

(No Model.)

2 Sheets--Sheet 1.

W. DANIELS.
CHAIR.

No. 530,092.

Patented Dec. 4, 1894.

FIG. 2.

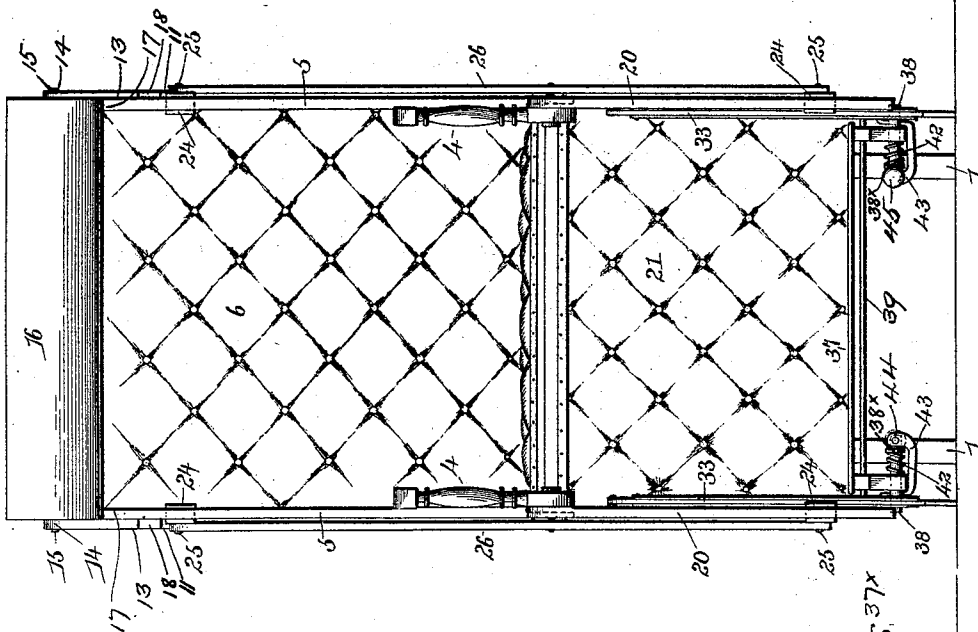
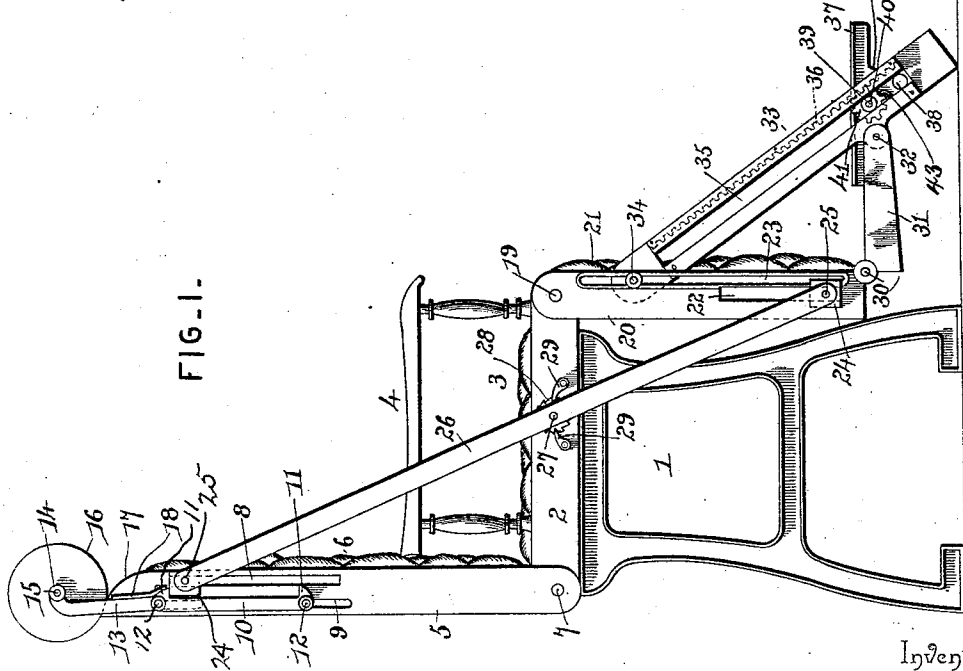


FIG-1.



Inventor

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Witnesses

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By *his* Attorneys.

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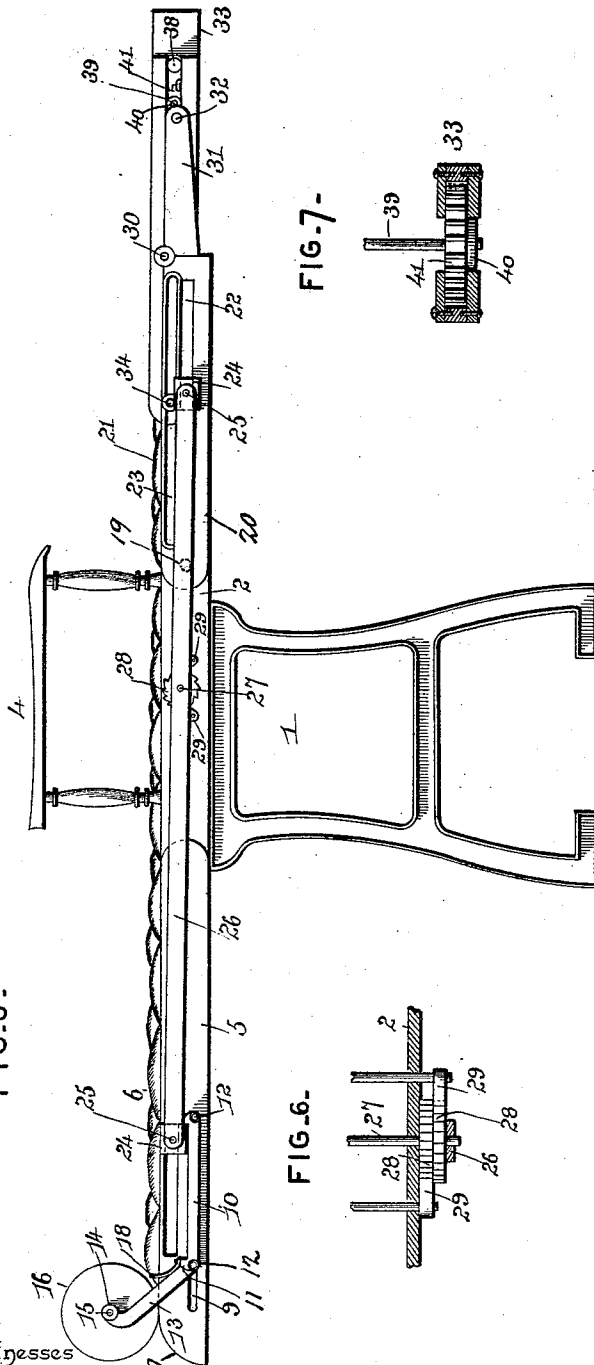


FIG-7-

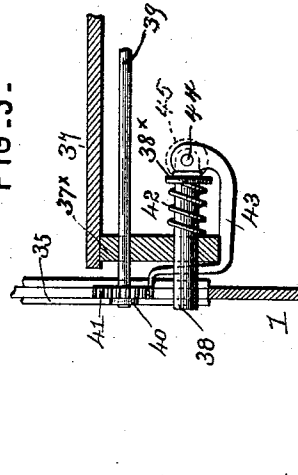
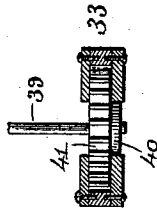


Fig. 5.

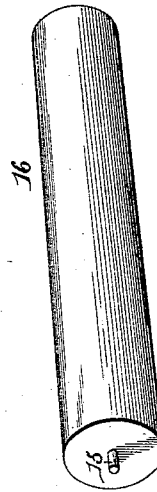


FIG-4-

Inventor

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UNITED STATES PATENT OFFICE.

WALLEN DANIELS, OF FORT SMITH, ARKANSAS.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 530,092, dated December 4, 1894.

Application filed August 19, 1893. Serial No. 483,541. (No model.)

To all whom it may concern:

Be it known that I, WALLEN DANIELS, a citizen of the United States, residing at Fort Smith, in the county of Sebastian and State of Arkansas, have invented a new and useful Chair, of which the following is a specification.

My invention relates to improvements in reclining chairs; and the objects in view are to provide a chair of cheap and simple construction that may be conveniently disposed in various positions to suit the occupant and render him comfortable.

With these and various other objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a side elevation of a chair constructed in accordance with my invention, the same being in its ordinary position. Fig. 2 is a front elevation thereof. Fig. 3 is a side elevation, the chair being extended to serve as a couch or bed. Fig. 4 is a detail in perspective of the head-rest. Fig. 5 is a sectional view of the foot-rest. Fig. 6 is a horizontal sectional view of Fig. 1 above the ratchet and opposite pawls and through the side-bar of the chair. Fig. 7 is a transverse sectional view through the spur-gear at one end of the foot-rest and its guide.

Like numerals of reference indicate like parts in all the figures of the drawings.

Supported upon suitable standards 1 are the opposite frame-bars 2 composing the seat section 3. From the bars 2 rise the arms 4, which are of the usual construction.

To the rear ends of the bars 2 the side bars 5 of the back-section 6 are pivoted as at 7, and said bars 5 are provided near their upper ends with pairs of front and rear slots 8 and 9 respectively.

To the opposite sides of the bars 5 sliding plates 10 are applied, the same being provided at their upper and lower ends and at their inner edges with stops or shoulders 11. Bolts 12 pass through the plates 10 into the slots 9 and serve to retain the plates in position. To the upper bolts 12 of these plates arms 13 are pivoted, and the same terminate at their outer ends in bearings 14, which receive the journal 15 upon which is mounted the revoluble head-rest 16 which is designed

to move over the upper rounded ends 17 of the bars 5. A flat spring 18 is secured to the upper stop 11 of each of the plates 10 and rests upon the edges of the arms 13, thus retaining the revoluble head rest 16 upon the curved edges of the said bars 5.

Pivoted as at 19 to the front ends of the seat bars 2 are the suspension bars 20, and the same carry upholstering 21 thereinbetween. The bars 20 are provided with inner and outer slots 22 and 23 respectively. In the slots 22 of the bars 20 and the slots 8 of the bars 5 sliding blocks 24 are located, and pivoted to these blocks as at 25 are opposite connecting rods 26, which at their intermediate portions are pivotally connected to the bars 2 by studs 27. The bars have secured upon their inner faces oppositely toothed ratchet wheels 28, and pivoted gravity pawls 29 are secured to the opposite sides of the seat frame and engage therewith.

Hinged as at 30 to the lower ends of the bars 20 are the extension bars 31, and the same are pivotally connected as at 32 to the inclined bars 33 whose upper ends have pins 34 extending from their outer faces and mounted for movement in the slots 23. The inclined bars 33 are slotted between their ends as at 35, and at their inner sides are provided with rack-bars 36.

37 designates the foot rest, and the same is provided at its ends with depending portions 37^x through which extend fixed pins 38, that move in the slots 35; and with a transverse shaft 39, having anti-friction rollers 40 at its ends that extend into the slots 35 and at the inner sides of which cog-wheels 41 are located, the latter moving in grooves formed in the rack-bars 36. Coiled springs 42 are located upon the pins and interposed between the depending ends of the foot-rest and loose washers 38^x, and pivoted to the inner ends of the pins are curved latches 43 that are so influenced by the springs that their outer ends are normally in engagement with the cog-wheels, whereby the latter are locked against rotation in the rack-bars 36. The latches are pivoted in position upon shafts 44 having knobs 45 by which they are operated to disengage the latch and permit of an adjustment of the foot-rest. This completes the construction of the chair.

When the chair is in the position shown in Fig. 1 it will be seen that the upper blocks 24 abut against the upper shoulder 11 and the plates 10 have been moved upward in the slots 9, and the springs 18 pressing the arms 13 backward have caused the head-rest to roll over the upper rounded ends of the bars 5 of the back until said head-rest is substantially in line with the back.

It will be seen that the chair is locked against any displacement by the pawls 29 engaging the ratchet wheels 28. The foot-rest is adjusted in the manner heretofore stated, and it will be seen that the same may be drawn out to any extent desired, such operation being secured by moving the foot-rest up or down in the inclined bars 33, the latter being given any desired inclination, and at their lower ends resting upon the floor. Of course the back may be adjusted at any angle, the pawls 29 being temporarily disconnected from their ratchet wheels to permit of such adjustment. Again it will be seen, as shown in Fig. 3, the chair may be arranged in a horizontal position to serve as a bed or couch, the back-section, seat-section, foot and intermediate sections all being in a horizontal plane. When bringing the parts to this position the blocks 24 moving down the slots 8 come in contact with the lower shoulders 11 of the plates 10, so that these plates are drawn inward and the head-rest made to rotate down the rounded ends of the bars 5 of the back section, so that the said rest lies across said section in the manner shown in Fig. 3 and serves as a pillow therefor. Thus, it will be seen, that the foot and back sections and the head-rest are adjusted simultaneously and proportionately by the adjustment of the side-bars, which are within reach of the occupant of the chair, and that when said side-bars are locked, the said foot and back sections and the head-rest are secured in their adjusted positions.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a very simple construction of chair that may be securely locked in a convenient manner in any desired position and adapted to serve as an ordinary chair, a reclining chair, or as a couch or bed.

I do not limit my invention to the exact details of construction herein shown and described, but hold that I may vary the same to any extent and degree within the knowledge of the skilled mechanic.

Having described my invention, what I claim is—

1. The combination with a stationary seat section and foot and back sections hinged respectively to the front and rear edges of the seat sections, of side bars pivotally mounted at intermediate points upon the sides of the seat section and slidably connected at their extremities respectively to the back and foot sections, means for locking said side bars at the desired inclination, plates slidably

mounted upon the sides of the back section adjacent to its upper edge, arms pivotally connected to said plates, a headrest journaled in the outer extremities of said arms, and connections between the sliding plates and the upper ends of the side-bars, whereby the foot and back sections and the head-rest are adjustable simultaneously and proportionately by the adjustment of the side bars, substantially as specified.

2. In a reclining chair, the combination with the standards, the stationary seat frame and the front and rear pivoted sections, the side bars of which are provided with slots, intermediate connecting rods pivoted to the sides of the seat section, blocks mounted for sliding in the slots and pivoted to the ends of the rods, and means for locking the rods at any inclination, of sliding plates arranged at the opposite sides of the back section, shoulders formed upon the plates at opposite sides of the upper blocks and in the path thereof, and a rotatable headrest supported by said plates on the upper end of the back, said back being rounded, substantially as specified.

3. In a reclining chair, the combination with the standards, the stationary seat section, the back and foot sections pivoted thereto, the side bars thereof being provided with slots, the opposite connecting rods pivoted to the seat section between their ends and loosely connected at their ends with the slots, of means for locking the rods at any inclination, slots in the bars of the back section in rear of the slots to which the connecting rods are connected, plates arranged at the sides of the last named slots, bolts extending through the plates and into the slots, shoulders at the upper and lower ends of the plates, arms pivoted on the upper bolts, a rotatable headrest having its axle journaled in the bars and mounted for rotation over the upper rounded ends of the bars of the back, and springs secured to the plates and bearing on the arms, substantially as specified.

4. In a reclining-chair, the combination with the opposite inclined bars, slotted and grooved and having at one side of the latter cog-teeth, of the foot-rest having depending ends, a transverse shaft and fixed studs or pins passing through said ends and extending into the slots, anti-friction rollers on the ends of the shaft, cog-wheels at the inner sides of the rollers and engaging the cog-teeth, knob carrying shafts pivoted in the studs or pins, latches located thereon and at their outer ends engaging the cog-wheels, and springs and washers located on the studs or pins and interposed between the latches and the ends of foot-rest, substantially as specified.

5. In a reclining chair, the combination with the stationary seat section and its supporting standards, of the hinged section having the bars 20 provided with slots 23, the extension section 31 hinged as at 30 thereto, slotted inclined bars hinged as at 32 to the extensions and having the bolts 34 passing

through their upper ends, and the slots 23, the foot-rest, projections extending from the foot-rest into the slots of the inclined bars, and means for securing the foot-rest at any point within the slots, substantially as specified.

6. In a reclining chair, the combination with a seat and its standards, of the bars 20 pivoted thereto, extensions 31 pivoted as at 30 to the bars 20, the slots 23 formed in the bars 20, the inclined bars 33 slotted as at 35 and loosely pivoted to the outer ends of the extensions, the bolts 34 passing through the upper ends of the inclined bars and through

the slots 23, the rack-teeth formed on the bars 33, the foot-rest 37, the shaft extending from the foot-rest into the slots of the inclined bars, the cog-wheels on the shaft, and the pivoted latches arranged under the foot-rest and engaging the teeth of the cog-wheels, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WALLEN DANIELS.

Witnesses:

A. H. BOLES,
ROSCOE BOLES.