

(No Model.)

J. J. HOGAN.
RECLINING CHAIR.

No. 469,569.

Patented Feb. 23, 1892.

Fig. III

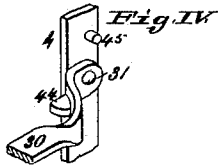
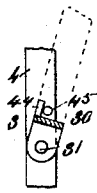


Fig. I

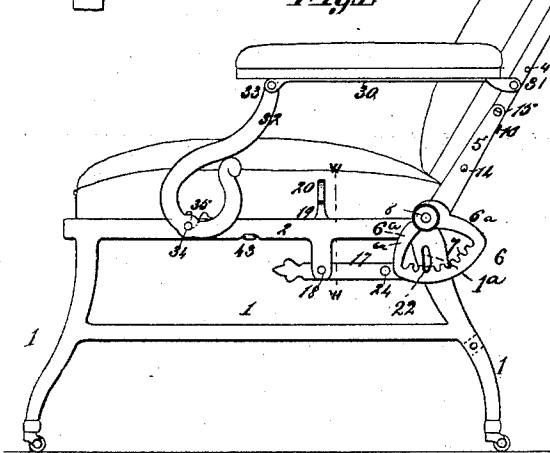


Fig. II

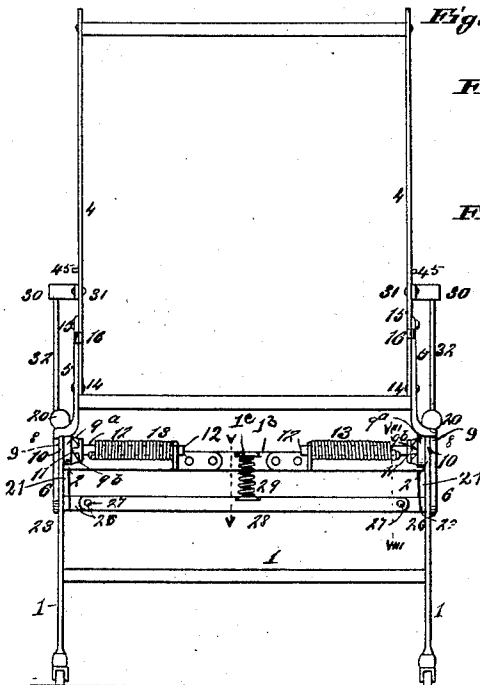


Fig. XII



Fig. XIII



Fig. V

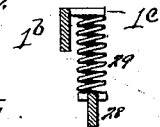


Fig. VI

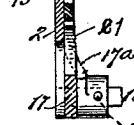


Fig. VII



Fig. VIII

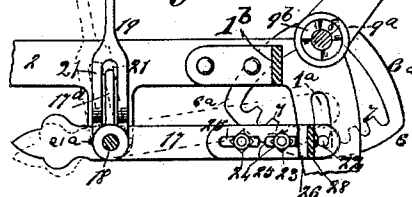


Fig. IX

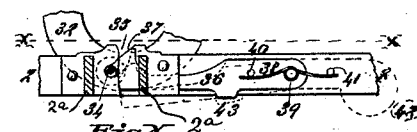


Fig. X

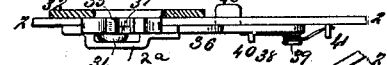


Fig. XI

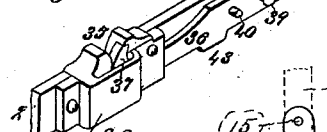
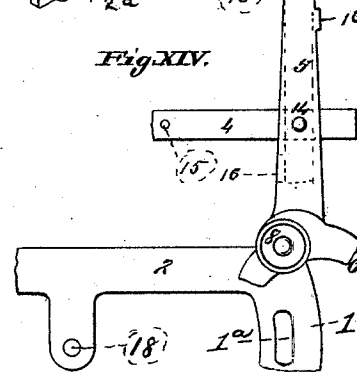


Fig. XIV



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UNITED STATES PATENT OFFICE.

JOHN J. HOGAN, OF ST. LOUIS, MISSOURI.

RECLINING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 469,569, dated February 23, 1892.

Application filed April 17, 1891. Serial No. 389,341. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. HOGAN, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Reclining-Chairs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The invention relates to the means for holding the adjustable back at any inclination and to devices fitting the chair for folding into a small compass for shipment.

The features of novelty will be set forth in the claims.

Figure I is a side elevation of the chair, showing the back slightly inclined. Fig. II is a rear elevation of the chair-frame. Fig. III is a detail side view of the joint between the arm and the side bar of the back, showing the position of the parts when folded for shipping; and Fig. IV is a perspective view of the same parts, showing them in position for use. Fig. V is an enlarged detail longitudinal section taken at V V, Fig. II. Fig. VI is a vertical transverse section taken at VI VI, Fig. I. Fig. VII is a detail perspective view of the pawl. Fig. VIII is a vertical longitudinal section taken at VIII VIII, Fig. II. Fig. IX is a detail inside elevation of the top rail of the chair-body with part of the strap in section. Fig. X is a horizontal section taken at X X, Fig. IX. Fig. XI is a detail perspective view of part of the top rail of the chair-body. Fig. XII is a detail inside view of the lower end of the arm. Fig. XIII is an inside perspective detail showing the connection of the side bar of the back and the quadrant-arm. Fig. XIV is a detail elevation showing the manner of folding the back down for shipment.

1 is the supporting-frame, having top side rails 2, connected by usual transverse rails. The back 3 has side bars 4, connected to the arms 5 of a quadrant 6, having an inside cog-segment 7 concentric with the pivot-pin 8, on which the quadrant turns. The quadrant is forked, so as to form a recess 9 to receive the ear 10 of the side rail 2, the pin 8 passing through the quadrant and prong 9^a of the fork. The prong 9^a has ratchet-teeth 9^b, engaged by a stud 11 upon a spring-shaft 12. It will be

understood that a ratchet-tooth 9^b will bear against the stud 11, and by this means the springs 13 of the shafts 12 may be made to counterbalance the weight of the back. The device, however, is found in former patents of mine, No. 395,975, dated January 8, 1889, and No. 412,617, dated October 8, 1889, and no claim is made for the same in this specification. Each of the side bars 4 is connected to its quadrant-arm 5 by a rivet 14, which constitutes a pivot on which the bar may be turned in folding the chair for shipment. (See Fig. XIV.) When the parts are in position for use, they are in line with each other, as seen in Fig. I. In this position they are held by a screw 15 and by stops or projections 16 upon the arm 5 above and below the pivot 14, the edge of the side bar 4 bearing against these projections as the back 3 is pushed backward. In order to hold the back to any desired inclination, a stud or dog is made to engage the cog-segment on each side. This stud or dog will now be described.

17 are bars, one at each side of the chair, pivoted upon a rod 18, passing from side to side of the chair-frame and forming the pivot for both bars 17. Each end of the rod has an arm 19, whose upper end 20 is in easy reach of a person sitting on the chair. This arm is forked at 21 to embrace the rod and the fork secured to the rod by a pin 21^a passing through the prongs and the rod. Each bar 17 has an upward projection 17^a, that extends into the fork 21, so that when the top 20 of either of the arms 19 is moved forward both of the bars 17 are lifted at their rear ends and disengage studs or dogs 22 from the segment 7. These studs or dogs operate through curved slots 1^a in the rear legs of the chair. Each stud 22 is upon a bracket 23, that is secured to the bar 17 by bolts 24, passing through the bar and through slots 25 in the bracket. This mode of attachment gives means for adjusting the distance of the stud 22 from the pivot-rod 18. The movement of the back on its pivots 8 is limited by the impingement of the studs 22 against the side-bars 6^a of the quadrant. The brackets have lugs 26, that are pivoted by rivets or screws 27 to the ends of a bar 28, that thus connects the two brackets together.

29 is a spring bearing upon the bar 28 at the mid-length of the latter and serving to press both the studs 22 down into engagement with the segments 7. The spring 29 bears at its upper end against a lug 1^a on the bar or rail 1^b. The projection 17^a does not occupy the whole width of the fork 21, so that it has lost motion therein, as seen in Fig. VIII. The purpose of this lost motion is to allow both of the studs 22 to rest in the bottoms of the tooth-recesses of the segment 7, which they might not do if the connections were rigid without great care were had in fitting the parts. The extensible feature of the bar 17, with its bracket 23, allows either of the studs 22 to be adjusted to the other for much the same purpose as it avoids the necessity for an extreme accuracy in the work that would involve unnecessary expense. It will be seen that the pivoted connections 27 allow the free motion of the studs in their independent movement relative to each other on reaching the bottoms of the inter-dental recesses of the segments 7. The arms of the chair have a horizontal part 30 connected to the side bars 4 by pivot-rivets 31, and connected to the part 32 by a pivot-rivet 33. The part or member 32 of the arm carries a headed stud 34 at its lower part that enters a curved recess or slot 35 in the top of the bar 2, and is held therein by a pivoted bolt or latch 36, whose end 37 is adapted to fill the recess outside the stud when this end of the latch is in its highest position. (See Figs. IX and XI.)

2^a is a strap covering the head of the stud 34 when the latter is engaged in the recess 35. The latch is held in the said position by a spring 38, that is shown upon the pintle 39 with one end beneath a stud 40 upon the latch and the other end beneath a stud 41 upon the rail 2. In place of the spring 38 the latch may have an extension, (shown by broken lines at 42, Fig. IX,) whose weight will keep the front end 37 of the latch elevated. The ends 37 may be forced down by the pressure of the thumb on the projections 43, so as to allow the studs 34 to be lifted from the recesses 35 when it is desired to fold the arm up to the back, which is done when putting the chair in condition for shipment, or when it is desired to have access to the chair from the side, as may often be the case when the foot-rest (not shown) is out, or in placing a patient upon or removing the patient from the chair, or in surgical treatment of a patient upon the chair. The parts of the arm can be folded up to the back and the back

folded down upon the body, as before set forth.

44 is a lug upon each arm that impinges against a stud 45 upon each side bar of the back when the arm is thrown upward and backward. (See Figs. III and IV.)

I claim herein as new and of my invention—

1. A reclining-chair having a body, a pivoted back, a segment secured to the back, teeth on the interior of said segment, said segment having the side bars 6^a, limiting the movement of the back on the pivot, and an extensible stud or dog pivoted to the body of the chair and adapted to engage the cog-rack and the side bars 6^a, substantially as and for the purpose set forth.

2. The combination, in a reclining-chair, of the body, the back pivoted to the body, cog-segments, as 7, attached to the hinged back and having side bars 6^a, limiting the movement of the back, and the dogs connected to the body of the chair, said dogs adapted to engage the segments and made extensible, and means for operating the dogs, substantially as and for the purpose set forth.

3. The combination, in a reclining-chair, of the body, the pivoted back, cog-segments 7 on the back, extensible bars 17, pivoted to the body of the chair, having studs engaging the cog-segment and having upward projections 17^a, arms 19, loosely secured to the bar 17 and loosely embracing the projections 17^a, and the cross-bars 18, substantially as and for the purpose set forth.

4. The combination, in a reclining-chair, of the body, the back, the cog-segments 7, hinged to the body of the chair and having arms 5, bars 4, pivoted to the arms 5 and rigidly attached to the sides of the back and having means, as described, for rigid connection with the arms 5, and bars 17, pivoted to the body of the chair and carrying studs adapted to engage the cog-segments, substantially as set forth.

5. The combination, in a reclining-chair, of the body, the pivoted back, the arm composed of two parts 30 and 32, hinged together, a stud 34 on the part 32, the side bar 2 of the chair-body having a recess 35, adapted to receive the stud, and a spring-latch 36, with portion 37 adapted to fill the mouth of the recess 35, substantially as and for the purpose set forth.

JOHN J. HOGAN.

In presence of—
E. S. KNIGHT,
THOS. KNIGHT.