(No Model.)

A. KANE.

RECLINING CHAIR.

No. 551,968. Patented Dec. 24, 1895.

Fig.1

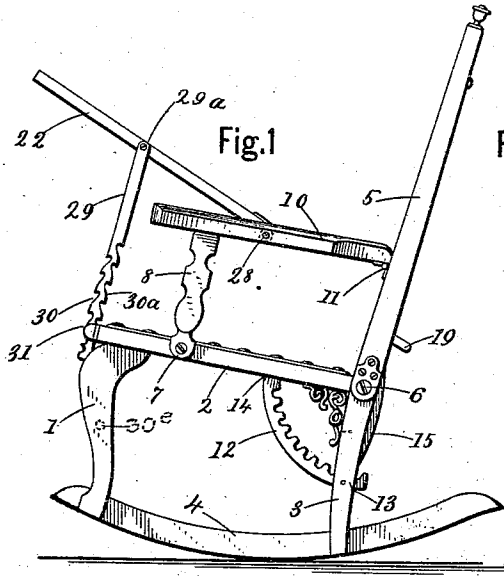


Fig.2

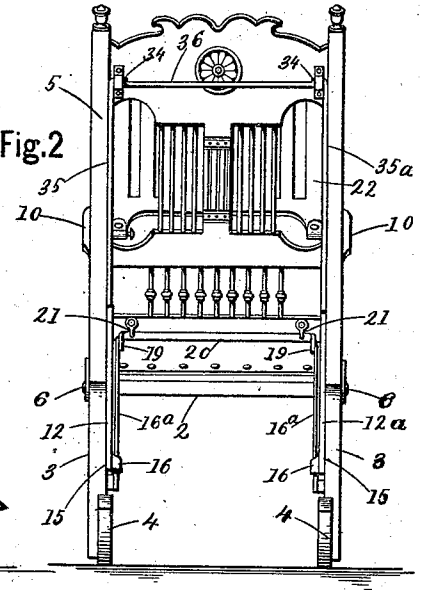


Fig.3

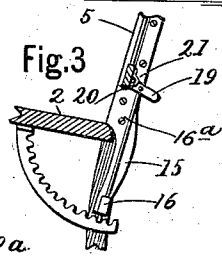


Fig.3a

Fig.4.

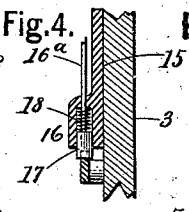


Fig.4a

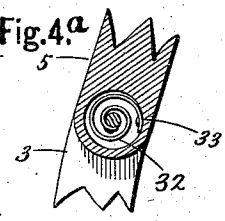


Fig.5.

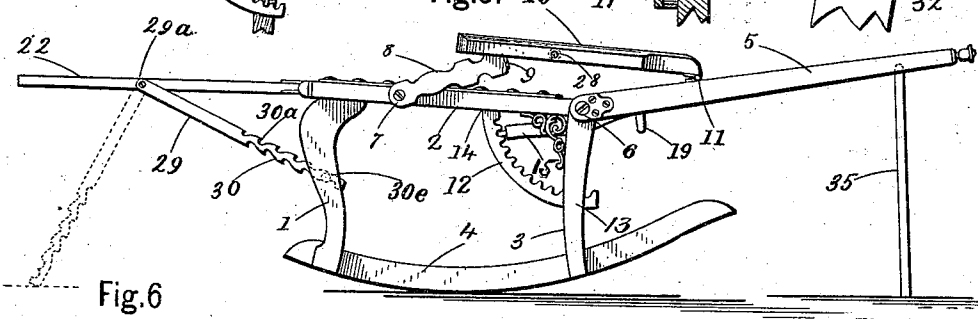


Fig.6

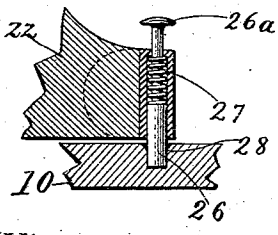


Fig.7.

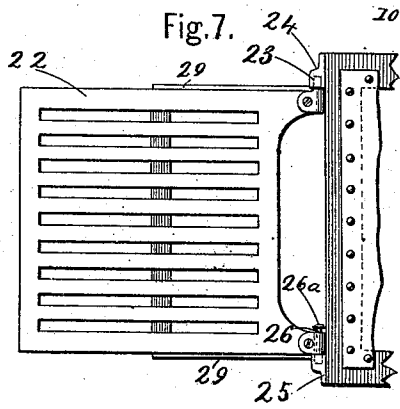
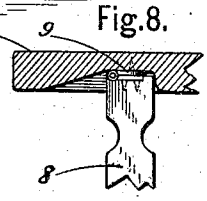


Fig.8.



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UNITED STATES PATENT OFFICE.

ALBERT KANE, OF BUFFALO, ASSIGNOR TO SEWARD T. KANE, OF HOLLAND PATENT, NEW YORK.

RECLINING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 551,968, dated December 24, 1895.

Application filed May 23, 1894. Serial No. 512,171. (No model.)

To all whom it may concern:

Be it known that I, ALBERT KANE, a citizen of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Reclining-Chairs, of which the following is a specification.

My invention relates to that class of chairs adapted for use as an ordinary rocking-chair, a reclining-chair, or as a bed or lounge, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the chair, showing the front removable platform adjusted for holding a book or other article for reading or for other purposes for which a book-rest may be adapted. Fig. 2 represents a back view of the chair, showing a similar view of the mechanism for adjusting it for a reclining-chair. Fig. 3 is a sectional elevation of a portion of the chair, cutting through a rear portion of the chair-seat and cross-bar, showing the mechanism for releasing or holding the chair-back. Fig. 3ª represents a face view of one of the chair-arm hinges, showing the pivotal portion of the hinge. Fig. 4 is an enlarged sectional elevation through one of the rear chair-legs, showing the construction of one of the bolts and springs for engaging with the rack-bars and holding the back of the chair to any point to which it may be adjusted. Fig. 4ª represents a sectional elevation showing the chair-back joint-spring for preventing the back from suddenly falling backward when released. Fig. 5 is a side elevation of the chair, showing it adjusted in position for use as a reclining-chair, the dotted line double rack-bar showing its position when the chair is adapted to be used as a bed. Fig. 6 is an enlarged horizontal section through that portion of the removable platform in which is located the spring-bolt for securing it either to the front of the chair-seat or the chair-arm, showing, also, a section through that portion of the chair-arm in which the bolt engages and the construction of the spring-bolt. Fig. 7 represents a plan view of the removable platform and a portion of the chair-seat, showing the manner of its attachment to or detachment therefrom. Fig. 8 represents a longitudinal section through a portion of one of the arms of the chair, showing a portion of one of the upright or substantially upright supporting-bars of the chair and the means by which it is jointed or hinged thereto.

The frame of the chair is preferably constructed of wood, being the usual material; but any other suitable material may be used.

1 represents the front legs of the chair. They are constructed and secured to the seat 2 in the ordinary way.

3 represents the rear legs and 4 the rockers, attached in the usual manner. In this connection I have shown a rocking-chair for illustration, but any other kind of chair suitable for the purpose may be used.

To the rear of the chair-seat 2 is secured the chair-back 5 by pivots 6, one at each side of the chair, (see Figs. 1, 2, and 5,) and near the forward portion of the seat, at each side, directly opposite each other, is pivoted by pivots 7 the upright supporting side bars 8, and to their upper ends is hinged by hinges 9 the arms 10 of the chair, (see Fig. 8,) the opposite ends of said arms being hinged to the back of the chair by hinges 11. (Shown in Figs. 1 and 5.)

The bottom of the chair is made as any ordinary chair, wider at the front than at the back. Consequently—as in adjusting it to the position shown in Fig. 5, for instance—there is a slight lateral or side movement imparted to the chair-arms 10. To meet this movement, one-half of each of the hinges 9 and 11 is provided with a screw-hole 11ᵉ, (see Fig. 3ª, where this is shown,) one large screw only being used at that side, so that the hinges may turn toward either side thereon.

The mechanism for operating the chair-back, and securing it at any point to which it may be adjusted, consists of two rack-bars 12 and 12ª. (See Figs. 1, 2, and 5.) The rack-bars are each secured at one end to the inner sides of the rear legs of the chair by screws at or about the point 13, their other ends being secured to the under side of the seat at or about the point 14 by screws.

To each of the back-frame bars of the chair is rigidly secured a downwardly-projecting

bar 15, having a socketed portion 16 at the bottom, reference being had to Figs. 2, 3, and 4. In each socketed portion 16 is a bolt 17, having a connecting-rod 16^a at its upper end, (shown in Figs. 2, 3, and 4,) its lower end being adapted to fit between the teeth in the curved rack-bars 12 and 12^a. (See Figs. 3 and 5.) Above the bolt 17 is interposed between the top of the socket and the bolt a spiral spring 18. (See Fig. 4, where this is shown in the sectional view.) The upper ends of the connecting-rods 16^a are each pivoted to a crank-arm 19. Each crank-arm 19 is either made in one integral piece with the cross-bar 20, (shown in Figs. 2 and 3,) or they may be rigidly attached to it. The cross-bar 20 is pivoted to the back of the chair by the hook portions 21, (see Figs. 2 and 3,) so it can turn thereon. From the above-described construction it will be seen that the springs 18, when free to act, will hold the bolts 17 down in engagement with the teeth in the curved rack-bars, from which they may be withdrawn when it is desired to incline the back of the chair, and it will be noticed that as the crank-arms 19 are both rigidly secured to the cross-bar 20 when one is moved out of or into engagement with a rack-bar the other will move simultaneously with it and engage with or be disengaged from the other rack-bar.

The removable platform 22 is adapted to be used either as a foot-rest, book-rest, or for lengthening the chair when used as a lounge or bed.

On the inner side of the platform 22, near one corner, is rigidly secured a laterally-projecting pin 23. (Shown by dotted lines in Fig. 7.) This pin 23 is adapted to fit in a socket-piece 24 at the front side, near one corner of the chair. (Also shown in Fig. 7.) At the opposite front side, near the other front corner of the chair, is another similar socket-piece 25 rigidly secured thereto. Near the corner opposite to that carrying the pin 23 the platform is provided with a spring-bolt 26, the construction of which is more clearly shown in the enlarged sectional view, Fig. 6. The bolt 26 is provided with a spring 27, by which it is kept in place in the socket. At the inner side of each arm 10 of the chair is a socket 28, in one of which the pin 23 fits, and in the other the bolt 26 fits when drawn back and allowed to spring in. The platform is then secured in the position shown in Figs. 1 and 2. The bolt 26 is easily released from the socket in which it is fitted by pulling on the knob 26^a, as will be readily understood.

The platform is provided with two bars 29, pivoted directly opposite each other at the point 29^a and provided with a double series of ratchet-teeth, one on each opposite side 30 and 30^a. These bars support the platform when it is used as a book-rest, as in Fig. 1, the rack-teeth 30^a resting at or about the point 31 at the front of the chair and allowing it to be adjusted up or down, as may be desired.

In the socket around pivot 6, at each side of the chair-back, is a coiled spring 32. (See Fig. 4^a.) This spring is fastened securely to the pivot 6, so that it cannot turn the pivot 6, being rigidly secured, in any well-known way, to the chair-leg. The opposite end of the spring 32 is secured to the side of the chair-back socket by a screw at or about the point 33. The object of this construction is to prevent the chair-back from suddenly falling back should the bolts in the rack-bars be accidentally loosened.

At the back of the chair is pivoted in small boxes or holding-pieces 34 (see Fig. 2) two supporting-legs 35 and 35^a. The cross-bar 36 and these legs are all formed in one piece, so that when one moves the other moves. These legs when not in use are moved in between the two frame-pieces composing the back of the chair, as shown in Fig. 2, and when the chair is used as a bed they are turned out to support the head of the bed, as in Fig. 5. It will be noticed that the pivoted bars 29 are provided with a double series of rack-teeth 30 and 30^a. The teeth 30^a support the platform when used as in Fig. 1, and the teeth 30 rest on pins 30^c, as shown in Fig. 5, where the platform is supported as a foot-rest.

I claim as my invention—

In a reclining chair, a removable platform having a spring bolt at one corner, a rigid pin at the opposite corner and two rack bars, one pivoted to each side of the platform, each having a double series of rack-teeth, located at opposite sides of the bars, in combination with the chair seat and arms, two socketed portions located at opposite front corners of the chair seat, and a socketed portion on the inner side of each chair arm, substantially as described.

ALBERT KANE.

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