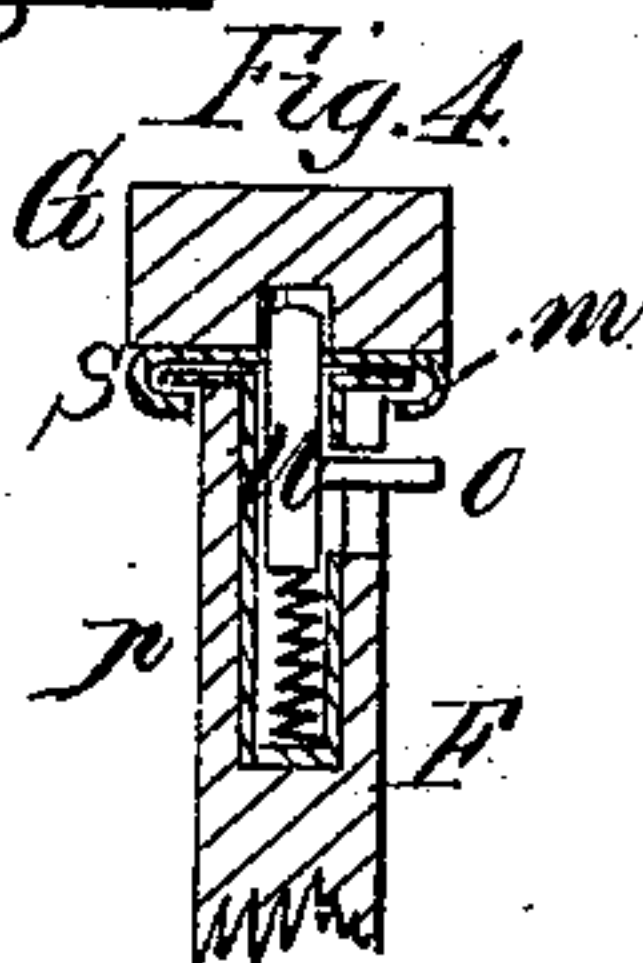


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L. N. McIntire

United States Patent Office.

CHARLES C. SCHMITT, OF NEW YORK, N. Y.

Letters Patent No. 85,481, dated December 29, 1868.

IMPROVEMENT IN SPRING-ROCKING CHAIRS.

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

To all whom it may concern:

Be it known that I, CHARLES C. SCHMITT, of New York, of New York county, in the State of New York, have invented certain new and useful "Improvements in Chairs;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to certain new and useful improvements in that kind of chairs generally known to cabinet-makers as easy-chairs, and has for its objects to combine, in an economic and efficient manner, all the functions of an arm-chair, rocker, and adjustable reclining-chair in one piece of furniture, and at the same time to so construct and arrange the several parts that the chair may be folded and packed, for transportation, in a very small space; and to these ends,

My invention consists, first, in making a chair with its seat hinged to the base of the chair, forward of the centre, and supported at the front and rear by suitable springs, in such manner that the seat may rock on its hinges, and be eased by the springs, all as hereinafter more fully described; and

My invention consists, secondly, in the employment of sliding, adjustable, and removable arms, arranged and operating as and for purposes to be presently fully explained; and

My invention consists, thirdly, in hinging the back of the chair to the seat of the chair, by means of loop-hinges, or their equivalents, as will be presently explained, in such a manner that the back may be folded down close to the seat, as will be presently described.

To enable those skilled in the manufacture of chairs to more fully comprehend my several features of improvements, I will proceed to describe the construction and operation of one of my improved spring-rocking and reclining arm-chairs, referring by letters to the accompanying drawings, in which—

Figure 1 is a side elevation of one of my chairs;

Figure 2 is a similar view, with the lower part in section, showing the chair with the arms removed, and the back folded down ready for packing;

Figure 3 is a detail longitudinal vertical section through one of the arms, showing more particularly the adjustment-devices;

Figure 4 is a cross vertical section at *z z*, fig. 1; and

Figure 5 is a detail view, showing the removable arm detached.

In the several figures of the drawings, the same parts are designated by the same letters of reference.

A is the base or lower frame-portion of the chair, which may be made of any desired pattern or design, with its upper part adapted to sustain the seat B in each of its extreme inclined positions.

The seat B is hinged to the base A by means of hinges on each (inner) side, (as seen at *c c*), in such manner

that the seat can rock back and forth on said hinges, and said seat is sustained beneath, in front and rear, by means of spiral springs *d d* and *e e*, as clearly shown.

It will be observed that the pivots or seat-hinges *c c* are arranged considerably forward of the centre of the seat; that is to say, the seat is so hung on the pivots *c c*, that while it can vibrate backward to a considerable extent, it is not capable of moving very far forward.

By this arrangement of the parts, the pivot, or axis of oscillation, is thrown well forward, and thereby the seat is permitted to move in about the same manner as that of a rocking-chair, and with much greater facility and comfort than is possible in chairs in which the seat is so hinged (near or at the centre) as to be capable only of moving as far back as forward, and so that the axis of oscillation does not come about coincident with the centre of gravity of the body resting on the seat of the chair, (as it does in my improved chair.)

F are the arm-standards or supports, which are firmly connected to the seat-frame on each side, as shown; and

G are the sliding adjustable and removable arms.

H is the back of the chair, which is connected to the rear edge of the seat B, by means of loop or strap-hinges *i*.

I will explain the construction and operation of one of these hinges.

It is formed of a metallic strip or casting, of about the shape seen in the drawing, (at figs. 1 and 2,) adapted to be secured by screws, at 1, 2, to the seat B, and having a long inclined slot or opening, *x*, in which works a pivot or stud, *y*, which projects from the lower corner or edge of the back H.

This stud or pivot is free to turn in the slot *x*, and thus forms the hinge, but it is also free to slide upward in said slot, (being held down only by the weight of the back H,) so that when the back is to be folded down, as shown at fig. 2, the stud *y* rides upward, to the extreme upper end of slot *x*, and thus the back and seat are brought into parallel planes, and sufficiently far apart for the accommodation between them of the upholstery *k k*, or cushioning of the seat and back.

The standards F are each provided with a top plate, *m*, (see fig. 4,) which projects a little over each side, and over which passes one of the retaining-plates *s* of the arms G, and on each of the standards F is arranged a bolt, *n*, having a spiral spring, *p*, beneath it, to continually press it up, and provided with a handle, *o*, by means of which it may be depressed, and each of these bolts is adapted to catch into holes 3, 4, 5, &c., in the lower face of arm G, to retain the latter longitudinally in adjustment.

Each of the arms G is connected to the back, at *t*, by means of a hook catching over a stud, and it is retained in connection by a swinging lock-piece, *w*.

The operation of the chair and its use may be thus described:

Supposing the chair adjusted, as shown at fig. 1, if the chair be occupied, it may be rocked back and forth, with great ease and comfort to the occupant, the seat oscillating on the hinges *c c*, and resting alternately on the springs *e e* and *d d*.

If it be desired to have the back less inclined, the person has only to grasp the arms *G G*, and pull them forward, when they will slide over the tops of standards *F*, (the bolts *n* being depressed, and passing from one to another of the holes 3, 4, 5, &c.,) until the back is sufficiently straight.

If it be desired to incline the back more, then the occupant has to depress the bolts *n*, by pushing down the handles *O O*, and lean against the back, when the bolts will catch into another set of holes nearer the forward ends of arms *G*.

When it is desired to fold the chair up, (for the purpose of transportation, either by the manufacturer or in moving furniture,) the lock-buttons *w* are turned up, (as shown in red, fig. 1,) and the arms disconnected at *i*, and slid entirely off from the standards *F*. The back and seat may then be folded close together, as shown at fig. 2, by virtue of the strap-hinge *i*, and the arms being laid on, the whole apparatus may be packed in a comparatively small rectangular box or case.

Of course the base *A* may be mounted on casters, if deemed expedient, and its design and construction may be varied, without departing from the spirit of my invention.

It will be seen that a chair constructed upon the plan of my invention, while it may be made economic, and is adapted to be conveniently packed for transportation will possess all the advantages, in point of comfort and elegance, of a reclining, easy, and rocking-chair.

Having fully explained the several features of my invention, and wishing to be understood as not limiting my invention to any of the mechanical details of construction necessary in carrying out the several improvements,

What I claim as new, and desire to secure by Letters Patent, is—

1. A chair having its seat hinged to the base or lower portion, forward of the centre, substantially as described, and sustained by springs, substantially as and for the purpose set forth.

2. The employment, in combination with a chair having a reclining back, of arms, which are both adjustable and removable, in the manner and for the purposes as specified.

3. The employment, in combination with the seat and folding back, of the slotted hinge-pieces, substantially as described, for the purpose set forth.

In witness whereof, I have hereunto set my hand and seal, this 3d day of February, 1868.

CHAS. C. SCHMITT. [L. s.]

Witnesses:

WM. C. MCINTIRE,
C. A. SCOTT.