

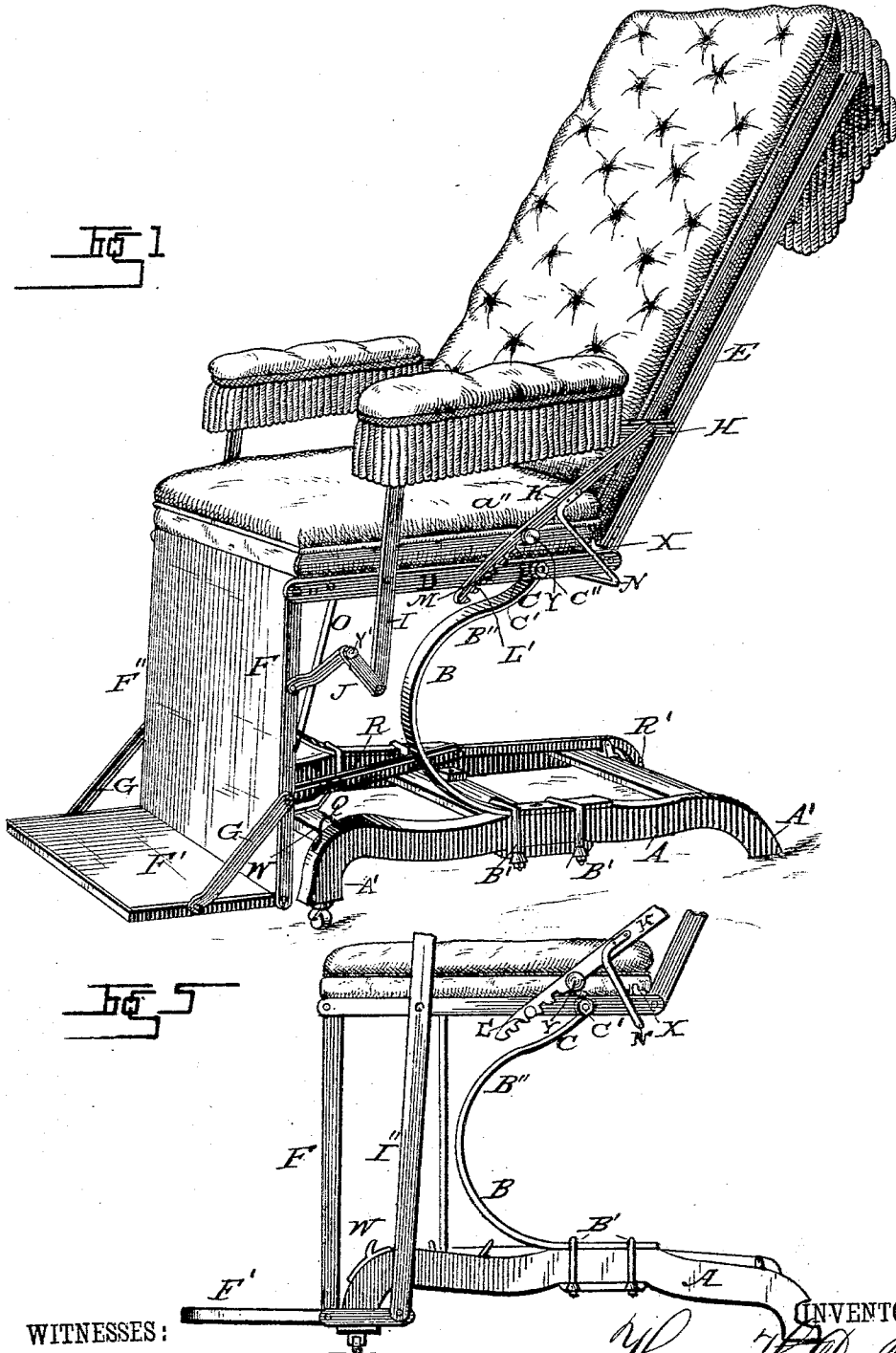
(No Model.)

3 Sheets—Sheet 1.

H. H. DE PEW.
CONVERTIBLE CHAIR.

No. 300,228.

Patented June 10, 1884.



WITNESSES:
Wm. S. Dietrich,
J. Fred. Reilly.

INVENTOR.
Henry H. DePew
 By *Louis Bagger & Co.*
 ATTORNEYS.

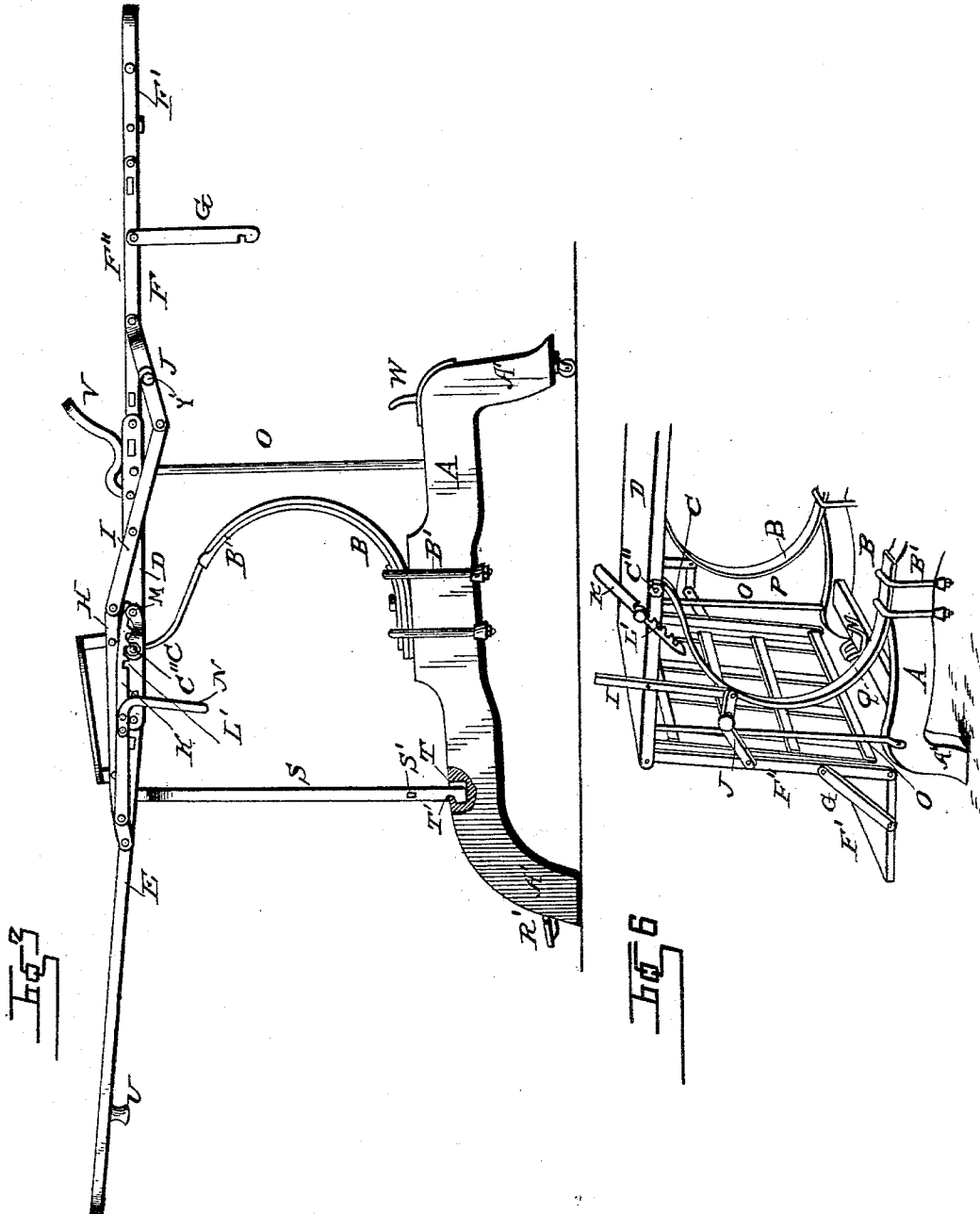
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3 Sheets—Sheet 3.

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J. Chad. Peck

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UNITED STATES PATENT OFFICE.

HENRY HANNON DE PEW, OF MAQUOKETA, IOWA.

CONVERTIBLE CHAIR.

SPECIFICATION forming part of Letters Patent No. 300,228, dated June 10, 1884.

Application filed August 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. DE PEW, a citizen of the United States, and a resident of Maquoketa, in the county of Jackson and State of Iowa, have invented certain new and useful Improvements in Convertible Chairs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

• Figure 1 is a perspective view of my improved convertible chair, showing the same in an upright position. Fig. 2 is a similar view of the chair held in a reclining position by the adjustable fastenings. Fig. 3 is a side view showing the chair in a position to be used as a surgeon's operating-table. Fig. 4 is a perspective view of the chair in position for gynecological or other similar operations. Fig. 5 is a side view of a modification of my invention, and Fig. 6 is a perspective view of a modification of my invention.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to convertible chairs; and it consists in the improved construction and combination of parts of a chair which may be adjusted so as to adapt it to be used either as an easy chair or as a surgeon's operating chair or table, as will be hereinafter more fully described and claimed.

In the accompanying drawings, A represents a square or rectangular frame provided with suitable legs or feet, A', which forms the base of my chair. Upon the sides of this frame are clamped two springs, B, by clamps or clips B' B', rendering the lower ends of these springs adjustable forward or backward, as may be found necessary, to properly balance the chair upon its base. The springs B are carried forward a short distance, and then bent back upon themselves in a large semicircle, as seen at B'', the upper ends of the springs having a slight reverse curve upward, as seen at C, and terminating in eyes C', in which is journaled

a cross bar or round, C'', upon which the seat of the chair A'' is secured.

D D indicate the side pieces of the chair-seat, to the rear ends of which are pivoted the lower ends of the frame E, forming the back of the chair, while to the front ends of the side pieces, D D, are pivoted the upper ends of the frame F, forming the foot-rest. The lower part, F', of the foot-rest is held at right angles to the upper part, F'', of the same by means of braces G, which may be thrown out of connection when desired, in order to allow the lower part of the foot-rest to be straightened out in a line with the upper part when the chair is extended to adapt it to be used as a surgeon's operating-table.

H indicates the arm-rests, each of which is pivoted at its rear end to the side frame of the chair-back E, and at its front end to an upright bar, I, which is pivoted at its center to the side frame of the chair-seat D, and to the lower end of which (bar I) is pivoted the end of a hinged bar, J, the front end of which is pivoted to the side frame of the upper part of the foot-rest F.

K represents ratchet-bars, each of which is pivoted at one end to the rear part of the arm-rest H, and is provided on its lower edge with a series of teeth, L', which are adapted to engage with a stud, M, projecting from the side pieces of the seat-frame D. The teeth L' are beveled or cut away on their front edges to adapt them to slide over the studs M when the chair is raised into an upright position, while the rear edges of the teeth are made perfectly straight to adapt them to hold the chair firmly against backward pressure. The ratchet-bars K are connected together by a curved rod, N, so that by moving one ratchet-bar to adjust it the other will be adjusted at the same time.

O O represent curved supporting-bars, the upper diverging ends of which are pivoted to either side of the seat D, while their lower converging ends have secured between them a cross-head, P, the front end of which is adapted to enter a slot in an upwardly-projecting plate, Q, secured to the front cross-piece of the frame A.

To the rear end of the cross-head P is pivoted the forward end of the hinged rod or lever R, supported in suitable bearings upon the rear cross-piece of the frame A. When the hinged rod R is extended in a straight line, which is its normal position, it serves to hold the cross-head P in its locked position, while by pressing with the foot upon the downwardly-curved rear end, R', of the said rod the cross-head P will be freed from the slotted plate Q, in order to allow the chair to be swung back into the position shown in Fig. 4 of the drawings.

S S represent supporting rods or legs, which are connected together by a cross-piece, S', and are pivoted at their upper ends to either side of the frame of the chair-back. The lower ends of the legs S fit within recesses T in the side pieces of the frame A, and are provided with notches T', which serve as catches to hold the said legs in their locked position. The legs S S are for the purpose of acting as an additional support when the chair is adjusted to act as a surgeon's operating chair or table, and when not in use may be folded up against the back of the chair, where they are held by a turn-button, U.

V represents stirrups, which are pivoted to either side of the chair-seat, near its forward end, and which are used for holding or resting the feet in gynecological or other similar operations, the stirrups being folded back under the cushions when not in use.

W W indicate upwardly-projecting pieces upon the forward part of the frame A, against which the foot-rest bears when the chair is in its upright position.

X X indicate turn-buttons, which may be turned to lock the back of the chair in a line with the seat when the chair is extended to form a surgeon's operating-table. The ratchet-bars K and the hinged rods J are provided with knobs or handles Y Y', by which they may be conveniently operated.

From the foregoing description, taken in connection with the accompanying drawings, the construction of my improved convertible chair will readily be understood without requiring further explanation.

It will be seen that my improved chair is simple in construction, and, being devoid of all complicated parts, is not liable to break or get out of order. By throwing back the back of the chair the foot-rest will be elevated, as will readily be understood by reference to the drawings, while by moving the back forward the foot-rest will be lowered in a similar manner. The curved and pivoted bars O O serve as an additional support for the chair when the latter is in an upright position, while by means of the hinged lever R the cross-head P can be disengaged from the slotted plate Q, when it is desired to swing the chair into the position shown in Fig. 4 of the drawings. The other parts of the chair operate in the manner previously described.

For the treatment of uterine displacement and hernia the patient is placed in the chair, which is then inclined to any desired point—for instance, to the position shown in Fig. 4—when the attendant, taking hold of the back of the chair, gives it a backward and forward motion. The bending of the supporting-springs B B under this motion and the weight of the patient also gives the chair an up-and-down movement, this combined motion, more or less powerfully applied, being just what is required to reduce the uterine displacement or hernia and restore the displaced parts to their normal position.

It will be seen that my improved convertible chair can be used as an upright easy-chair, a reclining-chair, a surgeon's operating chair or table, for the treatment of uterine displacement and hernia, for gynecological operations, and as a single or double chair or seat in railway-cars or theaters.

When it is desired to use the chair as an easy-chair for railway-cars or for theaters, the lower converging ends of the curved supporting-bars O O may be rigidly fastened to the center of the front cross-beam of the frame A, or the said supporting-bars may be made perfectly straight and fastened to the side pieces of the frame A, as shown in Fig. 6 of the drawings.

If desired, the upright bar I may be extended down to a level with the bottom of the foot-rest, and connected thereto by a plain bar, I', as is clearly shown in the modification Fig. 5 of the drawings. When so constructed, the brace G is dispensed with.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the base A, springs B, having a semicircular curve, B', with their upper ends having a slight reverse curve upward, and terminating in an eye, C', cross-bar C'', journaled therein, chair A'', consisting of the back E, side D, the frame of which is provided with studs M and foot-rest F, pivoted together, as described, arm-rest H, upright bar I, and hinged bar J, ratchet-bars K, having teeth L', adapted to engage with the studs M, and connected by a curved rod, N, supporting-bars O O, having a cross-head, P, adapted to engage with the slotted plate Q, slotted plate Q, and hinged lever R, supported in suitable bearings upon the rear cross-piece of the frame A, all constructed and arranged to operate substantially in the manner and for the purpose shown and set forth.

2. The combination of the base A, springs B, having a semicircular curve, B', with their upper ends having a slight reverse curve upward and terminating in an eye, C', in which is journaled a cross-bar, C'', chair A'', consisting of the back E, seat D, and foot-rest F, pivoted together, as described, arm-rest H, upright bar I, and hinged bar J, ratchet-bars K, having teeth L', adapted to engage with

studs M, and connected by a curved rod, N,
pivoted legs S S, adapted to serve as an ad-
ditional support when the chair is extended
to form a surgeon's operating chair or table,
5 supporting-bars O O, having cross-head P,
adapted to engage with the slotted plate Q,
and hinged lever R, supported in suitable
bearings upon the rear cross-piece of the frame
A, all constructed and arranged to operate as
10 and for the purpose shown and described.

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

HENRY HANNON DE PEW.

Witnesses:

J. L. ENOS,
M. F. PARMLEY.