

(No Model.)

2 Sheets—Sheet 1.

C. E. ANDERSON.

INVALID-CHAIR.

No. 338,330.

Patented Mar. 23, 1886.

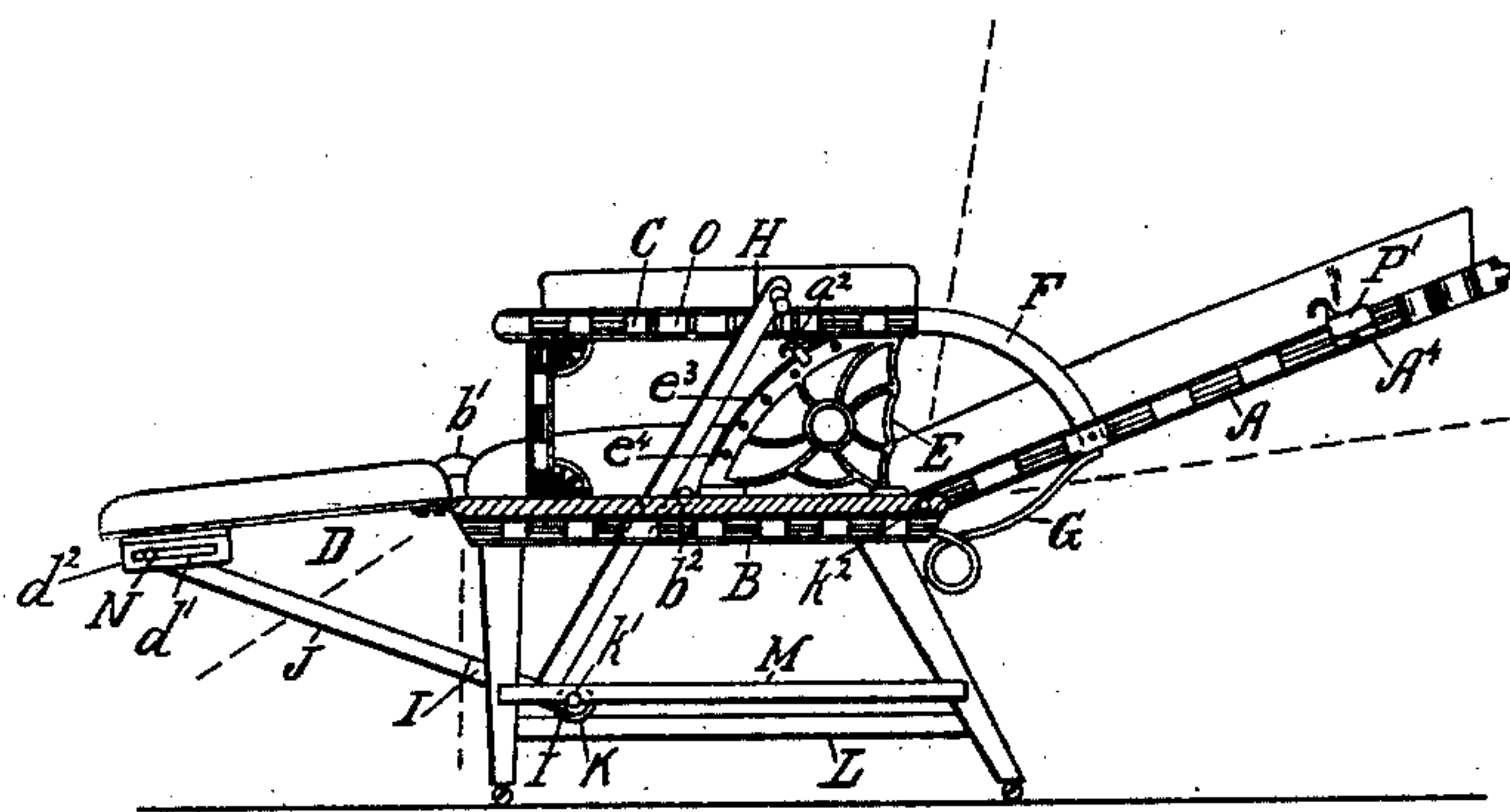


Fig. 1.

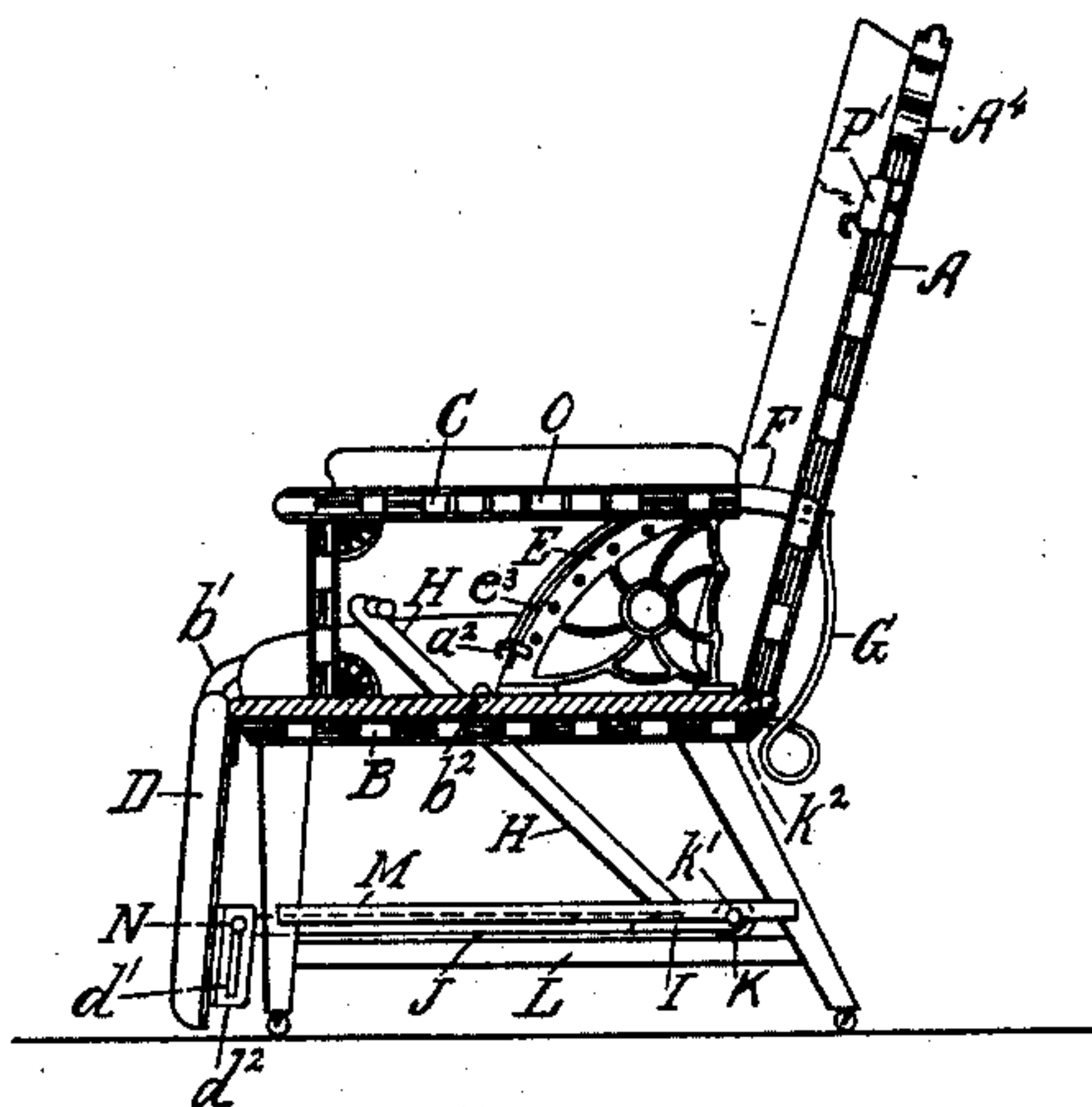


Fig. 2.

Witnesses
A. Edmunds
Carl Hayden

Inventor
Charles Edward Anderson
By P. J. Edmunds
Attorney

(No Model.)

2 Sheets—Sheet 2.

C. E. ANDERSON.

INVALID CHAIR.

No. 338,330.

Patented Mar. 23, 1886.

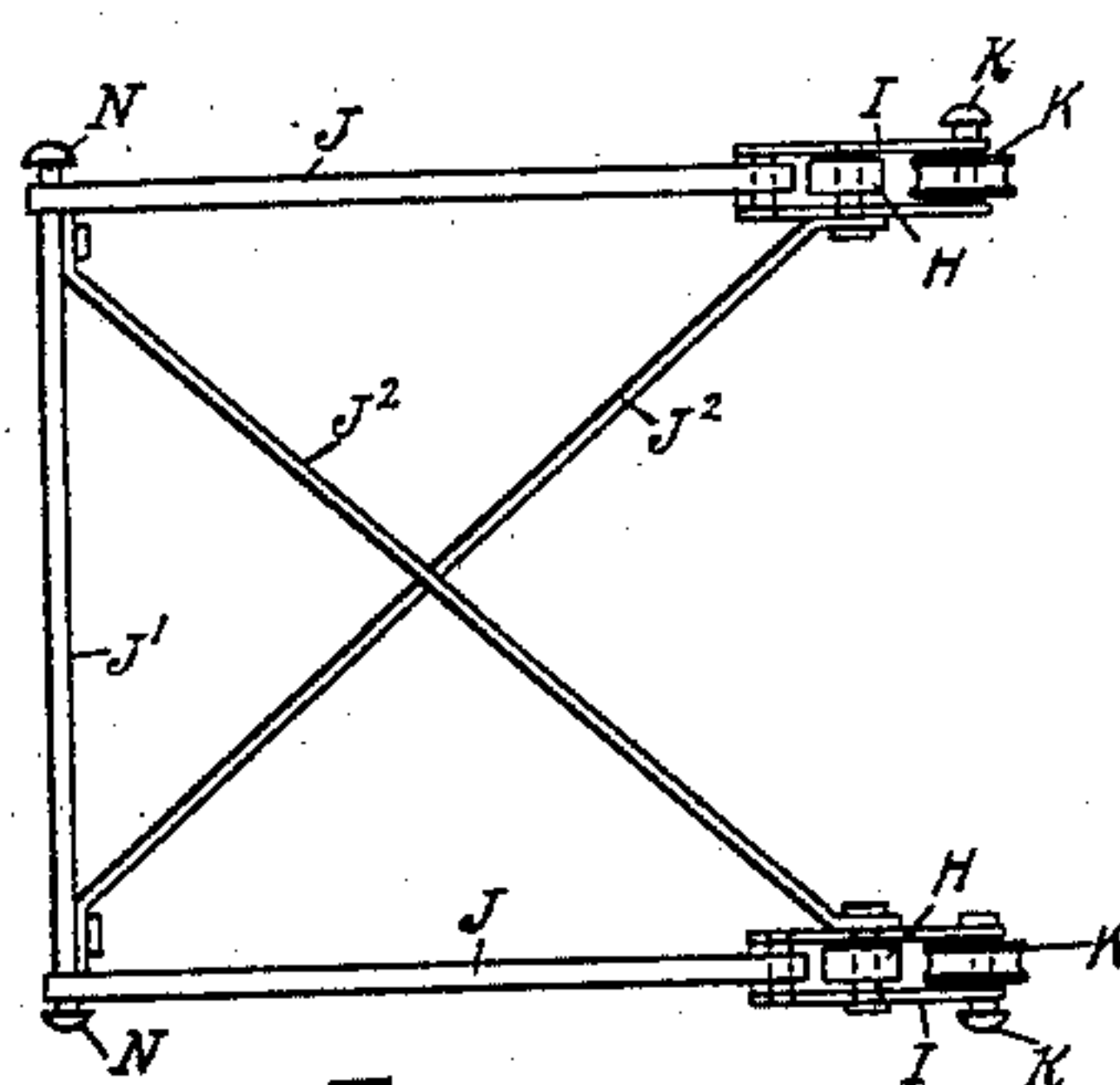


Fig. 3.

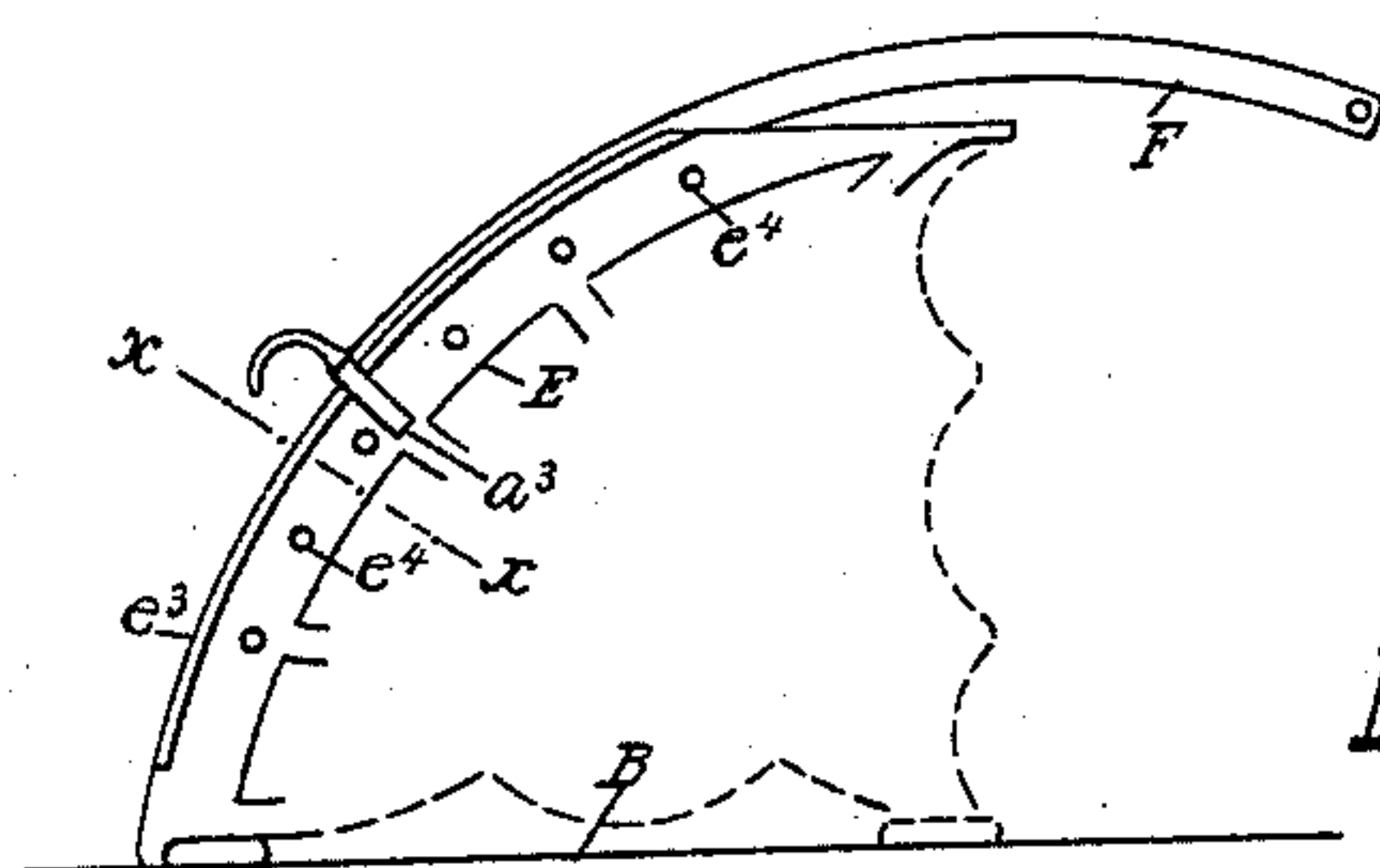


Fig. 4.

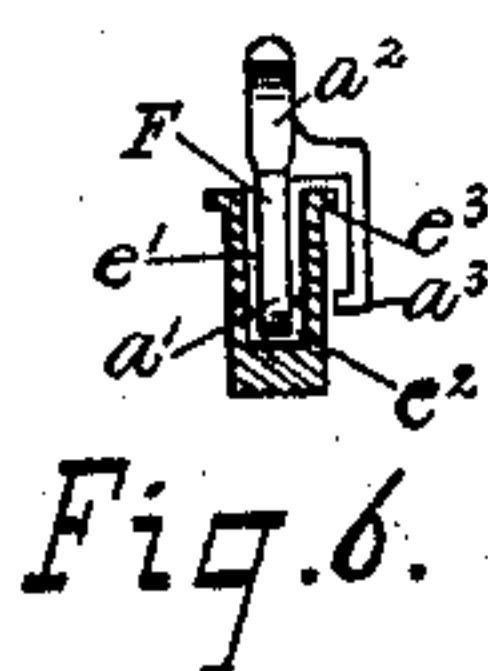


Fig. 6.

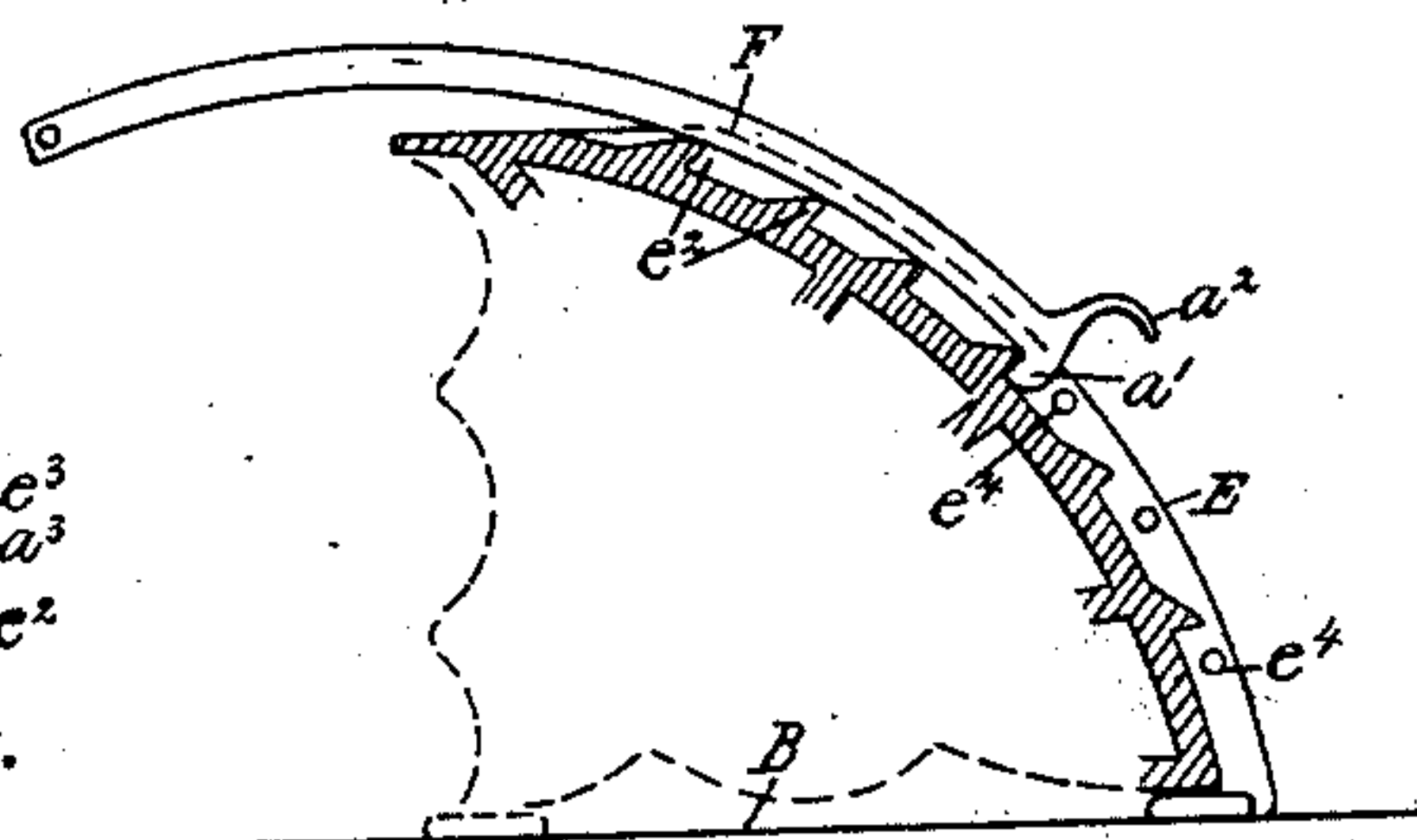


Fig. 5.

Witnesses
A. Edmunds
Carl Hayden

Inventor
Charles Edward Anderson,
by P. J. Edmunds
Attorney

UNITED STATES PATENT OFFICE.

CHARLES EDWARD ANDERSON, OF LONDON, ONTARIO, CANADA.

INVALID-CHAIR.

SPECIFICATION forming part of Letters Patent No. 338,330, dated March 23, 1886.

Application filed December 22, 1884. Renewed December 9, 1885. Serial No. 185,192. (No model.)

To all whom it may concern:

Be it known that I, CHARLES EDWARD ANDERSON, a subject of the Queen of Great Britain, residing at the city of London, in the county of Middlesex, Province of Ontario, Canada, machinist, have invented certain new and useful Improvements on Invalid Easy-Chairs, of which the following is a specification.

10 This invention relates to an invalid's easy-chair capable of assuming and retaining any required position, from the erect to the prone; and it has for its object to furnish a strong, light, and durable chair that may be simply
15 and easily adjusted by the occupant or other person, and one that has no complicated parts that are liable to get out of repair, thereby preventing any possibility of the chair getting out of working order; and it consists of the
20 improved construction, arrangement, and operation of the chair and adjusting devices for adjusting the back and foot-rest of said chair, as will be hereinafter more fully described and claimed, reference being had to the accompanying drawings, wherein—

25 Figure 1 is a side view of an invalid's easy-chair in a prone position embodying my invention. Fig. 2 is another view of same in an erect position. Fig. 3 is an enlarged detail
30 plan view of my improved device for adjusting the foot-rest. Fig. 4 is an enlarged detail side view of the bracket and curved bar. Fig. 5 is another side view of same, partly in section. Fig. 6 is a cross-sectional view of
35 the bracket on the line *xx* of Fig. 4.

A designates the back of the chair, pivoted at the lower end on pivot-bolts *k*², secured in the seat B.

40 C C are the arms, and D the foot-rest, of the chair.

45 E is a bracket, one on each side of the chair, securing the rear end of the arm C to the seat B. In the upper curved face of this bracket E a groove, *e'*, is formed, and on the inner face of this groove a ratchet, *e*², is formed.

50 F is a curved bar pivotally connected at one end to the back A. The other end of this bar F is provided on the under side with a dog, *a'*, which engages with the ratchet *e*²; or this bar F may move back and forth perfectly free in the groove *e'* when required to raise or lower

the back A. This dog *a'* is disengaged from the ratchet *e*² by grasping and raising the lug *a*² by the hand, and this bar F is prevented from being lifted out of the groove by the
55 keeper *a*³, secured to the bar F, engaging with the flange *e*³, projecting out from the side of the bracket E.

*e*⁴ are pin-holes in the side of the bracket E, at suitable distances apart, in which a pin
60 may be inserted at the end of the curved bar F, to prevent said bar F from being moved forward by the spring G, thereby retaining the curved bar F, as well as the back A, by it, being pivotally connected thereto at any position to which it may be adjusted when re-
65 quired.

G is a flat spring secured at one end to the seat B. The other end of said spring rests against the back A, and is adjusted and coiled,
70 as shown in Fig. 1 of annexed drawings, to raise the back upright when the chair is not occupied, and when no pin is inserted in the pin-holes *e*⁴ of the bracket E. This spring G eases the back A of the chair going
75 down, and allows the back A to lower in an easy manner, preventing any jar, and also raises the back A of the chair to an upright position when unoccupied, or to any position the occupant desires.
80

D is a foot-rest hinged to the seat B, and provided with a band of leather or other suitable material, *b'*, to cover over the joint between the foot-rest D and seat B when raising
85 or lowering said foot-rest D.

H is a lever—one on each side of the chair—passing through the seat B and pivotally connected to the box I.

*b*² is a friction-wheel, the shaft of which is journaled in the seat B, on which wheel the
90 lever H is fulcrumed, to allow the lever H to move back and forth perfectly free when adjusting the foot-rest D.

J J are side bars—one on each side of the chair—and one of each passes through a slot
95 in one of the front legs. These bars J J are rigidly connected at one end to the boxes I I, and are rigidly secured at the outer end to a bar, *J'*, and these are stiffened and rigidly braced together by brace-rods *J*² *J*², connecting the boxes I I with the bar *J'*.
100

K is a grooved friction-wheel on each side

of the chair, which fits on the beveled upper edge of the bars L L, and the pivot-bolts K', on which these wheels K K revolve, are extended and flanged, which flange projects up 5 over on the side of the guide-bar M, which bar M guides and holds the grooved wheels K K true on the beveled upper edge of the chair-bars L L, as the box I is operated to move back and forth by the levers H H when raising or lowering the foot-rest D. These grooved 10 friction-wheels K K allow the levers H H to work perfectly free when raising or lowering said foot-rest D.

N is a pin with a flanged head projecting 15 out from the bar J at each side of the foot-rest D, which pin passes through the slot d' in the flange d^2 , which flange d^2 is rigidly secured to the foot-rest D, and this pin N is provided with a flanged head, which retains the pin in 20 the slot d' in said flange d^2 as the foot-rest D is raised or lowered. This foot-rest D is retained at any position to which it may be adjusted by engaging the sides of the levers H H with the teeth of ratchet O, rigidly secured 25 on each arm C C.

The operation of adjusting the back is as follows: When the back is adjusted, as shown in Fig. 2 of annexed drawings, and the occupant wishes to adjust it to the position shown 30 in Fig. 1, the occupant or other person grasps the lug a^2 of the curved bar F and disengages the dog a' from the ratchet e^2 . The occupant then reclines on the back A, his weight lowering it to the position shown in Fig. 2, or 35 any other position he wishes, when the lug a^2 and bar F are released and allowed to lower, which permits the dog a' to engage with the ratchet e^2 , and prevents the back lowering farther, unless the occupant wishes to 40 change his position, and releases the dog a' from the ratchet e^2 again, the weight of the occupant's body being sufficient to retain the back to the required position when occupied, or by inserting a pin in the pin-hole e^4 at the 45 end of the curved bar F, to prevent said bar from moving forward, prevents the spring G from acting on the back A to raise it when the weight of the person's body is removed from said back; but as soon as this pin is re- 50 moved the spring G brings the back to an upright position in an easy manner, and in the same manner when the back is lowering this

spring G permits the back to lower easily and without any jar when the dog a' engages with the ratchet e^2 .

The operation of adjusting the foot-rest is 55 as follows: When the foot-rest D is adjusted, as shown in Fig. 2 of annexed drawings, by grasping the handles or upper ends of the levers H H and drawing them backward, the 60 bars J J being connected to the same box I as these levers H H, the bars J J are projected forward, and they being connected to the foot-rest D by the pin N passing through the slot d' in the flange d^2 , the outer end of the 65 foot-rest D is permitted to rise to the position shown in Fig. 1 of annexed drawings, or to any other position the occupant desires, and by engaging the sides of the levers H H with the teeth of the ratchets O O the foot- 70 rest D, through its connections with said levers H H, is also retained at that position, or to any position to which it may be adjusted. All that is necessary to do is to disengage the levers H H from the ratchets O O when it is 75 required to lower said foot-rest D.

Having thus described my invention, I claim—

1. The combination of the bracket E, provided with the groove e' , ratchet e^2 , pin-holes 80 e^4 , and flange e^3 , and curved bar F, provided with lug a^2 , dog a' , and keeper a^3 , and spring G, with the back A, pivotally connected to the chair, for the purpose of causing the back 85 A to assume and retain any position, from the erect to the prone, to which it may be adjusted, substantially as shown and described.

2. The combination of the levers H H, ratchets O O, boxes I I, friction-wheels b^2 b^2 , grooved friction-wheels K K, beveled bars L 90 L, guide-bars M M, pivot-bolts k' k' , bars J J J', brace-rods J² J², flanged pins N N, flanges d^2 d^2 , provided with slots d' , joint-cover b' , and foot-rest D, hinged to the chair, for the purpose of causing the foot-rest D to assume 95 and retain any position to which it may be adjusted, from the erect to the prone, substantially as shown and described.

In testimony whereof I affix my signature in presence of the two undersigned witnesses.

CHARLES EDWARD ANDERSON.

Witnesses:

P. J. EDMUNDS,

A. EDMUNDS.