

(No Model.)

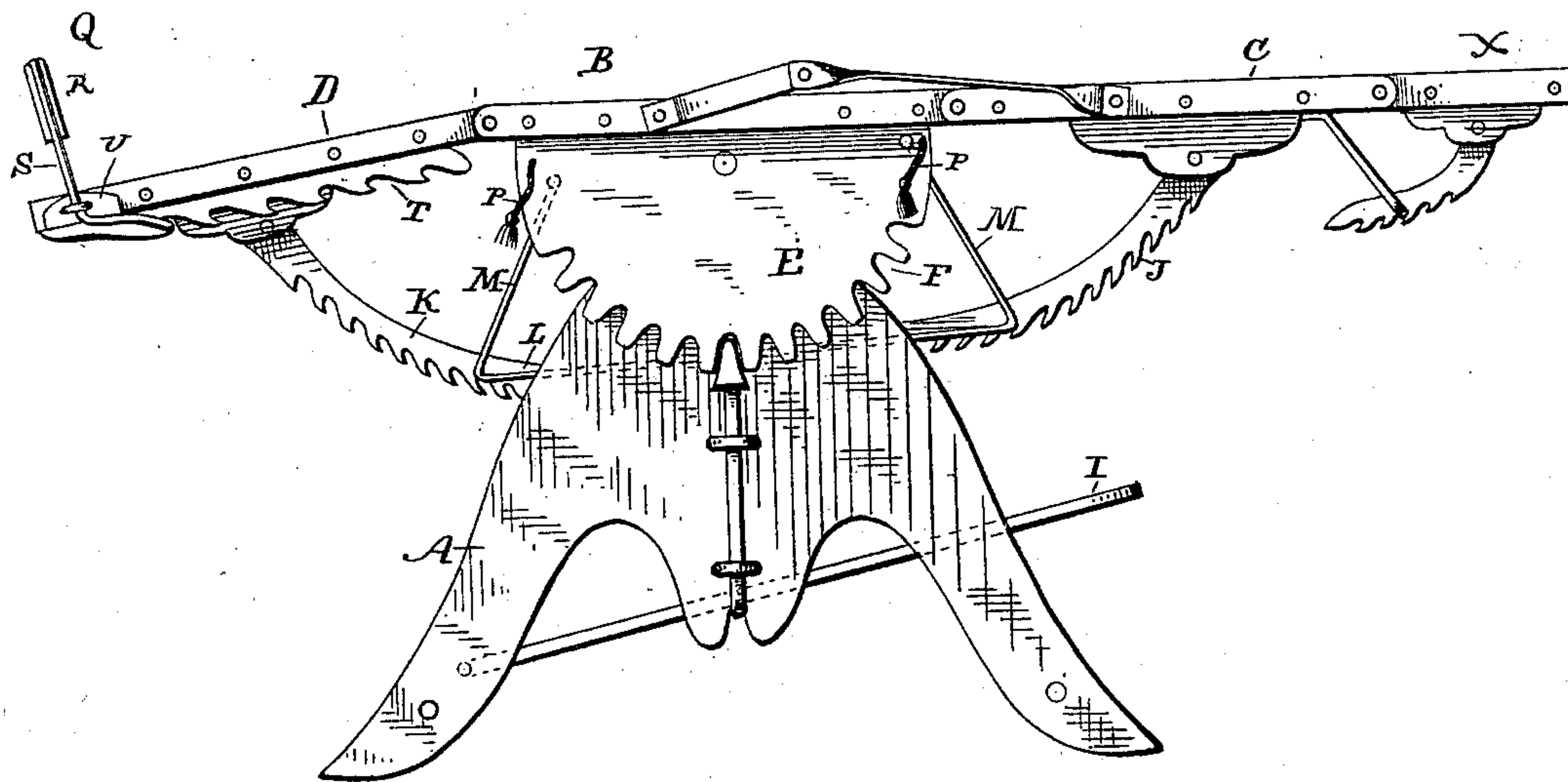
2 Sheets—Sheet 1.

F. A. KRILL.
SURGEON'S OPERATING CHAIR.

No. 278,241.

Patented May 22, 1883.

Fig. 1.



WITNESSES:

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A. G. Syne.

INVENTOR:

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BY *Wm. L. C.*
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(No Model.)

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Fig. 2.

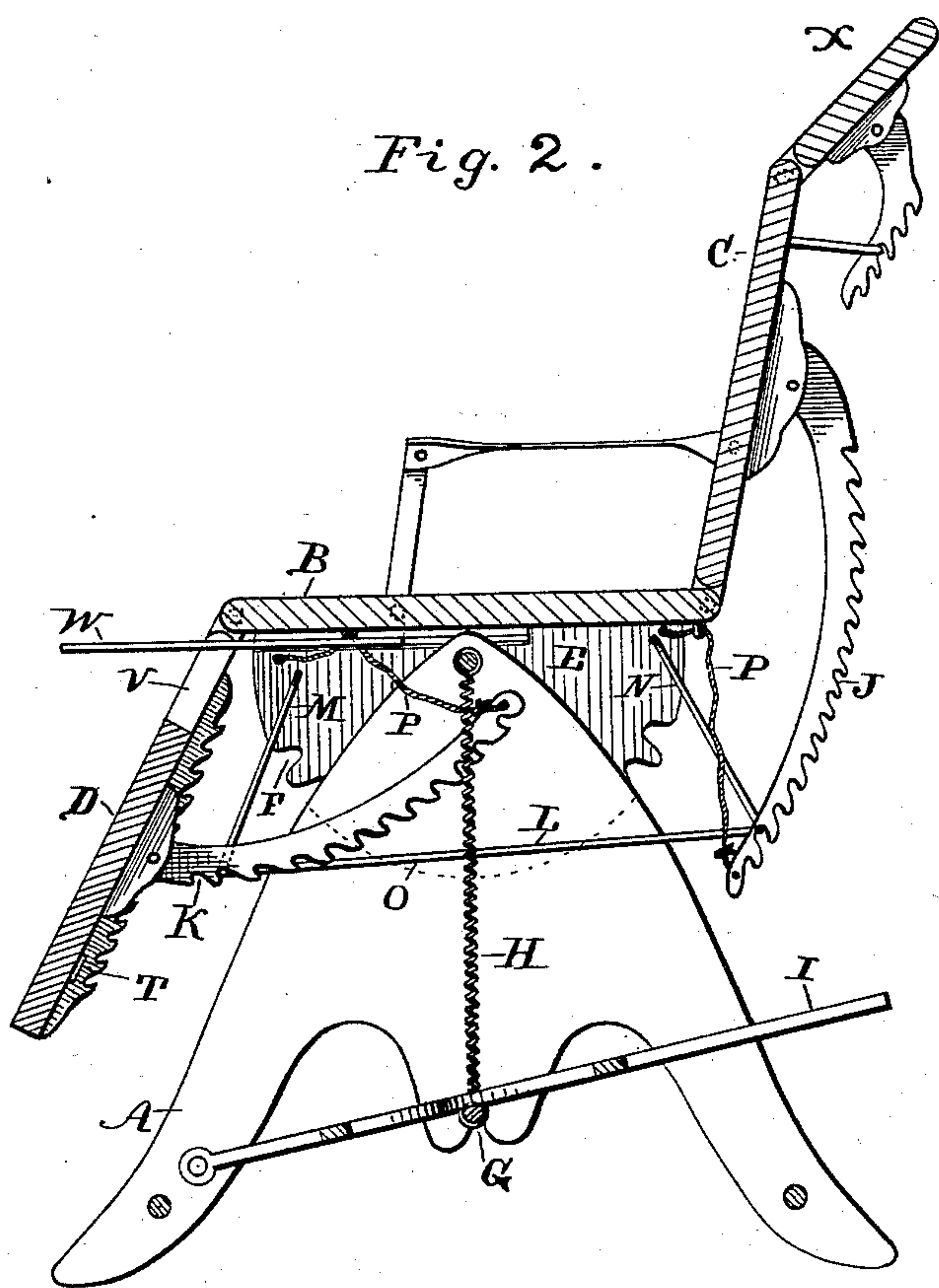
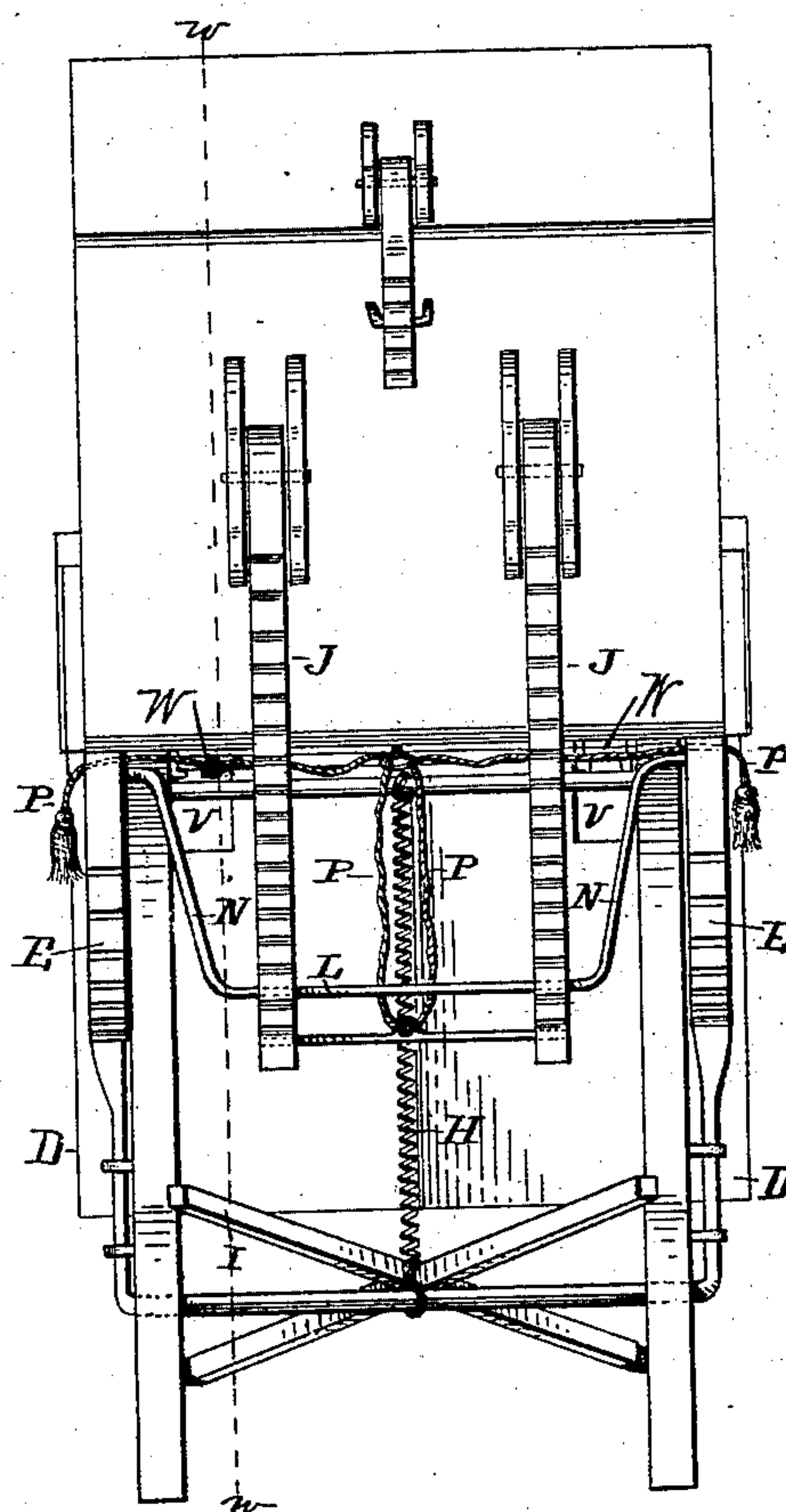


Fig. 3.



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INVENTOR:

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UNITED STATES PATENT OFFICE.

F. ADON KRILL, OF BURTON, OHIO, ASSIGNOR OF ONE-HALF TO FOREST J. HINKSTON, OF SAME PLACE.

SURGEON'S OPERATING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 278,241, dated May 22, 1883.

Application filed January 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, F. ADON KRILL, of Burton, in the county of Geauga and State of Ohio, have invented a new and useful Improvement in Surgeons' Operating-Chairs, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, forming part of this specification.

This invention relates to surgical and invalid chairs and tables; and the invention consists of the novel construction hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my improved operating-chair. Fig. 2 is a longitudinal vertical section of the same; and Fig. 3 is a rear elevation.

A indicates the supporting-frame of the chair, having the seat-section B pivoted centrally to its sides, and the back-section C and the two leg-sections D D hinged to the rear and front edges, respectively, of the seat-section in the usual manner. The seat-section B is provided with downward-projecting semi-circular plates or bars E, which overlap the outer sides of the frame A and add to the strength of the connection. In the curved edges of these plates or bars are formed a series of notches, F, with which the upward-extending ends of the bent rod G, supported underneath the frame A, are adapted to engage to prevent the seat-section from oscillating, and the rod G, which is held in engagement with the notched plates E by a spiral spring, H, secured underneath the seat-section, is to be disengaged from said plates by the downward pressure of the foot-lever I, which is fulcrumed on the said rod. The foot-lever is formed of two cross-bars hinged to the forward part of frame A, and having their rear ends extending to opposite sides of the chair, respectively, in such manner that they may be easily reached with the foot from either side of the chair when the back-section is lowered to a horizontal position.

I am aware that a reclining-chair has been provided with a single quadrant-shaped notched sector arranged thereunder, and a spring-actuated treadle adapted to hold the sector adjustably. The quadrant-shaped sector, however, only adapts the seat for being tilted backward from a horizontal position, while in my

invention the seat-section is adapted to be tilted either forward or backward from a horizontal plane.

The special arrangement of the two notched plates to overlap the sides of the supporting-frame also is an important feature in my invention, since the plates are thus adapted to serve the additional purpose of securing increased strength to the parts, as well as steadiness of movement to the seat-section when the latter is being adjusted from one position to another. The cross-bars of the foot-lever I are arranged with their point of intersection directly over the center of the bent rod G, so that when the rear end of either bar is used for depressing the rod the force exerted will be brought to bear centrally upon the rod in order that the ends of the rod may be simultaneously disengaged from the notched plates.

The back-section C and the leg-sections D D are to be supported in the desired positions by means of ratchet-bars J K, respectively. It is common to use such ratchet-bars in chairs of this class; but heretofore the bars, which are pivoted to the under side of their respective sections, have been supported in stirrups independent of each other, so that a simultaneous movement could not be given to all the sections.

To adapt the sections for a simultaneous movement I provide a frame, L, consisting of two stirrups, M N, which are suspended from the front and rear ends of the semicircular plates, and the rods O, which connect the stirrups together and hold them rigidly in a given position. The frame L is thus adapted to move with the seat-section, and consequently when the ratchet-bars J K are placed in engagement with said frame L a single adjustment of the seat-section will suffice to give a similar adjustment to the other sections. A certain degree of elasticity may be secured to the back and leg sections, if desired, by slightly curving the connecting-rods of the stirrups.

The two ratchet-bars J of the back-section are to be connected together by a cross-rod, and the said bars are to be lifted out of engagement with the stirrups N by a cord, P, connected to the center of the said cross-rod, and passed through an eye underneath the seat-section, and having two branches extend-

ing thence to opposite sides of the chair, where they may be conveniently reached. The ends of the cord may be passed through perforations in the rear ends of the plates E, and provided with rings or knots to prevent them from being accidentally withdrawn. The ratchet-bars K of the two leg-sections are arranged independent of each other in order that the two sections may be adjusted differently, and consequently each of the bars K is provided with a cord, P, arranged as above described, and having branches extending through perforations in the forward ends of the plates E at opposite sides of the chair.

When the leg-sections are adjusted in the same plane the foot-rest Q, which is removable and adjustable up and down the said sections, is to be attached, as shown in Fig. 1. This rest consists of a bar or board, R, having a bent rod, S, secured to each end, which rods are adapted to pass under the leg-sections and engage with ratchet-bars T, secured thereto. The ratchet-bars T are so arranged as to form edges at the sides, upon which heels U, connected to the rods S, are set to support the pressure upon the foot-rest and to hold the said rods in engagement with the ratchets. With this construction the rest may be adjusted higher or lower, as desired, or removed altogether when not wanted.

In some cases it is necessary that the feet of the patient shall be drawn up nearly to a level with the seat, and that the leg-sections shall be let down out of the way. To adapt my chair for such cases I form openings V through the leg-sections, at their upper ends, and provide two sliding foot-rests, W, which are supported underneath the seat-section, and are adapted to be drawn out through the said openings when the leg-sections are let down.

The back-section may be provided with a

hinged extension, X, supported by a ratchet-bar and stirrup in the usual manner.

In defining the limits of my invention more particularly I would state that I do not broadly claim a pivoted chair-seat having a segmental rack combined with a lever having means for engaging the rack to hold the seat in a given position. Neither do I broadly claim a chair having hinged sections or a divided leg-section and ratchet-bars and stirrups for adjusting the sections; but

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the supporting-frame and the segmental notched plates fixed on the seat and overlapping the sides of the supporting-frame, of a single spring-supported bar having its ends bent upward to engage both of said plates, and secured in keepers on the sides of the supporting-frame, and a lever for depressing said bar, whereby both plates may be adjusted by a single operation, as specified.

2. The combination, with the seat-section and the back and leg sections having ratchet-bars pivoted to their under sides, of a supporting-frame for the ratchet-bars, consisting of two stirrups rigidly connected together and secured to the seat-section, substantially as shown and described.

3. The combination, with the chair-seat and supporting-frame, of leg-sections provided with recesses V, and hinged to the seat, and supports W W, fitted to supporting guide-ways beneath the seat, whereby they may be drawn out singly or together, as and for the purpose set forth.

F. ADON KRILL.

Witnesses:

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OLIVER GRIDLEY.