(No Model.) 3 Sheets—Sheet 1.

L. JORGENSEN.

CONVERTIBLE CHAIR.

No. 454,276. Patented June 16, 1891.

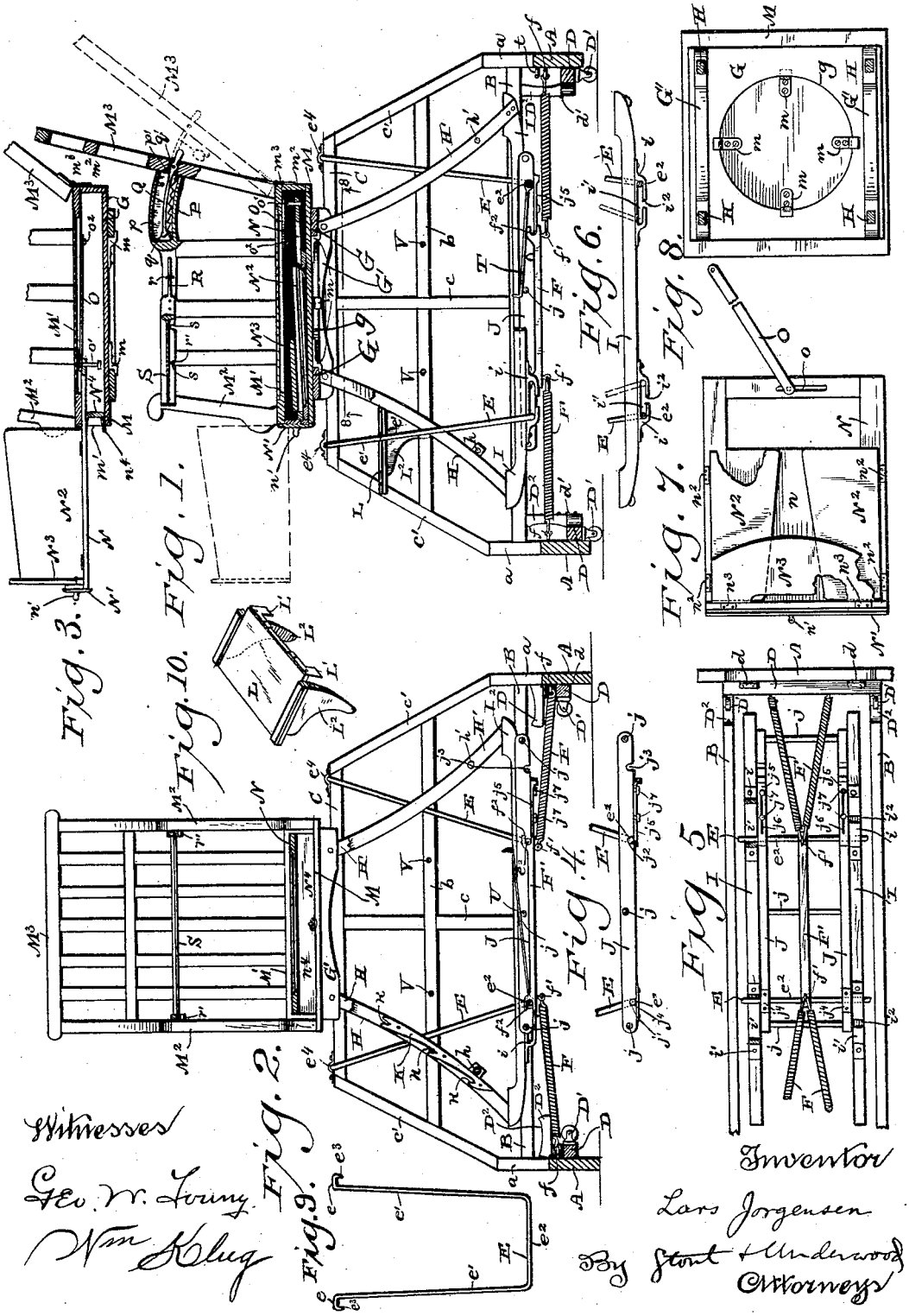

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Fig. 10.

Witnesses

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(No Model.) 3 Sheets—Sheet 2.

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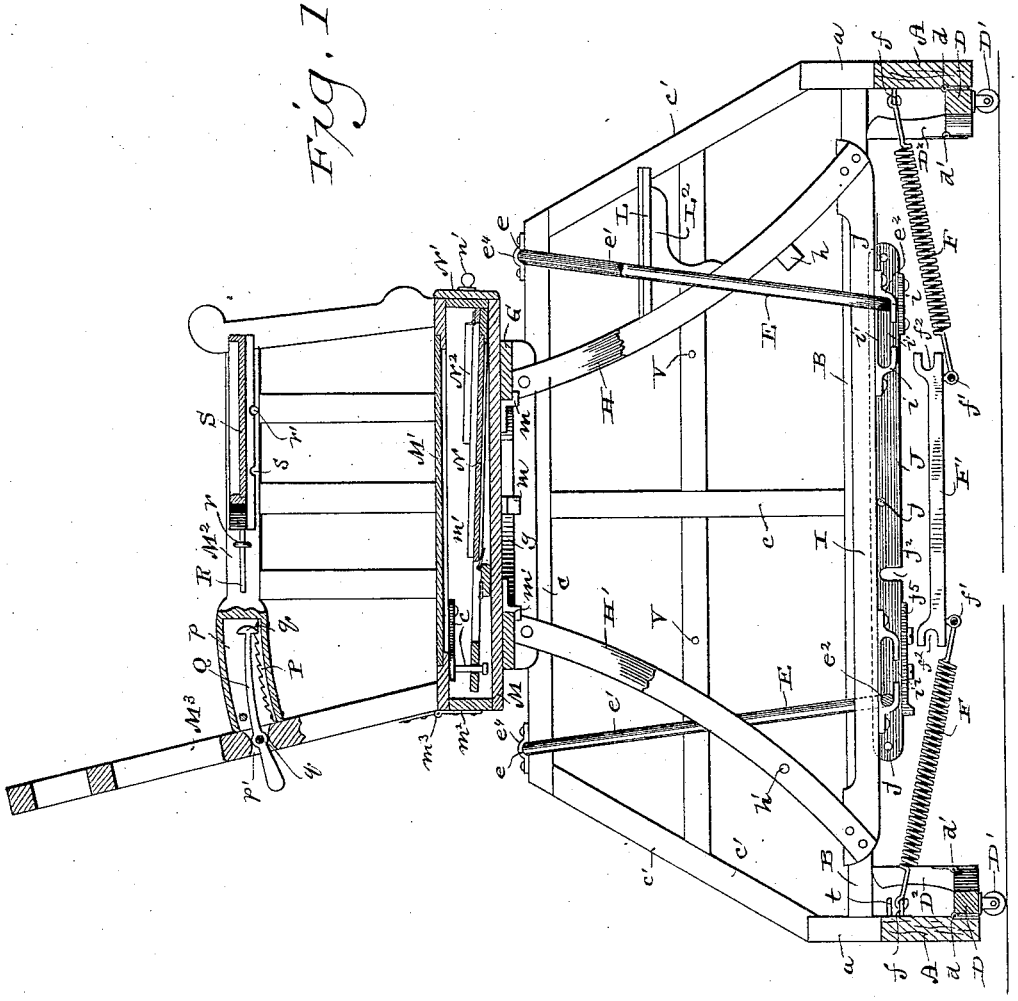
Fig. 11.



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(No Model.) 3 Sheets—Sheet 3.

L. JORGENSEN.

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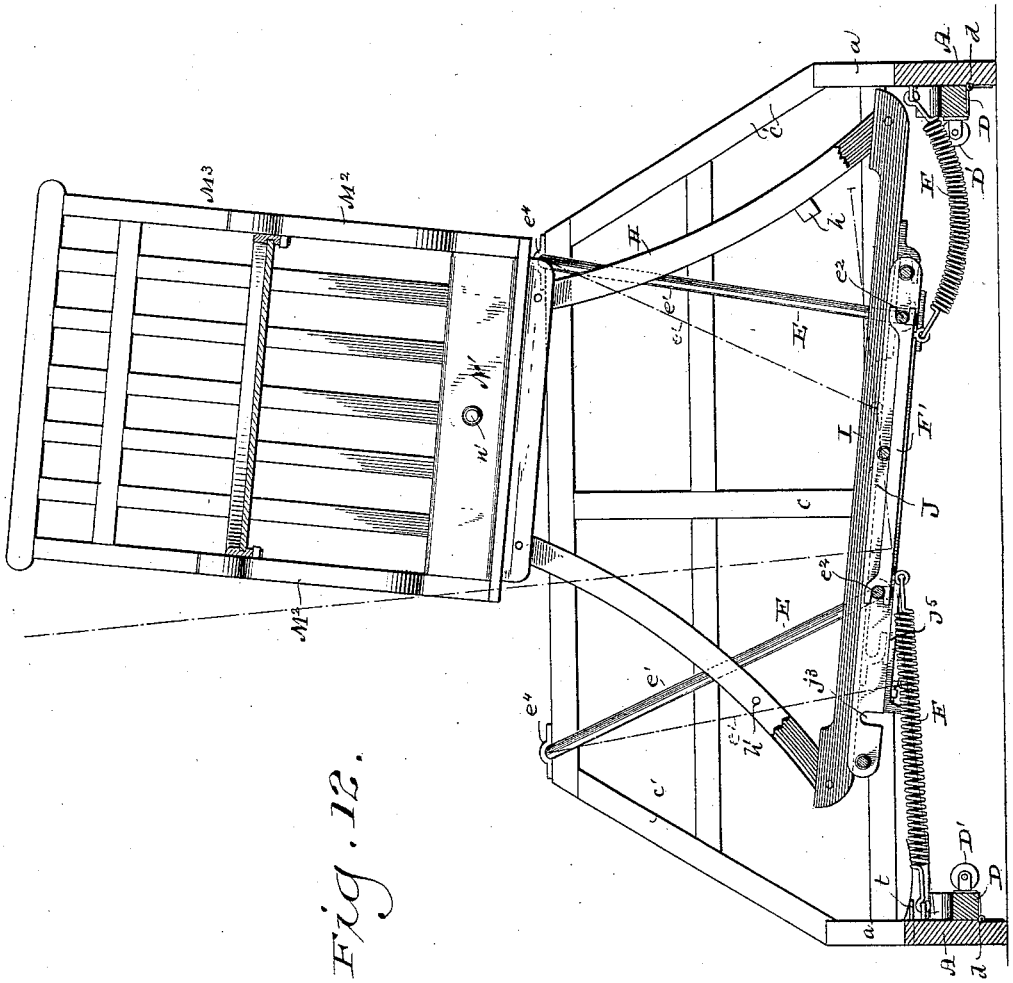

Fig. 12.

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UNITED STATES PATENT OFFICE.

LARS JORGENSEN, OF MILWAUKEE, WISCONSIN.

CONVERTIBLE CHAIR.

SPECIFICATION forming part of Letters Patent No. 454,276, dated June 16, 1891.

Application filed July 22, 1889. Serial No. 318,345. (No model.)

To all whom it may concern:

Be it known that I, LARS JORGENSEN, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, 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 thereof.

My invention relates to convertible chairs of the kind especially designed for use in the nursery; and it consists in certain peculiarities of construction, as will be fully set forth hereinafter and subsequently claimed.

In the drawings, Figure 1 is a vertical longitudinal section of my chair with portions broken away and arranged for a swinging movement with a movable base. Fig. 2 is a similar sectional view of the lower part of the frame with some portions thereof differently arranged and the upper part which supports the seat turned at right angles thereto, the device being arranged for a rocking movement with a stationary base. Fig. 3 is a detail view showing the base of the upper part extended to form a crib or cradle. Fig. 4 is a detail view of one of the inner lower side pieces of the seat-supporting frame. Fig. 5 is an under side plan view of the lower portion, partly broken away. Fig. 6 is a detail view of one of the outer lower side pieces of the seat-supporting frame. Fig. 7 is a detail plan view of the parts which form the foot of the cradle or crib folded, ready for being slid inward, out of place. Fig. 8 is an under side plan view of the attachment of the upper part of the frame to the lower part thereof, partly in section, on the line 8 8 of Fig. 1. Fig. 9 is a detail view of one of the swinging or rocking hangers, and Fig. 10 is a perspective view of the foot-rest. Fig. 11 is a transverse vertical section, on an enlarged scale, of the chair arranged for a rocking movement. Fig. 12 is a similar view of the same arranged for a swinging movement.

The object of my invention is to produce a chair the body or seat portion of which can be readily converted into a cradle and which shall be capable of either a rocking or a direct swinging motion upon its supports.

A A are the transverse end pieces of the lower part of my device, having end uprights *a a*, connected by the side bars B B, the latter forming, with the upper bars C C and connecting strips *b c c' c'*, (or ornamental or solid panels, if preferred,) the side frames of said lower part.

D D are two bars, which are hinged, as shown at *d d*, to the said transverse end pieces A A and provided at each end with casters D' D' and brace-pieces D^2 D^2, hinged, as shown at *d'*, to the bars D, adjacent to said casters. By means of this construction the bars D may be turned up against the transverse end pieces A, with the casters D' and brace-pieces D^2 extending inwardly and resting horizontally upon the bars D, so as to be out of the way, and with the lower portion of my device resting firmly on the floor on said end pieces A when a stationary base is desired, as in Figs. 2 and 12; or the said bars D may be let down, so that the casters D' will project below the bottoms of the end pieces A, and the brace-pieces D^2 turned outward on their hinges, so as to extend up against the under side of the side bars B, as shown in Figs. 1 and 11, and thereby lock the caster-bars D in this position when a movable or rolling base is desired.

E E are hangers, whose upper outturned ends *e* are journaled in seats formed in or on the upper bars C (or upper part of the side frames) with suitable boxes or caps e^4 to retain them in place, the said hangers each consisting of two slightly-inclined arms *e' e'*, united at the bottom by a cross-piece e^2, and their said outturned upper ends *e* are terminated in downward-extending lips or extensions e^3, (designed to be on the outside of the side frame or bars C,) all as best shown in Fig. 9.

F F are strong spiral springs, each of which is doubled into a V shape, the two ends of the base of each spring being secured by screw-eyes *f f* to the inner surface of one of the transverse end pieces A and the apex of each V having the coil preferably drawn out, as shown best in Fig. 5, and similarly secured to a screw-eye *f'*, depending from one end of a notched locking-bar F', there being of course a screw-eye *f'* adjacent to each end of said bar F'. A notch f^2 is located at each end of bar F' for the reception of the cross-pieces e^2 of the hangers E when it is desired to give the upper part of my device a rocking

motion, as shown in Fig. 2, and hereinafter described.

Within the described side frame (or side bars and strips B C *b c c' c'*) of the lower part of my device is located the seat-supporting frame, consisting of the platform G, with a circular opening *g* and under side cleats G' G', curved front bars H H and rear bars H' H' depending from said cleats to the outer lower side pieces I I, Fig. 6, of said frame, to which pieces the lower ends of the curved bars are firmly secured and the inner lower side pieces J J, Fig. 4. The pieces I I are each provided with under side lugs *i i*, having longitudinal slots *i'* and central bottom openings i^2 formed therein for the reception of the described cross-pieces e^2 of the hangers E, and the pieces J J are united by cross-rods *j j j* and are provided with notches j' j^2 j^3 on the under side, the forward notches j' being for the reception of the described cross-piece e^2 of the forward hanger E, secured in place therein by the cap j^4, while the cross-piece e^2 of the rear hanger E is adapted (according to the adjustment desired—that is, whether a rocking or the swinging movement is to be utilized) to be received in either the intermediate notches j^2 or the rear notches j^3, said cross-piece e^2 being secured in either of said notches by means of the sliding slotted catches j^5, whose slots j^6 enable them to travel on the headed pins j^7, which are secured to the under side of the inner pieces J.

From the above description it will be seen that when the lower parts e^2 of the hangers E are inserted into the inner notches j^2 of the bars J, as shown in Fig. 4, and also into the notches f^2 of the locking-bar F', as shown in Figs. 2 and 12, if motion be imparted to the chair one of said hangers temporarily forms the fulcrum or pivot and remains substantially stationary, while the other hanger moves inwardly by the upward and inward movement of the suspended frame-work at the end opposite to the hanger forming the fulcrum, as shown in dotted lines in Fig. 12, the movement being reversed to complete the rocking action. When, however, the cross-pieces e^2 are drawn out of the notches f^2 of the locking-bar F' and placed in the outer notches j^3 of the bar J and in the outer ends of the sockets *i* in bar I, as shown in Figs. 1 and 11, the chair will have only a direct swinging movement, the springs F in this instance being out of action and serving only to sustain the locking-bar in detached position from the hangers E.

Secured to the opposing inner sides of the front curved bars H H of the seat-supporting frame (which bars H H, as well as the rear curved bars H' H', are braced or strengthened by transverse connecting-rods *h* and *h'*) are plates K, having a series of retaining-notches *k k k* cut therein to receive the holding-dogs L' L' of the foot-rest L, Fig. 10, whose side pieces L^2 do not extend quite as far back as its top plate or foot-rest proper, and the curved rear edges of which side pieces consequently fit snugly against the forward faces of the said curved bars H H, in whichever of the notches *k k* the dogs L' may be placed in the desired vertical adjustment of said foot-rest.

M is the base-board of the upper portion or seat-frame of my device, and this is provided on its under side with four (more or less) rigidly-secured lipped guides *m m*, whose lips project under and hold the platform G and base-board M securely together, and yet permit the latter to be freely turned upon the former when desired, as shown in the change of position of the upper part from the position shown in Fig. 1 to that shown in Fig. 2.

M' is the seat proper, raised above the base-board M by the side pieces *m'* and back piece m^2, so as to form a box or receptacle under said seat M' above said base-board M, to receive the extensible frame N and its attachments, Fig. 7, which are used in forming the crib or cradle. This frame N consists of a flat board or rectangular frame with wooden filling *n*, which need only extend part way back, as shown, having a stationary front piece N', (provided with a handle, knob, or pull *n'*,) and with folding side pieces N^2 N^2, hinged at n^2 n^2, and also with folding end piece N^3, hinged at n^3 n^3. To the inner side of this frame or board N is hinged by its upper edge a strip N^4 with a ring or pull n^4, and the object of which when the frame N is pulled out and its outer end is raised up (with side and end pieces N^2 N^2 N^3 also raised) is to drop down and close the space beneath the frame N, and thus hold the same firmly in its raised position, as best shown in Fig. 3, making with the sides M^2 M^2 and back M^3 of the seat a crib or cradle. The inner end of this frame N is provided with a slot *o* to receive a pin *o'*, depending from one end of a link O, the other end of which is pivoted, as by bolt o^2, to the seat M'. The seat-back M^3 is hinged, as shown at m^3, to the rear of the seat M', so as to be inclined backward, when desired, to any desired extent, this being accomplished by means of rack-bars P (preferably located within recesses *p* in the rear of the top frames of the side pieces M^2 of the seat, as best shown in Fig. 1,) and locking-levers Q, having dogs or pawls *q* at their inner ends, being provided for engagement with the rack P and journaled on pivots *q'* in slots *p'* in the seat-back M^3. A slight pressure on the rearward projecting ends of said levers Q is sufficient to free their pawl ends from engagement with any tooth of the rack-bars, with which said levers will automatically re-engage by gravity as soon as released. The said top frames of the side pieces M^2 of the seat are further provided with screw-eyes *r* and pins or lugs *r'*, the former of which are to receive the projecting wire or other ends R of a tray or table S, whose side edges are provided on their under sides with notches *s s* for adjustable engagement with the said pins or lugs *r'* for supporting the tray or table.

T is a hook, one end of which is pivotally secured to the cross-piece e^2 of the rear hanger E, and the free end of which is brought into engagement with a screw-eye *t*, projecting from the inside of the rear transverse end piece A of the lower frame when it is desired to stop the swinging motion of the seat-supporting frame and keep it stationary. The said hook can be simply turned back out of the way, and rest on the intermediate cross-rod *j* of the pieces J J, as shown in Fig. 1, when a swinging motion is desired. U is a similar hook pivotally secured to the cross-piece e^2 of the forward hanger E to engage with a similar screw-eye projecting from the forward end piece A when it is desired to stop the rocking motion of the seat-supporting frame and keep it stationary, and which can also be turned back out of the way, like the hook T, just described, and rested on the said rod *j*, as shown in Fig. 2, the different adjustment of the hangers E E for swinging and rocking necessitating hooks of different lengths (or differently-located screw-eyes) for this purpose.

V V represent pins or stops projecting from the inner surface of the side frames (or central strips *b*) of the lower part of my device to limit the movement of the hangers E E as they swing or rock back and forth.

The operation of my device will be readily understood from the foregoing description of its construction, taken in connection with the drawings, whereby it will be seen that it can be readily and quickly converted into a stationary, swinging, or rocking chair, or crib or cradle on either a stationary or rolling base, and with the seat or upper part either in line with the base or at any angle thereto and with the back of the seat at any desired inclination, as well as permitting the tray or table to be adjusted horizontally and the foot-rest vertically, so as to adapt the device for many uses and for the use of children of different ages or sizes.

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

1. In a convertible chair, the combination, with a lower frame and hangers pivotally secured thereto, of a seat-supporting frame having slotted lower side pieces adapted to be secured to and rest on said hangers, adjustable inner side pieces, also adapted for engagement with said hangers, springs secured to the end pieces of the lower frame, and a notched locking-bar secured to said springs and adapted to engage with or be disengaged from said hangers, whereby the said seat-supporting frame may be given a swinging or rocking motion at pleasure, substantially as set forth.

2. In a convertible chair, the combination, with the side bars and end pieces of the frame, of bars hinged to the inner sides of said end pieces and having casters at each end and brace-pieces hinged near each end adjacent to said casters and adapted to engage with the under side of the side bars and lock the hinged bars firmly in position when the casters are turned down, substantially as set forth.

3. In a convertible chair, the combination, with the seat-base and seat raised above said base to form a receptacle, of an extensible frame slotted at its rear end, a link and pin within said receptacle connecting said slotted end with the seat, folding end and side pieces hinged to said extensible frame, and a brace-strip hinged to the under side of said extensible frame, substantially as set forth.

4. In a convertible chair, the combination, with the seat and its side pieces and hinged inclined seat-back, of an extensible frame having folding end and side pieces hinged thereto, and a link connecting said extensible frame with the under side of the seat, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

LARS JORGENSEN.

Witnesses:
H. G. UNDERWOOD,
WM. KLUG.