No. 816,209. PATENTED MAR. 27, 1906.

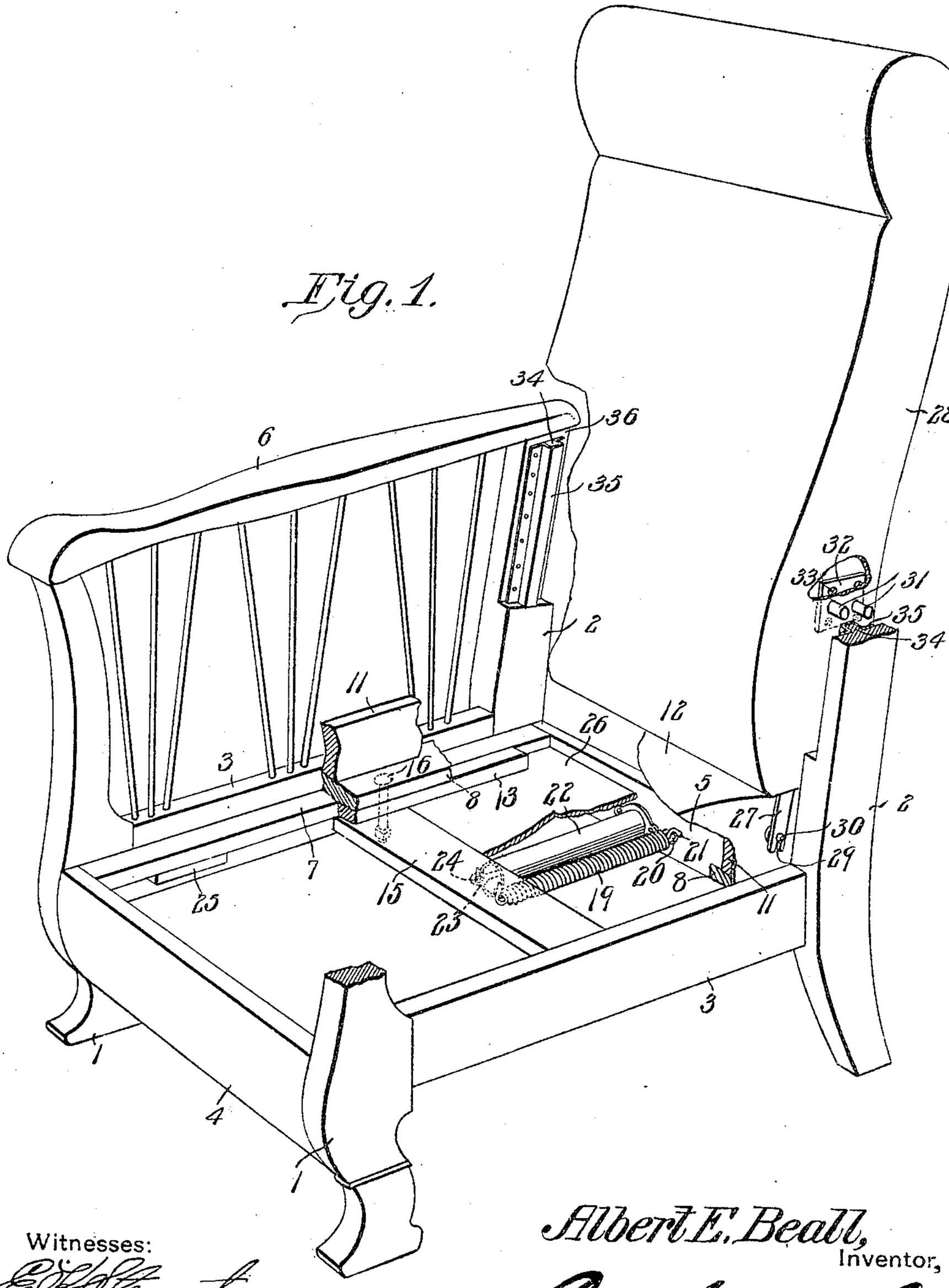
A. E. BEALL.

CHAIR.

APPLICATION FILED AUG. 7, 1905.

2 SHEETS—SHEET 1.

Fig. 1.



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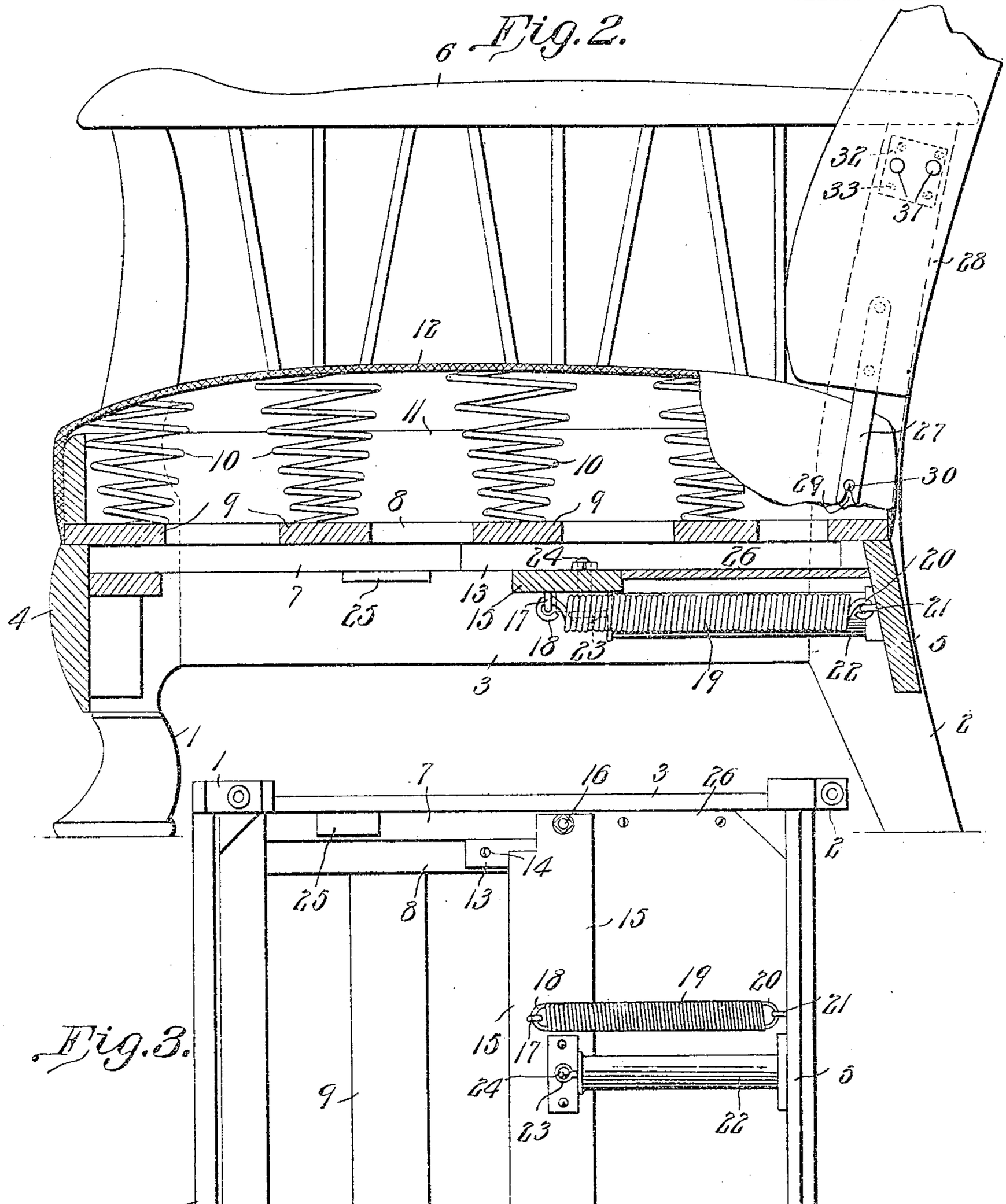
2 SHEETS—SHEET 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

ALBERT E. BEALL, OF CLINTON, IOWA.

CHAIR.

No. 816,209. Specification of Letters Patent. Patented March 27, 1906.

Application filed August 7, 1905. Serial No. 273,105.

To all whom it may concern:

Be it known that I, ALBERT E. BEALL, a citizen of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented a new and useful Chair, of which the following is a specification.

This invention relates generally to chairs, and more particularly to the class known as "Morris" chairs of that type having a swinging back and horizontally-movable bottom operatively connected therewith, the latter being projected forward as the back recedes, and vice versa.

The object of the present invention is to improve the manner in which the back is combined with the seat proper and with the seat-frame, whereby great durability is secured, with simplicity of construction and efficiency of operation.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a chair, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in perspective of a chair embodying the present invention, the seat being removed and a portion of the framework being broken away to show the improvements. Fig. 2 is a view in vertical longitudinal section through the seat if the chair. Fig. 3 is an inverted plan view of the seat.

Referring to the drawings, 1 designates the front legs of the chair, 2 the rear legs, and 3, 4, and 5, the side, front, and rear seat-frame pieces that connect the legs and render them rigid, the upper ends of the legs being connected by arms 6, and as these parts may be of the usual or any preferred construction further description thereof is deemed unnecessary.

Secured to the side pieces 3 are sills 7, upon which rests and is guided the seat-support consisting of a pair of longitudinal bars 8 and transverse bars 9 connected therewith, the latter bars serving to support the cover-springs 10 in the usual manner. Secured to the bars 8 are longitudinal frame-pieces 11, forming the sides of the seat proper, and to which the covering 12 is secured, as shown in Fig. 1.

Disposed beneath the bars 8 are keepers 13, which bear against the inner faces of the sills, as shown in Fig. 3, and are secured to the bars 8 by screws or bolts 14, the object of these keepers being to prevent the seat-supporting frame from having any lateral movement and to cause it to project in a right line when actuated by the movement of the back, as will presently appear. Disposed beneath the keepers is a cross-bar 15, which is secured to the keepers and to the bars 8 by bolts 16, as clearly shown in Fig. 2, the terminals of the said bar being adapted to bear against the sills 7 and be held thereby against any tendency to lift. The cross-bar carries an eye 17, which is engaged by a hook 18 at one end of a coiled spring 19, the other end of which is provided with a hook 20 to engage an eye 21, carried by the rear frame-piece 5, as clearly shown in Fig. 2, the function of the spring being to retain the seat and back normally in the position shown in the figure above referred to. The rear frame-piece 5 has also secured to it an air-buffer cylinder 22, which is engaged by a piston carried by a piston-rod 23, having its free end secured by a bolt 24, carried by the cross-bar 5, the function of the buffer being, as is common in structures of this kind, to cushion the seat and back when they resume their normal positions after having been adjusted to suit the occupant. The forward movement of the cross-bar is controlled by a pair of stops 25, carried by the under side of the sills 7, and its rearward movement by a stop 26 in the nature of a board, which is secured to the under side of the sills, as shown in Fig. 2.

From the foregoing description it will be seen that the seat-carrying frame will be capable of a limited forward and rearward movement, but will be held against any tendency to lift, so that the cushion will always occupy the same horizontal plane.

One of the essential features of the invention resides in the mechanism for projecting the seat forward as the back is brought to reclining position and also in the means by which the back is combined with the chair proper to permit it to have a rocking movement relatively thereto and also to allow disconnection therefrom and from the seat when desired. The first feature is secured by the employment of a pair of arms 27, that are rigidly secured to the outer faces of the back members 28 and have their lower ends bifurcated or crotched, as at 29, to straddle bolts or studs 30 rigid with the frame-pieces 11. The second feature is secured by the employ-

ment of two pairs or spaced studs 31, also secured to the outer faces of the back members 28 by screws or bolts 33, and are adapted to engage guides 34, that are formed in this instance by cutting away the inner faces of the upper portions of the rear legs, as shown in Fig. 1, and are reinforced by metallic caps or plates 35, rigidly bolted or secured to the legs. The guides terminate short of the under surface of the arms in order to present passage-ways 36, through which the studs 31 will pass when the back is to be removed, the crotches 29 of the arms permitting this. As will be obvious, instead of forming the guides 34 by cutting away the rear legs, as described, the guides may be made from metal and secured in position in any preferred manner. The distance between the studs is greater than the width of the guides, so that when the plane of the studs is at right angles to that of the guides the former will have a loose engagement therewith, and this permits of a limited angular movement of the studs relatively to the guides before they will bind.

By the provision of the guides, studs, and crotches in the arms 27 ready detachment of the back from the seat portion of the chair may be secured without the necessity of loosening any bolts or nuts or removing any part of the chair or disturbing the spring and the buffer, a feature that is of importance and materially adds to the novelty, utility, and general practicability of the chair.

The particular manner in which the back is constructed is immaterial, as also the particular construction of the seat, as these parts may be of the usual or any preferred design to suit the purchaser of the chair.

Owing to the manner in which the parts of the seat-frame and back are constructed and assembled, liability of damage in use is reduced to a minimum, while extended service is positively secured.

Having thus described the invention, what is claimed is—

1. A chair having the upper inner portions of its rear legs provided with raised guides, a back carrying spaced studs to engage the guides, a slidable seat, and arms carried by the back and operatively connected with the seat.

2. A chair having the upper inner portions of its rear legs provided with guides, a back carrying spaced studs to engage the guides, arms having their lower ends provided with crotches, and a slidable seat having studs to engage the crotches.

3. In a chair, the combination with the rear legs, provided on their inner faces with raised guides terminating short of the upper ends of the legs, of a back having spaced studs to engage the guides.

4. The combination with a chair having the inner faces of its rear legs cut away to form guides and carrying cap-plates to reinforce the guides, of a back carrying spaced studs to engage the guides, arms carried by the back, and a sliding seat with which the arms are operatively connected.

5. The combination with a chair having the inner faces of its rear legs cut away to form guides and carrying cap-plates to reinforce the guides, of a back carrying spaced studs to engage the guides, arms carried by the back and provided with crotched lower terminals, and a slidable seat carrying studs or projections to be engaged by the crotched terminals.

6. The combination with a chair having the upper inner portions of its rear legs provided with raised guides, and a back carrying spaced studs to engage the guides, of a slidable seat, arms carried by the back and operatively connected with the seat, and retracting and cushioning mechanisms combined with the seat.

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

ALBERT E. BEALL.

Witnesses:
KATHRYN WELSH,
L. M. CLARK.