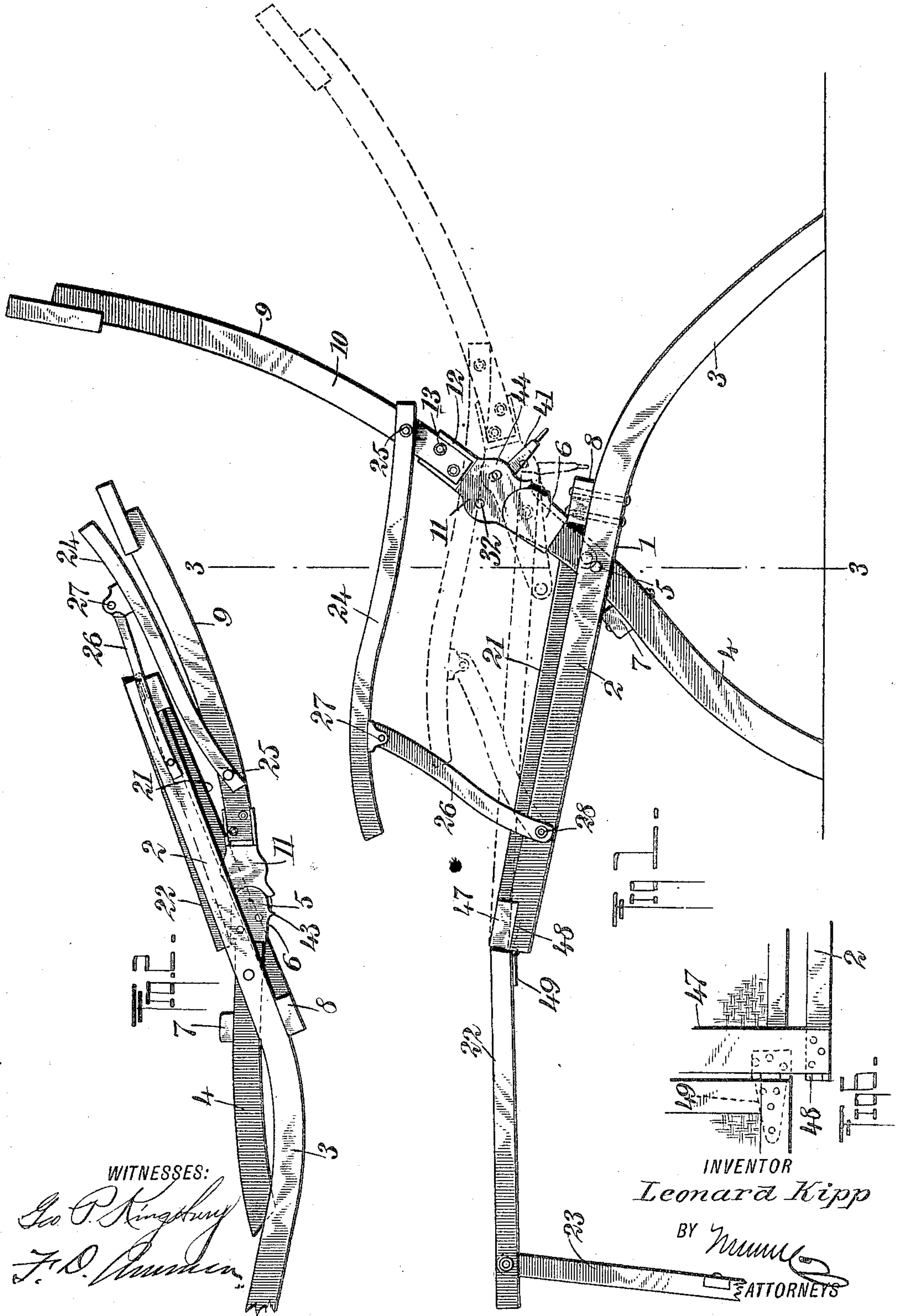


No. 813,156.

PATENTED FEB. 20, 1906.

L. KIPP.
RECLINING CHAIR.
APPLICATION FILED JAN. 12, 1905.

2 SHEETS—SHEET 1.

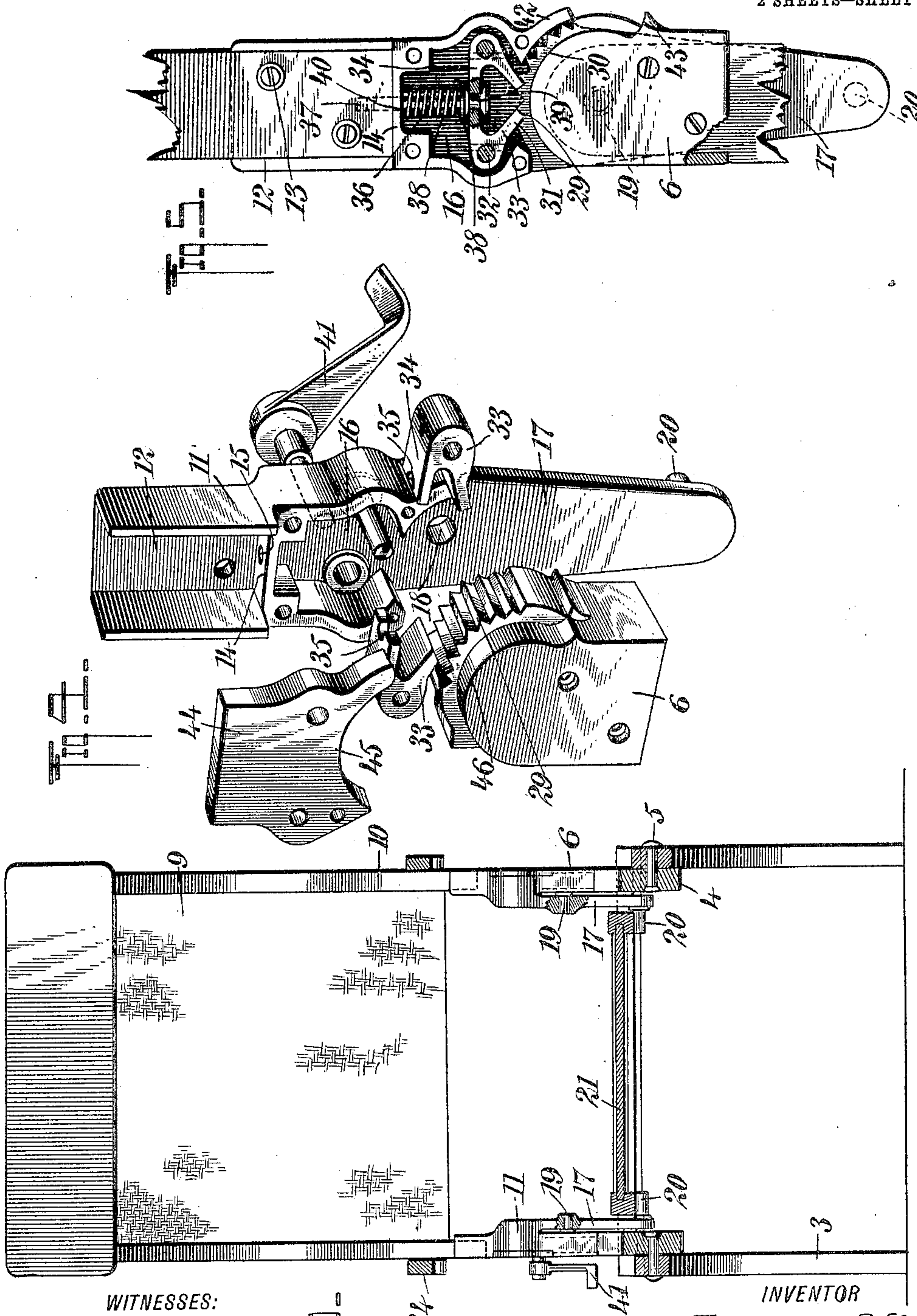


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2 SHEETS—SHEET 2.



WITNESSES:

Geo. P. Kingbury,
F. D. Vannoy

INVENTOR

Leonard Kipp

BY

Wm. W. Wm.

ATTORNEYS

UNITED STATES PATENT OFFICE.

LEONARD KIPP, OF WATERBURY, CONNECTICUT, ASSIGNOR TO ANNA KIPP, OF NEW YORK, N. Y.

RECLINING-CHAIR.

No. 813,156.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed January 12, 1905. Serial No. 240,687.

To all whom it may concern:

Be it known that I, LEONARD KIPP, a citizen of the United States, and a resident of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and Improved Reclining-Chair, of which the following is a full, clear, and exact description.

This invention relates to chairs, and especially to that class adapted to be used as steamer-chairs or reclining-chairs.

The object of the invention is to produce a chair of this type which is of simple construction and which may be quickly adjusted so as to support a person in an upright position or in different reclining positions.

A further object of the invention is to construct the chair so as to enable its parts to be folded compactly together when not in use.

Reference is to be had to the accompanying drawings, which form part of this specification, in which drawings like characters of reference indicate like parts in the several views, and in which—

Figure 1 is a side elevation of my chair, certain parts being broken away. In this view certain parts are shown in dotted outline indicating the adjustable nature of the chair. Fig. 2 is a side elevation representing the chair as folded up into a small space, certain parts being broken away. Fig. 3 is a central section taken vertically through the pivotal connection of the chair-legs and on the line 3 3 of Fig. 1. Fig. 4 is a perspective view of a group of the parts which constitute the locking mechanism for maintaining the chair in its different adjusted positions. Fig. 5 is a side elevation showing the parts illustrated in Fig. 4 in their assembled relation, certain of the parts being broken away; and Fig. 6 is a fragmentary view hereinafter more particularly described.

Referring more particularly to the parts, 1 represents the body of the chair. It comprises a pair of oppositely-disposed side bars 2, which are bent downwardly at the rear, so as to form the rear legs 3, as shown. The front legs 4 of the body are pivoted to these side bars 2 at the sides, as indicated, and project rearwardly above the pivot-points 5, so as to facilitate the attachment of socket-head 6, the purpose of which will appear more fully hereinafter. Adjacent to the pivot-points 5

the forward legs 4 are connected by a cross-bar 7, and when the chair is in its open position, as shown in Fig. 1, this cross-bar 7 constitutes a stop to receive the lower edge of the side bars 2, as indicated. At the rear of the pivot-points 5 the side bars 2 are connected by a cross-bar 8, against the forward edge of which the upper portions of the forward legs 4 abut, as shown, so that the cross-bar 8 constitutes also a stop to limit the forward movement of the legs 4 when the bar is opened out.

The back 9 of the chair may be of any suitable construction comprising oppositely-disposed side members 10, the lower extremities whereof are mounted, as indicated, in brackets 11. There are two of these brackets, as shown, which are respectively made right hand and left hand, according to the side to which they are attached. The construction of one of these brackets is most clearly shown in Figs. 4 and 5. Each bracket comprises an upwardly-disposed socket 12, which receives the lower extremity of the connected side bar, which is rigidly attached thereto by bolts 13, as shown. At the lower portion of this socket 12 a transversely-disposed web 14 is formed, the same being provided with an opening 15, which is preferably centrally disposed, as shown. The purpose of this opening will appear more fully hereinafter. Below the web 14 the bracket is formed into a chamber 16, adapted to receive certain mechanism which will be more fully described hereinafter, and below this chamber 16 one side of the bracket is extended downwardly, so as to form an arm 17. At a suitable point in the body of this arm 17 an opening 18 is formed, which opening is adapted to receive a pintle or stud 19, which connects the same pivotally with the aforesaid socket-head 6, which extends thereto. As indicated most clearly in Fig. 3, this pintle or stud 19 is preferably carried by the socket-head 6 and projects laterally therefrom toward the central axis of the chair. At the lower extremity of the arm 17 an inwardly-projecting spur 20 is formed, and the spurs 20 operate to support the seat 21 of the chair, as indicated most clearly in Fig. 3. From an inspection of this figure it will be seen that the spurs 20 project under the side edges of the seat in such a manner as to support the same; but they are not attached

thereto and may slide along upon the under side of the seat when the chair is adjusted in the manner which will appear more fully hereinafter. It should now appear that the bracket and head shown in Fig. 4 correspond to the same parts which are shown at the left in Fig. 3.

At or near the forward extremity of the side bars 2 the seat 21 is attached by means of a hinged connection, as indicated, and beyond this point a seat extension 22 is arranged, the same being supported upon a suitable leg-frame 23.

At the sides of the back 9 arms 24 are pivoted, as shown at 25, and these constitute arm-rests, their forward extremities being supported by links 26, attached pivotally to the arms at 27 and pivoted to the side bars 2 at 28.

It being now understood that a pivotal connection exists between the chair-back and the upper portion of the legs 4 and it being further understood that the arms 17, which project downwardly from the back, support the rear portion of the seat, it should now be clear that if the chair-back be moved rearwardly into some such position as that in which it is shown in Fig. 1 the arms 17, moving upwardly, as they do, will elevate the rear portion of the seat. In order to facilitate the adjustment of the chair back and seat into any desired relation, mechanism is provided, which will be now described. Before proceeding to a detailed description of this mechanism it should be stated that it is provided in duplicate, the mechanism in connection with each bracket being substantially the same.

Referring especially to Figs. 4 and 5, I provide the upper faces of the socket-heads 6 with circumferentially-disposed serrations or teeth 29, so that a comb or ratchet 30 is formed at this part. Within the chamber 16 aforesaid a pair of oppositely-disposed pawls 31 are pivoted, as shown, on transversely-disposed bolts 32. The bodies 33 of these pawls incline toward each other, as indicated, and the pawls, together with their pivots 32, are respectively disposed symmetrically with respect to a line passing vertically through the axis of the pintle 19, as shown in Fig. 5. From the upper portions of the bodies of these pawls fingers 34 project toward each other, as shown, and the adjacent edges of these fingers are preferably formed with oppositely-disposed recesses or notches 35. A plunger 36 is provided, the upper extremity whereof is slidably mounted in a guide-opening 37, which is formed in the lower extremity of the side bar 10, which opening or bore substantially coincides with the aforesaid opening 15 which is formed in the web 14. The lower extremity of this plunger 36 is formed into a head comprising oppositely-disposed enlarged collars 38, with a reduced neck 39

therebetween. This neck 39 is received in the space formed between the notches 35, it being understood that when the pawls are disposed oppositely, as shown, these notches will also lie oppositely in the manner indicated. A helical spring 40 is disposed about the body of the plunger 36. The upper portion of this spring thrusts against the lower side of the web 14, so that the spring operates normally to constrain the plunger downwardly. From this arrangement evidently the spring operates to normally maintain the extremities of the pawls 31 in engagement with the teeth 29 of the ratchet. The bolts 32 are rigidly attached to the pawls, as indicated, and one of the bolts is provided with a rigidly-attached lever 41. By moving this lever upwardly the pawl attached to the lever will of course be moved upwardly also in such manner as to disconnect its point from the ratchet 30. In moving upwardly in this manner this pawl will of course operate to force the plunger 36 upwardly, and by reason of the collars upon the plunger the opposite pawl will also be disengaged and will have a movement in all respects a duplicate of that of the first pawl referred to. In this way a single lever 41 affords means for disconnecting both pawls simultaneously.

In operating the chair the pawls will be disconnected from the ratchets by means of the lever 41 in the manner just described, and the chair-back will then be adjusted in any position desired. When the lever is released, the spring 40 of course operates to return the pawls into their normal relation of engagement at their ratchet 30. It will appear that the pawls operate effectively to prevent any movement of the back with relation to the body of the chair unless the lever 41 has been first actuated, each of the pawls operating to prevent movement in one direction. When the back 9 is moved to its most rearward position, an extension 42 of the wall of the chamber 16 will abut against a stop 43, formed upon the socket-head 6, as shown.

All of the parts mounted within the chamber 16 will be hidden from view by means of a suitable face-plate 44, which conforms substantially to the outline of the bracket at this part, and the lower edge of this face-plate is preferably curved, as shown at 45, so as to conform to and receive a circumferentially-disposed shoulder 46, which is formed about the pintle 19 as an axis. In this way the construction of the chair at the joints is given a very neat and attractive appearance.

As shown particularly in Fig. 6, the seat 21 is formed at its forward extremity with a cross-bar 47, which connects by hinges 48 with the side bars 2. This connection permits the adjustment of the seat at this point at various angles with respect to a horizontal line. The seat extension 22 is attached by

hinges 49 to the cross-bar 47, enabling the seat extension to be adjusted, as will be readily understood.

It is expected that chairs constructed in the manner described will be more useful as steamer-chairs; but the usefulness of the invention should not be restricted to this type of chairs. The invention would seem applicable also as a porch-chair or as an invalid-chair and in all situations where simple adjustability is desired.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a chair of the class described, in combination, a body having side bars, the rear portions thereof constituting rear legs, forward legs making a pivotal connection with said side bars, a body making a pivotal connection with the upper extremities of said forward legs, said body having spurs projecting inwardly and moving therewith, a seat supported upon said body forwardly and supported upon said spurs toward the rear, arms pivotally attached to the sides of said back, links pivotally connecting said arms forwardly with said side bars, and means for locking said back in a plurality of positions.

2. In a chair of the class described, an adjustable connection comprising, in combination, a ratchet, a pair of pawls projecting in opposite directions and engaging the teeth of said ratchet, a connection between said pawls whereby they move simultaneously, a spring constraining said pawls to engage said ratchet, and a lever for disengaging them from said ratchet.

3. In a chair of the class described, an adjustable connection comprising, in combination, a ratchet, a pair of pawls, the bodies whereof project toward each other and the points whereof engage said ratchet, said pawls having fingers projecting therefrom, a plun-

ger engaging said fingers, a spring constraining said plunger to maintain said pawls in engagement with said ratchet, and a member adapted to disengage said pawls.

4. In a chair of the class described, an adjustable connection comprising, in combination, a socket-head presenting a ratchet, a pair of oppositely-disposed pawls projecting toward each other and engaging the teeth of said ratchet, said pawls having adjacently-disposed fingers, a plunger disposed between said fingers and engaging same to operate said pawls, and a member adapted to move said pawls.

5. In a chair of the class described, an adjustable connection comprising, in combination, a socket-head presenting a ratchet, a pair of oppositely-disposed pawls engaging the teeth of said ratchet and projecting toward each other, said pawls having adjacently-disposed fingers with opposite recesses, a plunger having a reduced neck received in said recesses, and means for actuating said pawls.

6. In a chair of the class described, an adjustable connection comprising, in combination, a socket-head presenting a ratchet, a pair of oppositely-disposed pawls engaging the teeth of said ratchet and having adjacently-disposed fingers with recesses therein, a plunger having a reduced neck received in said recesses, a spring constraining said plunger to maintain said pawls in contact with said ratchet, and a lever adapted to actuate one of said pawls, operating through said plunger to release the other of the said pawls.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEONARD KIPP.

Witnesses:

JOHN P. KELLOGG,

CHARLES P. KELLOGG.