by a hinge, said cushion is free to accommodate itself to the back of the person.

The head-rest *o* is made of a cushion that can be raised or lowered upon the back-bar *h* to suit the person as he leans back. The lower part of the back-bar *h* yields as soon as the person leans back, because the weight is taken off the foot 6, and, the bar *h* coming into contact with the fulcrum or support *b*, the upper end is thrown forward to support the head and back, while the lower part swings back out of the way.

The exercising-bar *r* is placed across the back of the chair-seat and swings upon a central fulcrum, *s*. Springs *t t* are connected by cords to the chair-back, and these may be set up to a tension of any desired number of pounds, and a dial employed to denote the pressure. When a person reaches downward and backward to grasp the bar *r* the chest is expanded, and exercise may be taken with one or both hands.

The back ends of the rockers being rounded inwardly causes them to occupy less space than usual and not to be in the way in walking near the chair.

I claim as my invention—

1. The convex base, for a chair, forming a universal rocker, substantially as set forth.
2. The back-bar, hinged to the chair-back, in combination with the cord or chain 7 and its actuating-foot, substantially as set forth.
3. The exercising-bar, applied upon a fulcrum at the back of the chair, substantially as set forth.
4. The graduating-board *g*, introduced within the padding of the cushion or seat and adjustable by the screws *g'*, as and for the purposes set forth.

Signed by me this 9th day of May, 1872.

JOHN LEWIS.

Witnesses:

GEO. D. WALKER,
CHAS. H. SMITH.