

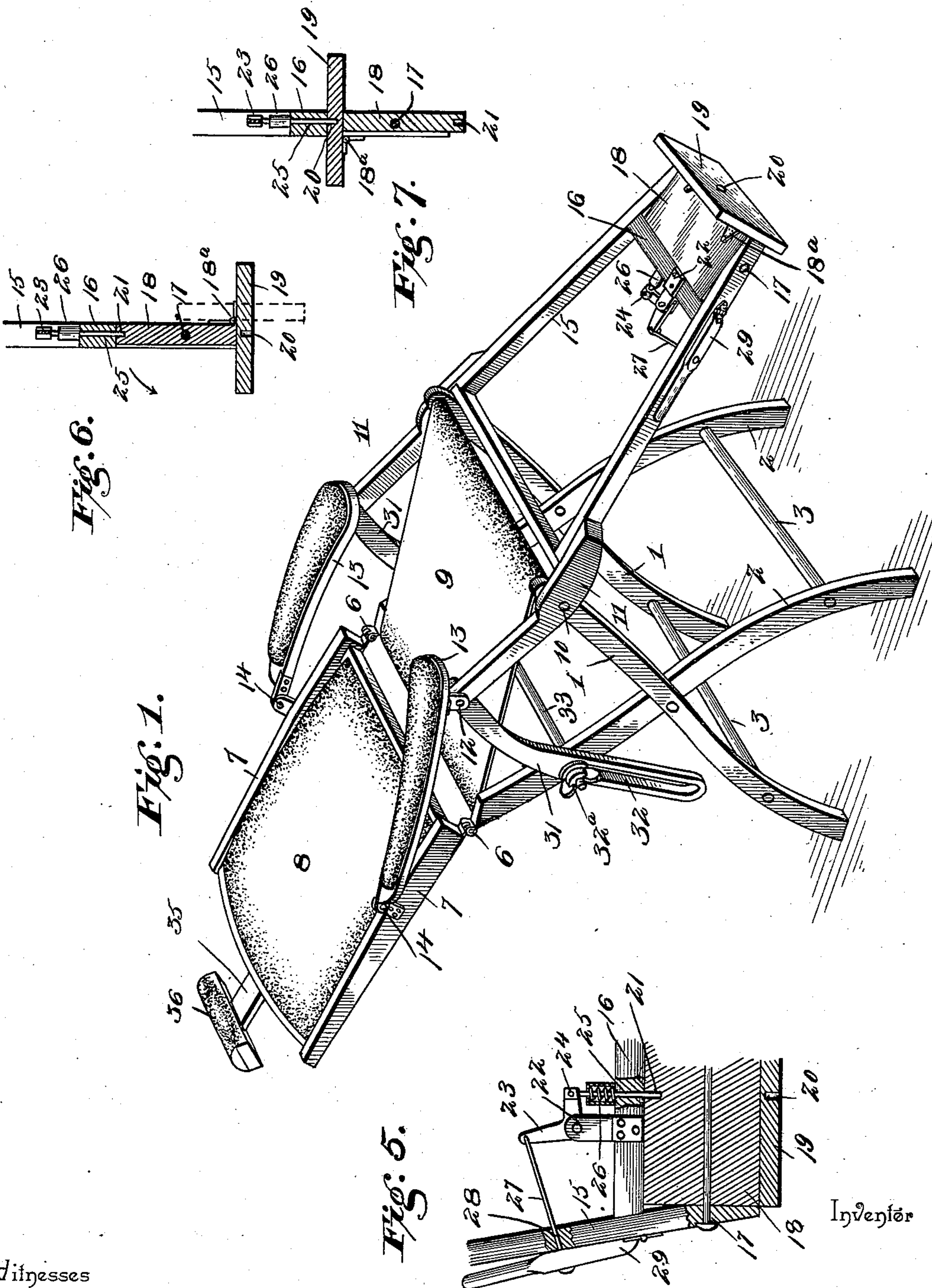
(No Model.)

2 Sheets—Sheet 1.

E. H. LOVEJOY.
PORTABLE DENTAL CHAIR.

No. 532,676.

Patented Jan. 15, 1895.



Witnesses

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Inventor

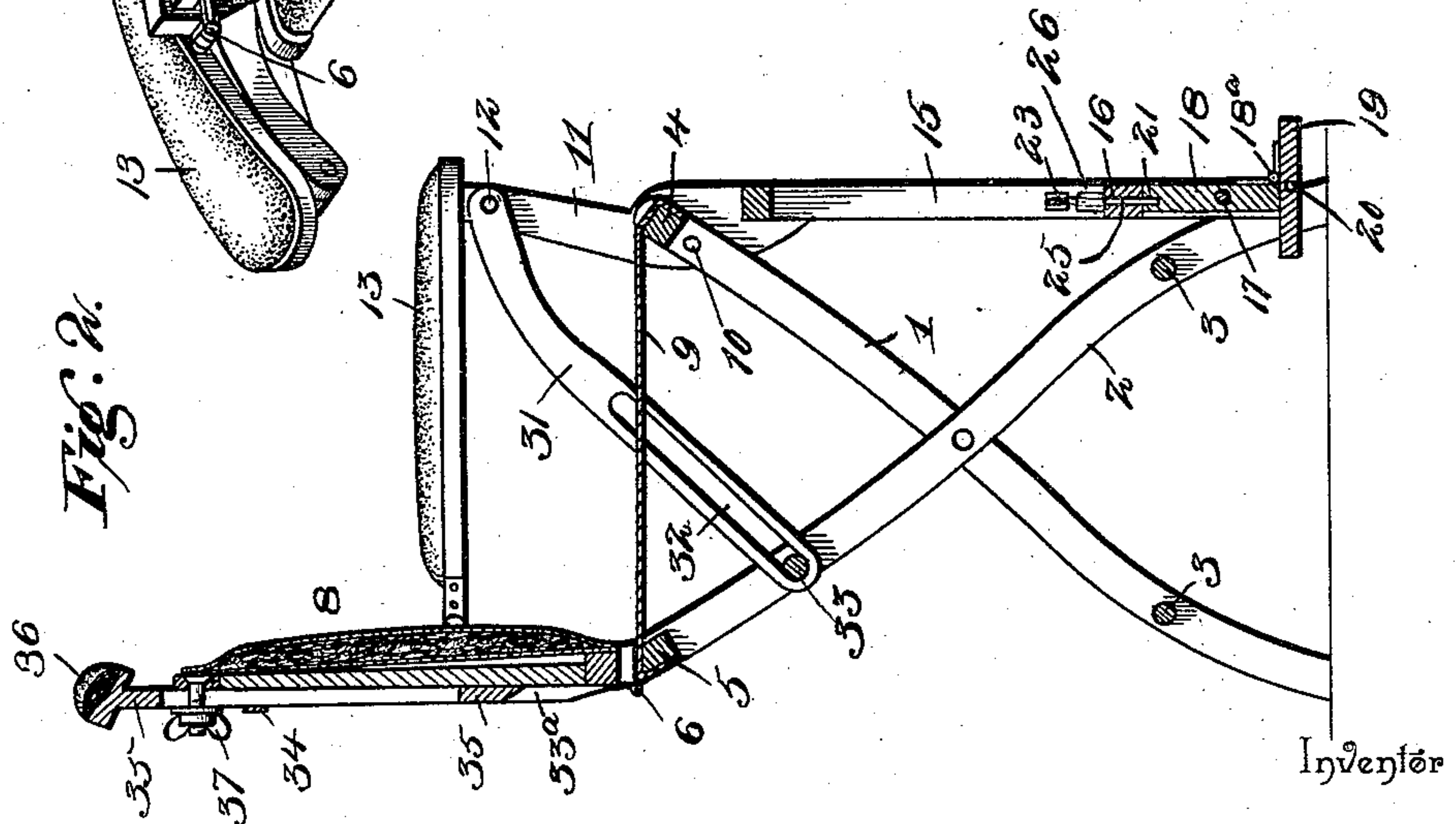
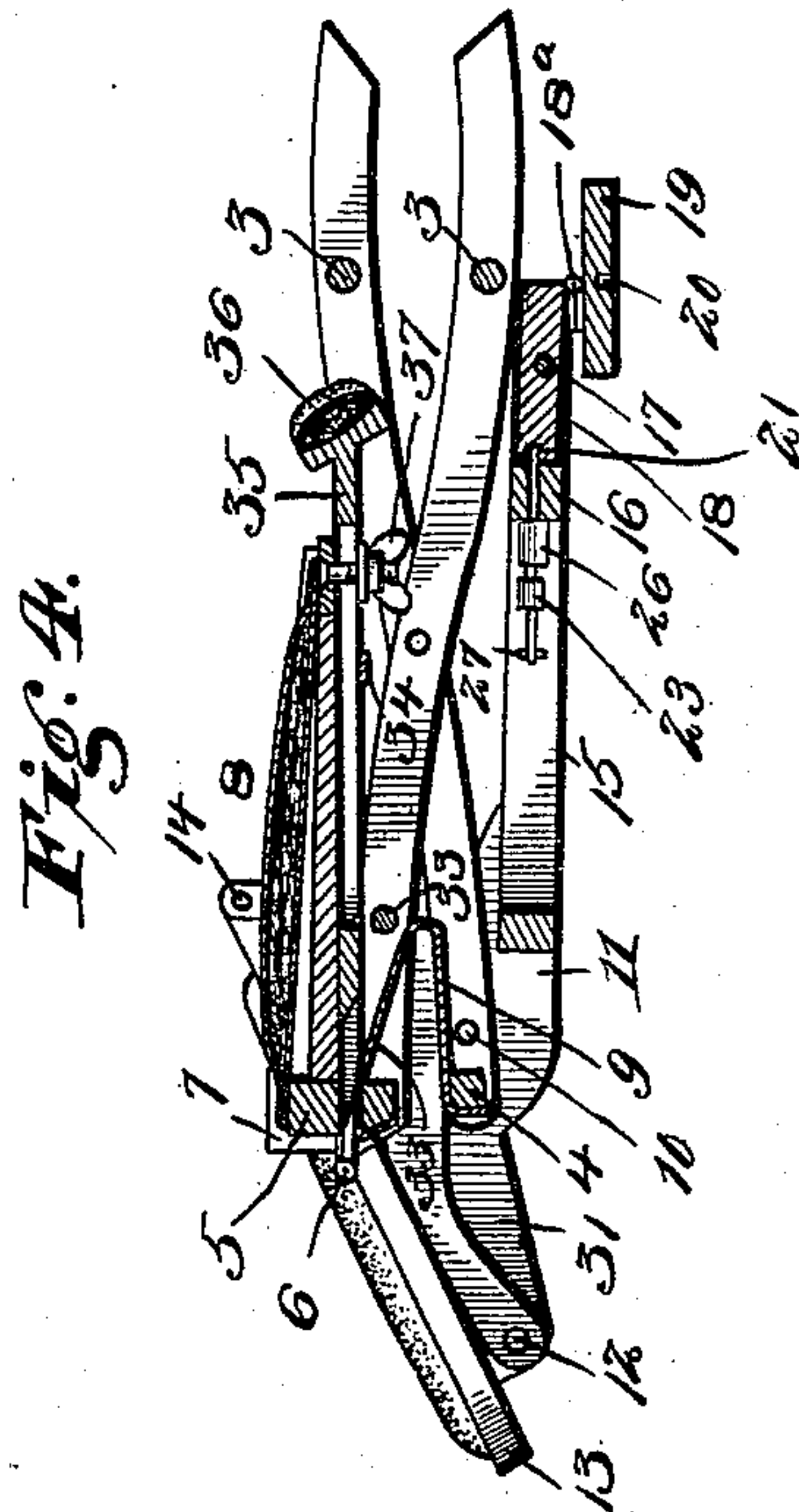
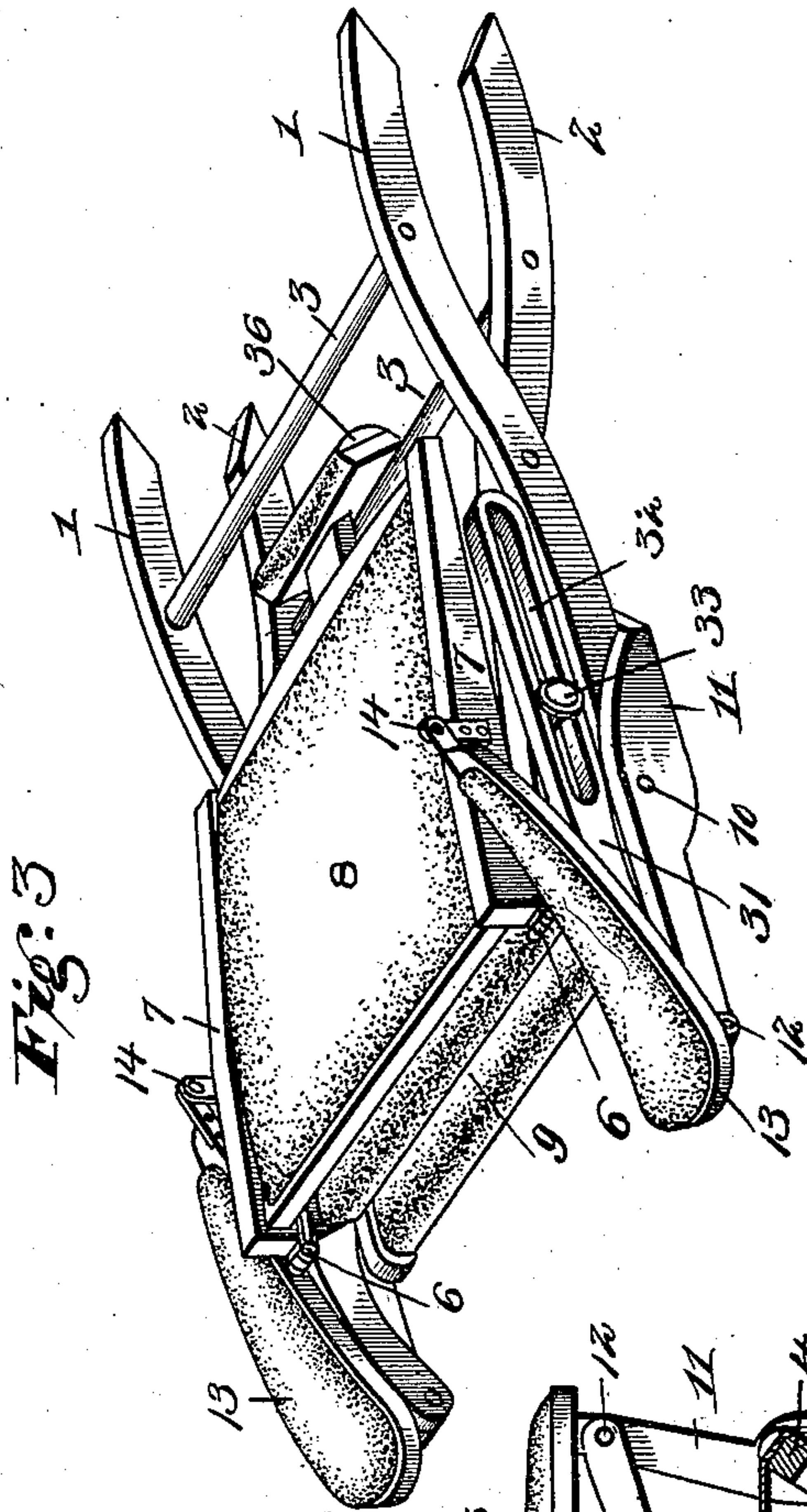
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UNITED STATES PATENT OFFICE.

EDWARD HARRISON LOVEJOY, OF TROUP, TEXAS.

PORTABLE DENTAL CHAIR.

SPECIFICATION forming part of Letters Patent No. 532,676, dated January 15, 1895.

Application filed December 26, 1893. Serial No. 494,778. (No model.)

To all whom it may concern:

Be it known that I, EDWARD HARRISON LOVEJOY, a citizen of the United States, residing at Troup, in the county of Smith and State of Texas, have invented a new and useful Portable Dentist's Chair, of which the following is a specification.

My invention relates to improvements in chairs, and more particularly to that class thereof employed by dentists.

The objects of my invention are to produce a simply constructed chair, designed for use by dentists who travel from place to place; to so construct a chair, that the same may be readily adjusted so as to place the patient in any desired posture for operating, which is adjustable as regards its foot-rest, whereby it is adapted to persons of different heights, and finally, which may be compactly folded, whereby it may be carried in the hand of the operator or be transported from place to place in a buggy, wagon, or other vehicle, and will occupy but little space.

Another object of the invention is to provide such a chair, which may be folded compactly without disconnecting the legs or any other parts, to permit such folding.

Various other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings: Figure 1 is a perspective view of a chair embodying my invention, the same being shown as inclined, as when occupied by a patient undergoing an operation. Fig. 2 is a vertical, longitudinal sectional view of the chair, the same being elevated so that the back is vertical. Fig. 3 is a perspective view of the chair folded. Fig. 4 is a sectional view thereof. Fig. 5 is a longitudinal sectional view through the foot-rest and its supporting frame. Figs. 6 and 7 are details of the different positions assumed by the foot-rest whereby it may accommodate persons of different sizes.

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

In the construction of my chair, I employ front and rear pairs of reversely and compoundly curved standards 1 and 2 respectively, connecting the standards of each pair by lower transverse rungs 3, and at their upper ends by the front and rear seat-rails 4 and 5, respectively. To the upper ends of

the rear standards 2, I hinge at 6, for rearward folding, the opposite side-rails 7 of the back-section 8. The back-section, it will be understood, is to be provided with proper upholstery, and as shown, the seat-rails 4 and 5, are connected by a flexible seat 9.

Intermediately pivoted at 10, to the upper ends of the front standards 1, is a pair of arm-levers 11, and to the upper ends of the same, I pivot at 12, the under side of the front ends of a pair of arm-rests 13, whose rear ends are pivoted at 14 to the opposite side-rails 7 of the back-section 8, and embraced by the lower ends of the arm-levers 11 and rigidly secured thereto by screws or otherwise, is a depending foot-section or frame 15, whose opposite side-bars converge at their lower ends, and above such points are connected by a bar 16. Below the bar 16, I pivot axially at 17, a foot-rest section 18, and hinge to the lower front edge thereof at 18^a, the upper side of a lower foot-rail section 19, disposed at a right-angle to the foot-rest section 18. The outer side of this section 19 is provided with a bolt-hole or socket 20, and the reverse end of the section 18 is provided with a similar bolt-hole or socket 21.

In the bearing bracket 22, with which the bar 16 is provided, I fulcrum a bell-crank lever 23, and pivot to the inner branch of the same at 24, a foot-rest section locking-bolt 25, the same passing through a corresponding perforation formed in the bar 16 and through a spring-barrel 26. A bell-crank operating wire 27 is connected to the upper end of the lever 23, and after passing through a perforation 28, formed in the side-bar of the frame 15, is connected to an operating-lever 29, which is hinged at its lower end to the aforesaid side-rail.

Pivoted by the bolt 12, to the under side of the arm rests 13, adjacent to their front ends, is a pair of curved longitudinally-slotted adjusting-bars 31, the slots 32 of which receive the ends of the rod 33, which extends through the standards 2 near the upper ends of the same. One end of the rod is headed, and the opposite, or that at the right side of the chair, is threaded and provided with a clamping thumb-nut 32^a, which is adapted to bind upon the curved adjusting-bars 31 and clamp the same rigidly against the standard 2, adjacent to it.

A pair of longitudinally disposed ribs 33^a,

are arranged upon the back-section at the rear side thereof, said ribs being crossed by a keeper 34. The standard 35 is longitudinally slotted and mounted for movement between the ribs and beneath the keeper, and supports at its upper end an ordinary head-rest 36.

The clamping-bolt and nut 37 pass through the slot in the standard and into the back section, whereby the aforesaid head-rest may be raised or lowered and secured at any point of its adjustment. The manner of adjusting the foot-rest, it will be seen, consists in the following operation: If it be desired to locate the foot-rest at its lowest possible point of adjustment, the section 18 is swung upward to a vertical position, and the bolt, actuated by the bell-crank, engages with the socket 21 in the aforesaid section 18, whereby the section will be locked within the frame 15, and the lower section 19 will serve as the rest proper for the feet. To shorten the foot-rest, the lever 29 is operated so as to release the section 18 from the bolt, and the section 19 is first folded on the section 18, as illustrated in dotted lines in Fig. 6 of the accompanying drawings; and then the section 18 is turned on its pivot in the direction of the arrow until the section 19 passes under and contacts with the bar 16. The parts then are turned on the hinges 18^a to bring the socket 20 in position to be engaged by the bolt, all as will be obvious, so that I gain in each adjustment a distance agreeing with the width of the section 18. The foot-rest, it will be seen, is rigid in any of its adjustments and cannot move independently of the frame 15. It will furthermore be seen that a movement upon the part of the back of the chair, causes, through the medium of the arm rest and the levers 11, a similar movement on the part of the foot-frame that supports the foot-rest, so that as the back-section recedes or swings backward, to form a reclining-chair, the frame 15 rises at its free end so as to approach nearer the horizontal; or any intermediate adjustments may be secured and the chair locked at any point by a simple turn of the before-mentioned clamping-nut 34, which, being located at that side of the chair at which the operator stands, is always within ready grasp of his hand and requires but a slight or partial turn to either lock or unlock the chair, and thus secure the same in its adjustment or permit of any subsequent adjustment desired to be made.

When it is desired to ship the chair or store it, as the case may be, the clamping-nut is released or loosened, the back swung down, the standards 1 and 2 swung together and the frame 15 carrying the foot-rests also swung down, so that, it will be obvious, the back, foot-rest, supporting frame, and standards swing nearly into alignment and occupy a narrow space, whereby the entire chair may be compactly stored in a buggy, light wagon or other vehicle and readily transported.

Although I have described the chair, and really intend it to be used by traveling dentists, yet it will be seen that it will be a useful chair for physicians in performing surgical operations, and for barbers; so that I do not limit its use, nor the details of its construction, to those herein shown and described, but hold that I may vary the same without detracting from the spirit, or sacrificing any of the advantages of the invention.

Having described my invention, what I claim is—

1. A reclining chair, comprising the front and rear intermediately pivoted standards connected at their opposite ends by seat rails, the back section hinged to the upper ends of the rear standards, the arm levers 11 permanently pivoted intermediate of their ends to the upper ends of the front standards, the arm rests 13 pivoted at their rear ends to the back section, and at their front ends to the upper terminals of said arm levers 11, the depending foot rest frame supported by the lower ends of the arm levers 11, the adjusting bars 31 pivoted at their upper ends to the point of juncture between the arm rests and the arm levers, and adjustably secured to the rear standards, and the flexible seat connecting the seat rails at the upper ends of the front and rear standards, whereby the chair may be compactly folded without disconnecting the standards, substantially as described.

2. In a reclining chair, the combination with the foot section frame thereof, having a cross-bar arranged within the same above the lower end of the frame, a spring-actuated bolt arranged in the cross-bar, and means for operating the bolt, of the foot-section 18 axially pivoted at 17 between the lower ends of the frame, and having at one edge the bolt-socket, and the foot section 19 hinged to the opposite edge of the section 18 and having in its outer side, at its center, the bolt-socket 20, substantially as specified.

3. In a reclining chair, the combination with the foot frame having the transverse bar above its lower end, the bearing bracket arranged thereon, the bell-crank lever pivoted at its angle on the bar, the operating lever 29 hinged to the side of the frame, the connecting wire between the same and the upper end of the bell crank, the spring-barrel arranged in the bar 16 and the bolt depending from the spring-barrel and bar, the foot-section 18 axially pivoted below the bar within the frame, and provided at one edge with the bolt-socket 21, and the foot section 19 hinged at one side to the opposite edge of the frame and having the bolt-socket 20, 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.

EDWARD HARRISON LOVEJOY.

Witnesses:

S. L. BUTLER,

W. G. DUNCAN.