Feb. 7, 1939. N. ZIMTBAUM 2,146,520

RECLINING CHAIR

Filed May 12, 1937

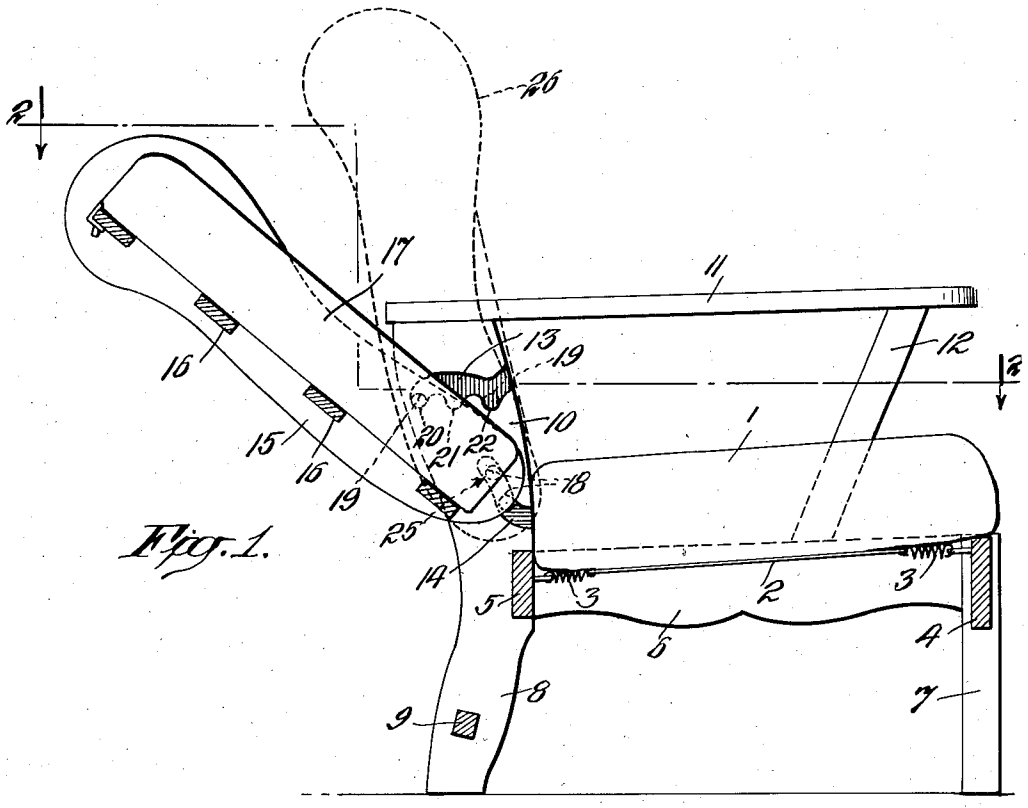


Fig. 1.

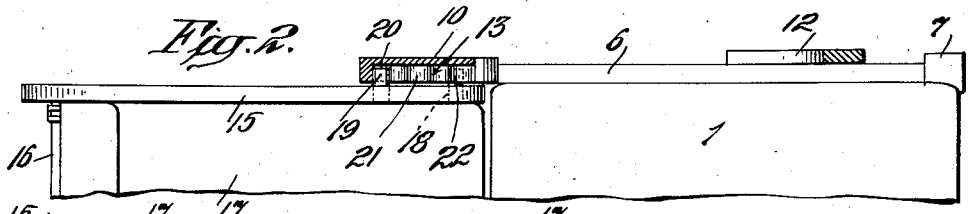


Fig. 2.

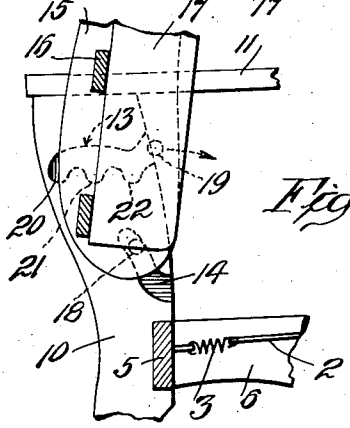


Fig. 3.

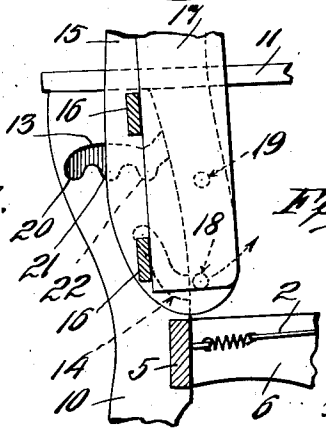


Fig. 4.

INVENTOR
NATHAN ZIMTBAUM
BY Julius Hirt
ATTORNEY

Patented Feb. 7, 1939 2,146,520

UNITED STATES PATENT OFFICE

2,146,520

RECLINING CHAIR

Nathan Zimtbaum, New York, N. Y.

Application May 12, 1937, Serial No. 142,134

1 Claim. (Cl. 155—160)

This invention relates to an improvement in reclining chairs and has for its object the provision of a simple, sturdy and effective means whereby the back of the chair may be positioned at various angles with respect to the seat and will, in each position of adjustment, be firm and secure.

More particularly, the invention contemplates the provision of a chair of this character provided with a simple arrangement of slots and guide pins by which any position of the back of the chair may be selected and securely held.

A further object of the invention is to provide a reclining chair of the character described wherein the movable back of the chair may be easily detached when desired from the body of the chair without the use of tools or dismantling of parts of the chair.

In the accompanying drawing wherein an embodiment of the invention is shown, Fig. 1 is a vertical sectional view through the chair showing the means for holding the back in various selected positions of adjustment; Fig. 2 is a sectional view on the line 2—2 of Fig. 1, looking in the direction of the arrows; Fig. 3 is a detailed view in section of a portion of the frame of the chair showing the guide grooves and the manner in which the pins are moved therein to remove the back of the chair from its connection with the chair body; and Fig. 4 is a view similar to Fig. 1 showing the back removed from its engagement with the body or end member of the chair.

In the drawing, 1 indicates the seat cushion of the chair, the same being of any suitable construction and being supported upon straps 2 which are engaged by the springs 3 attached to the longitudinal rails 4 and 5 of the chair frame. The longitudinal rails 4 and 5 co-operate with end members 6 and legs 7 and 8 to form the chair frame. The rear legs 8 are connected by bar 9 and extend upwardly to form arm portions 10 to the top of each of which is attached an arm 11 supported near its front end by the upright 12. The elements thus far described constitute the body of the chair, and it will be understood that the same may be made in various ornamental forms to suit different requirements of design in furniture construction.

The two spaced, vertically disposed arm or frame end portions 10 are each provided with a pair of grooves 13 and 14. The back of the chair is formed of end members 15 connected by the slats 16 which support the back cushion 17 in a manner well understood in furniture construction. Extending laterally from each of the end members 15 of the back, are two guide pins 18 and 19. The lower pin 18 is adapted to enter into the lower groove 14 and be guided thereby. Upper groove 13 is provided in its lower face with several spaced recesses indicated at 20, 21 and 22, and guide pin 19 is adapted to be selectively introduced into one or the other of these recesses to thereby hold the back 15 in any desired inclined position of adjustment. The grooves 13 and 14 are each open at their inner end to permit the introduction of the guide pins 18 and 19 into them or the quick removal of the back of the chair from its engagement with these grooves whenever desired in a manner to be hereinafter pointed out.

In Fig. 1 the back of the seat is shown in its position of greatest inclination where it will be noted that guide pins 19 are each positioned in the rearmost recess 20 of the grooves 13. Pin 18 is at this point located well up in the groove 14, or in the position indicated at 25 in Fig. 1. As the groove 14 extends upwardly and has its upper closed end located adjacent to the recessed surface of the upper groove, it prevents any tendency of the lower end of the chair back to swing forward and thus by the co-operation of the pins 18 and 19 with their respective grooves, the back is securely held in the position of inclination clearly shown in Fig. 1. To adjust the chair back to a more vertical position, it is swung forward to cause its pins 19 to seat in the recesses 21 of grooves 13. This is done by elevating the seat slightly to move pins 18 upwardly in groove 14 and at the same time raise pins 19 out of the recesses 20. When the back is thus elevated, it is swung forward slightly on pins 18 as pivots and then lowered to bring pins 19 into recesses 21, at the same time causing pins 18 to be lowered slightly in grooves 14. A still more vertical position of adjustment of the back, such as indicated in dotted lines 26 of Fig. 1, is had by seating pins 19 in recesses 22.

When it is desired to completely remove the back from the chair, this is done by moving the seat back slightly upwardly to cause the pins 19 to be raised out of the various grooves 20, 21, and 22 and then the entire back is swung forwardly in the direction of the arrow as shown in Fig. 3 to move pins 19 completely out of the open ends of the grooves 13. The position of the parts at this time is that shown in Fig. 3. When the pins 19 are moved completely out of the grooves 13, the entire back may then be lowered, thereby causing pins 18 to move downwardly and finally

forwardly out of the open ends of their guide grooves 14. In the completely released position of the back as shown in Fig. 4, both sets of pins 18 and 19 are separated from their guide grooves 14 and 13 respectively, and the back may then be lifted away.

In replacing the back, the procedure just described is reversed. That is to say, pins 18 are first introduced into grooves 14 and the back is then raised to align pins 19 with the open ends of grooves 13 whereupon the back is swung rearwardly to introduce pins 19 into grooves 13 and thereafter placed in any of the selected recesses 20, 21 and 22 to hold the back in any desired position of inclination.

With the arrangement shown, the back of the chair may be set in any selected inclined position and will firmly and securely remain therein until changed. No projecting parts are provided and the simple arrangement of guide pins and grooves herein described enables the chair to function indefinitely and be used with a great deal of satisfaction.

What I claim is:

In a reclining chair structure, a chair frame having end members, each of said members having an inner face provided with a pair of grooves, one of said grooves in each pair being located above its companion groove, all of the grooves being open at their inner ends, the lower face of the topmost groove in each pair being formed with several spaced recesses, a chair back having a projecting guide pin adapted to be positioned in any one of said recesses, the lowermost groove of each pair being upwardly curved toward its upper companion groove and having a closed upper end located nearer to the upper groove than is the open end of said lowermost groove, the chair back having a second guide pin for engagement with the lowermost groove, the relative positions of the guide pins being such that when the first guide pin is disposed in any one of the recesses in the upper groove, the second pin will be disposed near the upper closed end of the lower groove, both of the pins being removable from their respective grooves and movable out of the open inner ends of said grooves to thereby disengage the chair back from the chair frame.

NATHAN ZIMTBAUM.