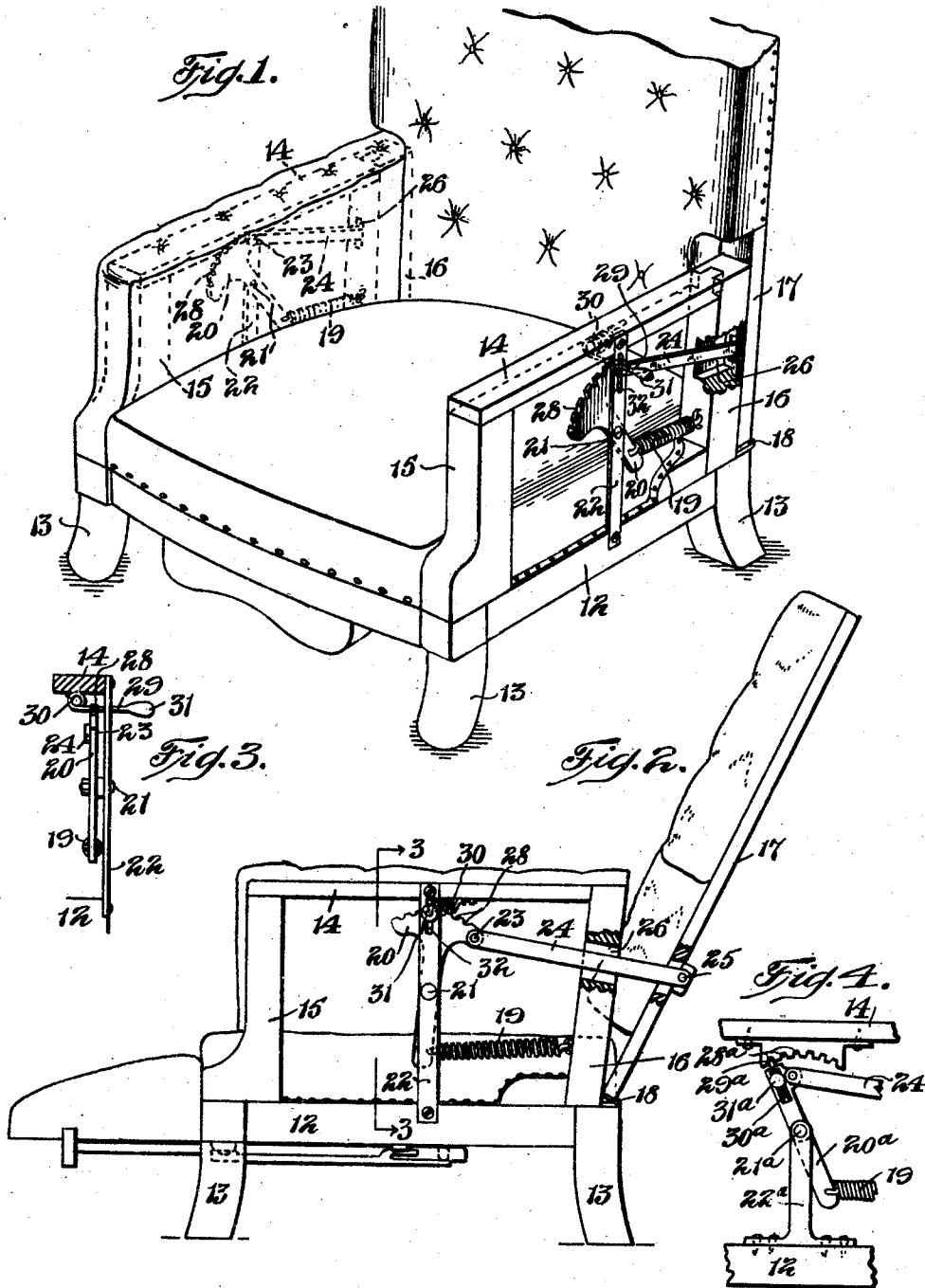


J. CASASSA.
RECLINING CHAIR.
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972,334.

Patented Oct. 11, 1910.



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UNITED STATES PATENT OFFICE.

JOSEPH CASASSA, OF MALDEN, MASSACHUSETTS.

RECLINING-CHAIR.

972,334.

Specification of Letters Patent.

Patented Oct. 11, 1910.

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To all whom it may concern:

Be it known that I, JOSEPH CASASSA, of Malden, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Reclining-Chairs, of which the following is a specification.

This invention relates to a chair comprising a frame, which includes suitable arms and supports, a seat below the arms, a back hinged to the frame and adapted to stand at different inclinations, and spring-controlled means for yieldingly supporting the back in its raised or highest position, means being also provided for locking the back at various angles of inclination.

The invention has for its object to provide an improved chair characterized as above stated, the improvements relating chiefly to the spring controlled mechanism for yieldingly holding the back in its raised position, and the means for locking the back at various angles.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings forming a part of this specification, Figure 1 represents a perspective view of a chair embodying my invention, a part of the frame being broken away and the back being shown in its raised position. Fig. 2 represents a side view showing the back inclined or swung backwardly from its highest position. Fig. 3 represents a section on line 3—3 of Fig. 2. Fig. 4 represents a modification.

The same reference characters indicate the same parts wherever they occur.

My improved chair comprises a frame, which includes a body or seat supporting portion 12, legs 13, arms 14, and suitable arm supporting portions which are shown as front standards 15 and rear standards 16. The arms 14 and standards 15 and 16 form the sides of spaces above the body portion 12, these spaces containing the improved mechanism hereinafter described for holding the back 17 in different positions. The back 17 is hinged at 18 to the frame, and when in its raised or highest position bears against the rear standards 16.

19 represent springs which are preferably of helical form, and are suitably attached to the chair frame, and preferably to the rear standards 16 thereof, the springs extending forward from said standards.

20 represent levers which are fulcrumed at 21 to lever supports 22 forming parts of the frame, said supports being here shown as metal bars or standards attached at their lower ends to the body portion 12 of the frame, and at their upper ends to the arms 14. Each lever has an upper arm above its fulcrum and a lower arm below its fulcrum. The forward ends of the springs 19 are connected to the lower arms of the levers, the springs being adapted to normally contract and hold the levers in the position indicated by Fig. 1. To the upper arms of the levers 20 are pivoted at 23 the forward ends of rods 24, the rear ends of which are pivoted at 25 to the back 17, said rods passing through slots 26 in the rear standards 16. The force of the springs 19 is such that they are adapted by their contraction to act through the levers 20 and rods 24 to yieldingly hold the back 17 in its raised position as shown by Fig. 1. When the back is forced rearwardly the springs yield, thus permitting the inclination of the back as indicated by Fig. 2. The described lever and rod connection between the springs and the back, permit the employment of relatively short springs having no direct connection with the back, and located wholly within the spaces inclosed by the body portion, the arms, and the arm supporting standards, the opening and closing movement of the springs being relatively short so that the springs are not subjected to injurious strains tending to permanently elongate or set the same.

Means are provided for locking the levers 20 and the back in several positions, thus causing the levers, through the rods 24, to positively lock the back at various inclinations, the preferred locking means being as next described.

The upper arm of each lever is provided with a segmental head in which are formed a series of notches 28. Spring detents 29 supported by the arms 14 are adapted to engage said notches as clearly shown by Fig. 3, each detent being preferably a length of resilient wire attached at its inner end to one of the arms 14, and having a coiled portion 30 adjacent to its attached end and a suitable handle 31 at its outer end. Said detents are adapted to spring automatically into engagement with the notches 28, the handles 31 being so arranged that they may be conveniently manipulated by the occu-

pant of the chair to disengage the detents from said notches. The detents are rigidly supported against backward and forward horizontal movement by the edges of slots 32 formed in the lever supports 22, the detents passing through said slots which are vertically elongated to permit the detents to move into and out of engagement with the notches in the levers. Provision is therefore made for firmly supporting the back in any position to which it may be adjusted, the edges of the slots 32 forming rigid bearings which prevent forward or backward horizontal movement of the detents.

If desired two or more springs 19 may be employed to connect each lever 20 with the frame, the springs being located side by side. Any other suitable means may be provided for locking the levers 20 in the different positions required.

In Fig. 4 I show a modification of the locking mechanism in which 20^a represents one of the levers provided with a detent 29^a adapted to engage notches 28^a in a flange attached to the arm 14, the detent being a bolt pressed upwardly by a spring 30^a and provided with a handle 31^a whereby it may be retracted. In this modification the lever is fulcrumed on a support 22^a. It will be seen that the lever and rod connections between the springs and the back, operate with practically no friction, so that the full

strength of the spring is utilized. It will also be seen that the number of parts is reduced to the minimum, and that the contraction of the springs moves the back to its raised position so that the springs are not subjected to strain tending to weaken them when the back is raised.

I claim:—

A chair comprising a base frame, arm supports, arms supported thereon, a back pivoted to said frame, lever supports extending from said arms to said base frame and bracing the former, levers pivoted to said supports, rods passing through the rear arm supports and connecting the upper ends of said levers with said back, springs secured at the lower ends of said levers to retain said back in raised position, spring detents secured to the under sides of each of said arms and each having an extension passed through one of said lever supports and adapted to engage the upper end of the adjacent lever to lock the same in different positions, whereby said back is retained at different angles.

In testimony whereof I have affixed my signature, in presence of two witnesses.

JOSEPH CASASSA.

Witnesses:

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P. W. PEZZETTI.