

S. C. EDDY.
ADJUSTABLE CHAIR.
APPLICATION FILED AUG. 22, 1910.

1,046,571.

Patented Dec. 10, 1912.

3 SHEETS—SHEET 1.

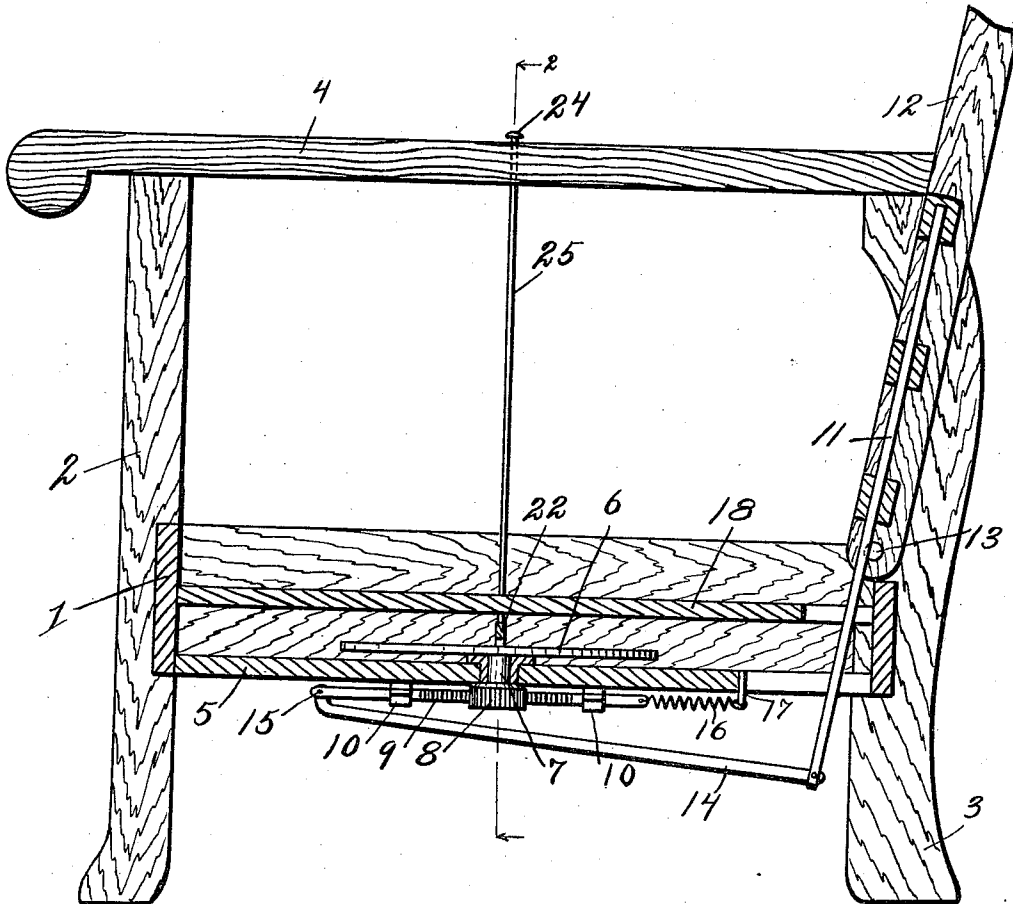


Fig. I.

Witnesses
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Margaret L. Glasgow.

Inventor
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By Chappell & Earl

Attorney

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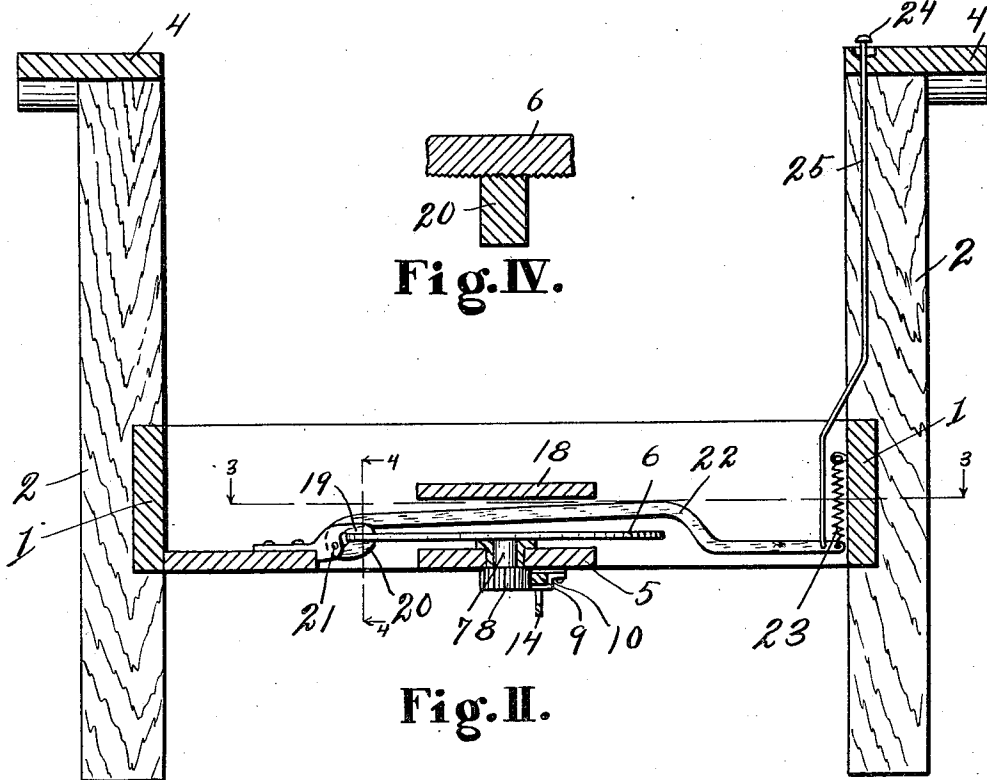


Fig. IV.

Fig. II.

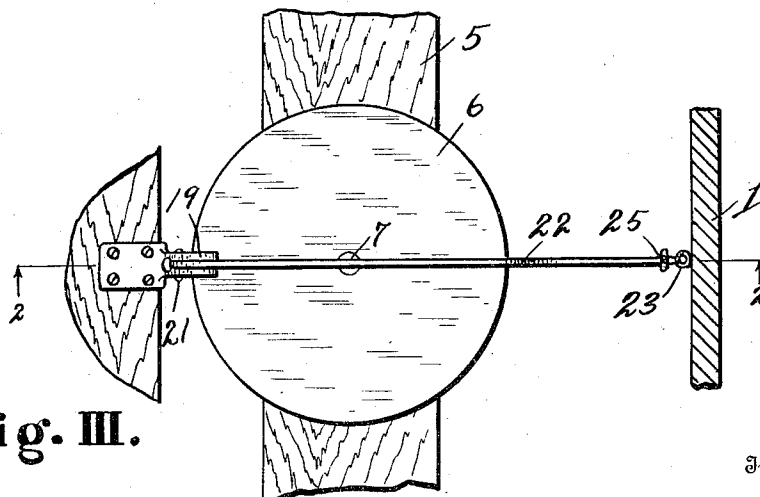


Fig. III.

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3 SHEETS—SHEET 3.

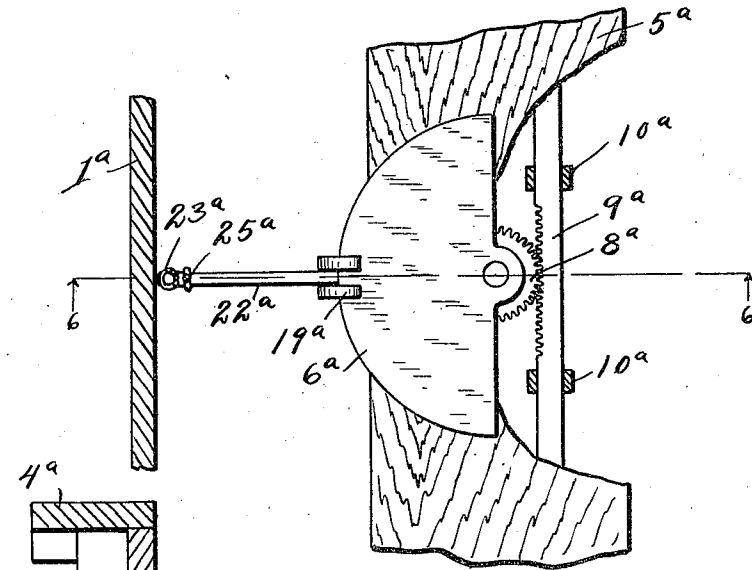


Fig. V.

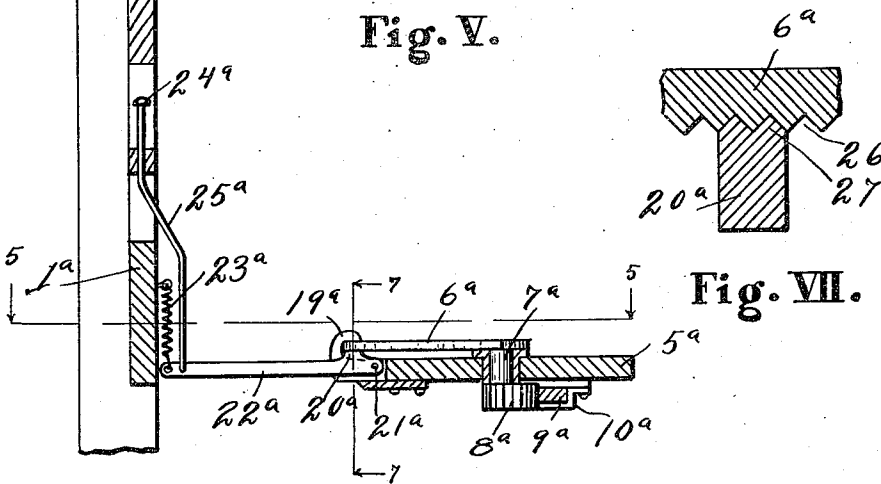


Fig. VII.

Fig. VI.

Witnesses
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UNITED STATES PATENT OFFICE.

SCHUYLER C. EDDY, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO JERROLD F. WATSON, OF STURGIS, MICHIGAN.

ADJUSTABLE CHAIR.

1,046,571.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed August 22, 1910. Serial No. 578,346.

To all whom it may concern:

Be it known that I, SCHUYLER C. EDDY, a citizen of the United States, residing at the city of Kalamazoo, county of Kalamazoo, and State of Michigan, have invented certain new and useful Improvements in Adjustable Chairs, of which the following is a specification.

This invention relates to improvements in adjustable chairs.

It relates particularly to chairs in which the backs are adjustable, somewhat after the manner of Morris chairs.

The objects of this invention are: First, to provide an effective means of adjusting such chair, which can be readily controlled by a push-button device and noiseless in operation. Second, to provide a simple and effective means for its adjustment, which shall be very secure.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure showing preferred embodiments of my invention, is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure 1 is a vertical longitudinal sectional elevation through a chair embodying the features of my invention. Fig. 2 is a transverse detail sectional elevation through the operative parts of my chair taken on line 2—2 of Fig. 1. Fig. 3 is a plan view of my improved chair on line 3—3 of Fig. 2. Fig. 4 is an enlarged detail sectional view taken on line 4—4 of Fig. 2, showing a toothed construction for added security on this reduced construction. Fig. 5 is a detail view of a modification of my improved structure in which a segment of the disk and a segment of the gear are illustrated in operation, the structure being condensed. Fig. 6 is a detail sectional view of this modification appearing in Fig. 5, taken on line 6—6 of Fig. 5. Fig. 7 is an enlarged detail sectional view taken on line 7—7 of Fig. 6, showing a toothed construction for added security on this reduced construction.

In the drawing, the sectional views are taken looking in the direction of the little

arrows at the ends of the section lines, and similar numerals of reference refer to similar parts throughout the several views.

Referring to the numbered parts of the drawing, 1 is a chair frame, 2 the rear legs, 3 the front legs, and 4 the arms.

5 is a bottom board or platform extending across the chair, which carries the adjusting disk 6, which is journaled at 7 in suitable bearings in the said platform. A pinion 8 is provided on the lower end of the journal 7 and meshes with the rack 9 which is carried in suitable guides 10 on the under side of the platform 5.

The back 12 of the chair is pivoted at 13, and extending through the slats of the same is a vertical rod 11, retained by friction therein. The rod 11 is connected by the link 14 to the forward end of the rack 9 by pivot 15. A spring 16 is secured to the rear end of the rack 9 and is connected to an arm 17 on the said platform and puts tension on the said rack whereby the tendency of the said spring causes the chair back 12 to swing forward on its pivot 13.

The edge of the disk 6 is smooth and is engaged by a clamping means which retains it in position. A decking 18 is over the disk to support the upholstering. The disk is controlled by a fixed jaw 19, which is in proximity to the same on its upper side, and the pivoted jaw 20, which is pivoted at 21 and coacts with the said fixed upper jaw. This pivoted jaw 20 is controlled by the lever 22 which is preferably made integral therewith, which lever 22 is urged upwardly by the spring 23 connected to the free end thereof, the upper end of said spring being suitably secured to the frame of the chair. It will thus be seen that the spring 23, urging the end of this lever upwardly, causes the jaw 20 to coact with the jaw 19 and bite the disk 9 and retain it very securely.

I provide a push-button 24, preferably above the arm of the chair, which is connected by the push rod 25 to the said lever 22, so that by pressing on this button the chair will be released. A very slight pressure will do this because the disk is smooth and the same will rotate noiselessly, and the user of the chair will have the same under complete control.

It is, of course, not necessary to make the disk a complete disk, but the same can be made a segment of a disk, as appears in the

modification in Figs. 4 and 5, in which event, also, the segment 6^a being there shown corresponds to the disk 6 of the preferred construction. A segment gear 8^a is made use
 5 of in place of the pinion 8, and a rack 9^a meshes therewith and is suitably guided in guiding loops 10^a on the underside of the platform 5^a of that modification. By corrugating the edge of the disk 6^a, by corrugations or
 10 notches 26, the lever 22^a, pivoted at 21^a and forming a jaw 20^a, engages the same very securely and the same can be effectively controlled by a push-button 24^a which need not necessarily extend above the arm of the
 15 chair, and is connected by push rod 25^a to the said lever 22^a. The lever 22^a is urged upwardly by a spring 23^a, exactly after the manner in the preferred construction.

I have described my invention in detail, and its operation will be very readily understood. The preferred form is to have the disk smooth, although the toothed form is very effective but causes a slight noise in operation which is objectionable in goods of
 20 the highest grade. The notches can be made very slight and this noise be avoided and great security thus secured.

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

1. In a chair with a pivoted adjustable back, the combination of a suitable platform; a disk supported thereon on a suitable journal; a pinion on the said journal; a rack meshing with said pinion, suitably guided underneath the said chair to reciprocate back and forth; a spring for urging the rack rearwardly; a lever arm connected to the back of the chair; a link connection
 35 from the said lever to the said rack; a clutch for engaging the edge of said disk; a spring lever for controlling the said clutch; and a

push button connected for actuating the said lever, all coacting substantially as described and for the purpose specified. 45

2. In a chair having a pivoted adjustable back, the combination of a suitable disk; a journal for the said disk; a pinion carried by the said disk; a rack meshing with the said pinion arranged to reciprocate back
 50 and forth underneath the said chair, a lever connected to the said pivoted back; a link between the said lever and the said rack; a suitable clutch for engaging the said disk; and a push button for controlling the said
 55 clutch, coacting for the purpose specified.

3. The combination with a chair having an adjustable back, of a disk or plate journaled in the bottom of said chair on a vertical pivot; connections including a link and
 60 lever from the said disk to the back of the said chair for controlling the same; a clutch for engaging the said disk; and a suitable push button connection to the said clutch for manipulating the same by hand, coact-
 65 ing for the purpose specified.

4. The combination with a chair having an adjustable back, of a disk or plate journaled in the bottom of said chair; connections including a link and lever from the
 70 said disk to the back of the said chair for controlling the same; a clutch for engaging the said disk; and a suitable push button connection to the said clutch for manipulating the same by hand, coacting for the purpose specified. 75

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

SCHUYLER C. EDDY. [L. s.]

Witnesses:

MARGARET L. GLASGOW,
 M. PHINA WOODRUFF.

It is hereby certified that Letters Patent No. 1,046,571, granted December 10, 1912, upon the application of Schuyler C. Eddy, of Kalamazoo, Michigan, for an improvement in "Adjustable Chairs," were erroneously issued to "Jerrold F. Watson," whereas said Letters Patent should have been issued to *Jerrold F. Walton*, as shown by the records of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 22nd day of June, A. D., 1915.

[SEAL.]

J. T. NEWTON,
Acting Commissioner of Patents.