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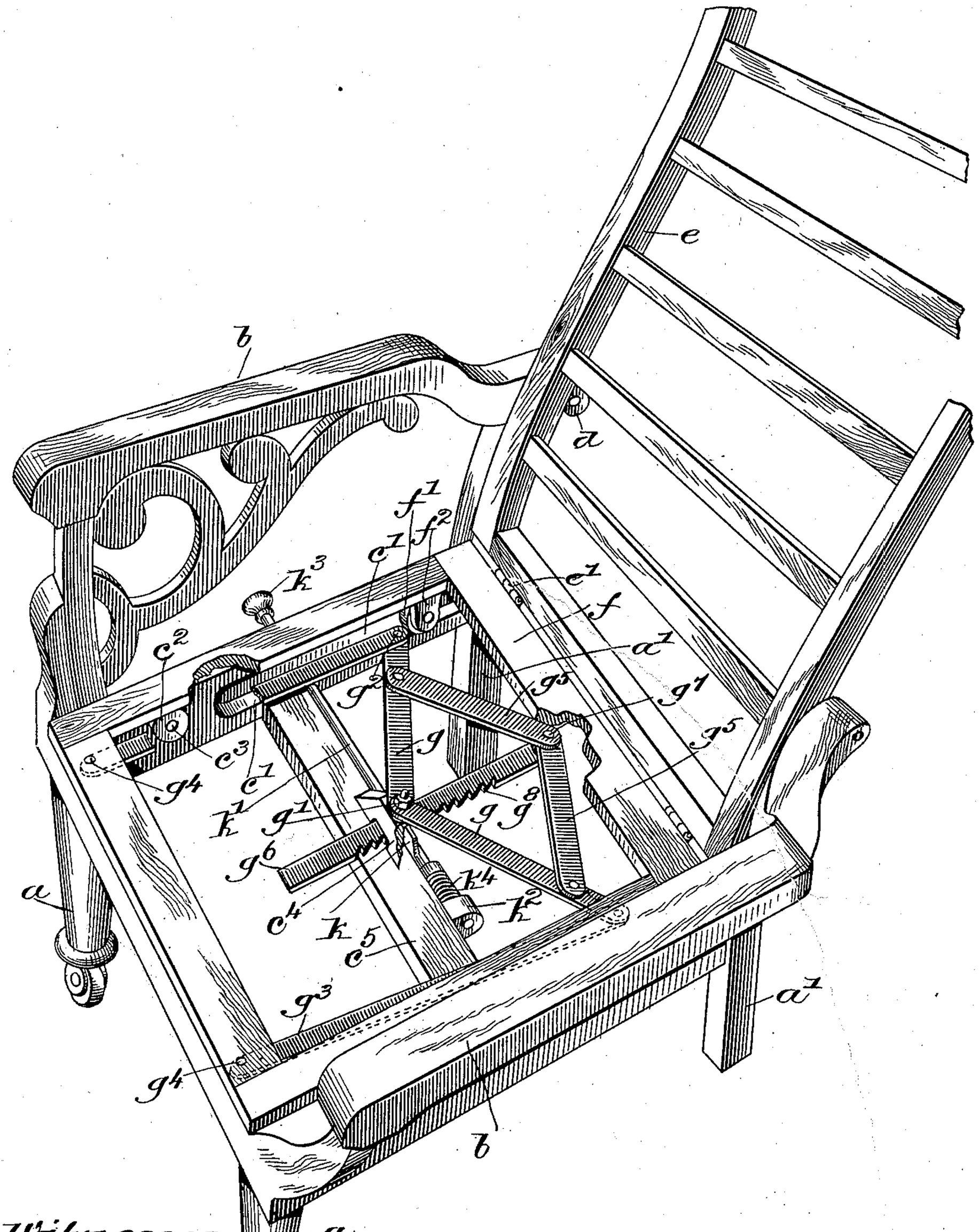
Patented Aug. 16, 1898.

G. A. GARLAND.

CHAIR.

(Application filed Aug. 18, 1897.)

(No Model.)



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UNITED STATES PATENT OFFICE.

GEORGE ALBERT GARLAND, OF MEDFORD, MASSACHUSETTS.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 609,389, dated August 16, 1898.

Application filed August 18, 1897. Serial No. 648,650. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ALBERT GARLAND, of Medford, county of Middlesex, State of Massachusetts, have invented an Improvement in Chairs, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

My invention is an improved chair or reclining-seat which may be readily adjusted to any position desired.

The object of my invention is to provide a chair having all the advantages of the usual reclining-chair—*i. e.*, a chair capable of having the angle between its seat and back changed to suit the requirements of its different occupants—and which at the same time shall be extremely simple in its mechanism and easily operated and shall also be smooth and regular in its operation, inexpensive in its manufacture, and extremely durable.

Many reclining-chairs have been heretofore provided and proposed; but so far I am aware they have all either required complicated or cumbersome mechanism to operate them which has been difficult for the usual purchaser to understand or liable to get out of order or which have been bulky in shape and ungainly in appearance. Accordingly I have done away with these objectionable features and have made a chair which is compact, neat, and as artistic as any usual chair, while at the same time affording all of the advantages which have long been desired.

My chair has extremely easy-running ways to permit the back and seat to be adjusted as desired, combined with means to insure the easy movement thereof and prevent any binding action of one side with the other as it is being adjusted and a locking device to fix the parts in their adjustment.

The further details of my invention will be set forth in the following description, and the invention will be defined in the appended claims, reference being had to the accompanying drawing, showing a preferred embodiment of my invention.

In the drawing the figure is a perspective view of the framework of the chair constituting my invention, the upholstery being omitted and parts being broken away in order to render the details of construction clear and easily understood.

My invention may be applied to various forms of chairs and, indeed, to other articles of household furniture. For the purpose of illustration and explanation I have herein shown it as applied to a heavy arm-chair, in which the legs a a' and arms b may be of any usual or preferred style.

In the base c, at either side of the chair, I provide ways c', said sides of the chair having rollers or friction-wheels c^2 at the forward end, mounted on fixed journals c^3 and provided, if desired, with ball-bearings in order to give greater freedom of movement. Similar wheels d are provided at the rear end of the arms to support the back e of the chair, which is hinged at e' to the seat f, the latter being movable therewith over the rollers c^2 at the forward end of the base and carrying similar rollers or wheels f', constituting retaining means, at its rear end, supported in brackets f^2, said wheels running in the ways c' provided therefor and already described.

From the above description it will be understood that the chair can be made reclining from the position shown simply by moving the seat forward, this movement drawing the lower end of the back forward, and therefore causing it to incline more or less.

If, however, the chair should simply be moved forward, as stated, one side thereof, if it were locked, as is usual, at one side, would be extremely liable to move slightly faster than the other and would therefore bind and eventually twist and loosen the joints, so as to render the chair inoperative and worthless in a short time. Accordingly I have provided a construction which brings all the strains of the chair at its center of movement, and which therefore tends to prevent the twisting and racking strains, for the reason that when the occupant sits in the chair a forward or backward movement on his part is received equally by the two sides of the seat. Said means are herein shown as comprising links g, fixedly pivoted at g' to a bracket c^4 on a cross bar or brace c^5 of the base of the chair, these links being pivoted at their free ends to links g^3 at g^2 and said links g^3 pivotally secured at their forward ends g^4 to the mov-

able seat, the links g having links g^5 pivoted thereto and to each other, the links g^5 at their common pivot being also pivoted to a ratchet g^6.

The ratchet g^6 works in the bracket c^4 at the middle of the chair, and its notches g^8 are normally engaged by a dog k on an operating-rod k', which works freely in a lug k^2 at one end, the other end thereof projecting through the base of the chair and being provided with a handhold k^3 at its end to be grasped by the occupant of the chair if he wishes to lower the same.

A spring k^4 is shown normally to hold the dog in engagement with the teeth of the ratchet.

I have described above minutely all the details of construction of my invention, although I wish it understood that I am not limited thereto, inasmuch as various modifications and substitutions may be resorted to without departing from the spirit and scope of my invention.

In operation the occupant of the chair, if he wishes to make the same more reclining, simply pushes in on the rod k' and allows the seat to slide forward to the required distance and then lets go of the rod, permitting its spring to lock the chair in its new adjustment, and a reverse movement of the chair—*i. e.*, sliding the seat backward—effects an opposite adjustment, bringing the back of the chair more nearly to a vertical position.

The rollers d, f', and c^2 permit the chair to run with the utmost freedom backward and forward, and the ways c', coöperating with the rollers f', insure that the parts cannot become disarranged or separated one from another.

The link movement g, &c., coöperating with the bracket c^4, prevent the two sides of the seat from being distorted and wedged by the strains on the back and seat and cause the back and seat to move in unison backward and forward and prevent their becoming wedged in any position.

I have shown the ratchet g^6 as provided with rearwardly-sloping teeth in order that they may click over the dog k as the seat is moved backward; but it will be understood that, if preferred, teeth may be substituted so that the chair may be moved in either direction without releasing the dog from the ratchet.

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

1. A reclining-chair having a fixed base and a movable seat and back, combined with a fixed support for the back over which it may move, coöperating recessed ways, and wheels traveling in and retained by said ways, to permit relative movement and prevent separation thereof, means to equalize the strains on said seat and prevent one side moving ahead of the other, and a locking device to lock the seat and back in their adjustment, substantially as described.

2. In a device of the class described, the combination with the seat or movable member and the fixed member, of means to equalize the strains on the former, said means comprising links secured at one end to said movable member and at their other ends connected with links pivoted thereto, said second links being pivoted at their meeting ends to and at the middle of said fixed member, a bar, and other links pivoted to said second links and to said bar, and a fixed guide at the middle of said fixed member for the free end of said bar, and a locking device coöperating with said bar to hold said parts in their relative adjustment, substantially as described.

3. In a device of the class described, the combination with the seat or movable member and the fixed member, of means to equalize the strains on the former, said means comprising links secured at one end to said movable member and at their other ends connected with links pivoted thereto, said second links being pivoted at their meeting ends to and at the middle of said fixed member, a bar, and other links pivoted to said second links and to said bar, a fixed guide at the middle of said fixed member for the free end of said bar, and a locking device coöperating with said bar to hold said parts in their relative adjustment, said locking device having an operating member extending beyond the fixed member to be readily grasped by the hand, substantially as described.

4. In a device of the class described, the combination with the seat or movable member and the fixed member, of means to equalize the strains on the former, said means comprising links secured at one end to said movable member and at their other ends connected with links pivoted thereto, said second links being pivoted at their meeting ends to and at the middle of said fixed member, a bar, and other links pivoted to said second links and to said bar, a fixed guide at the middle of said fixed member for the free end of said bar, said bar having ratchet-teeth, and a locking-dog to coöperate with said teeth to lock the parts in adjusted position, substantially as described.

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

GEORGE ALBERT GARLAND.

Witnesses:
GEO. F. GARLAND,
GEO. H. MAXWELL.