(No Model.)

2 Sheets—Sheet 1.

S. WILLIAMS.

CONVERTIBLE CHAIR.

No. 244,014. Patented July 5, 1881.

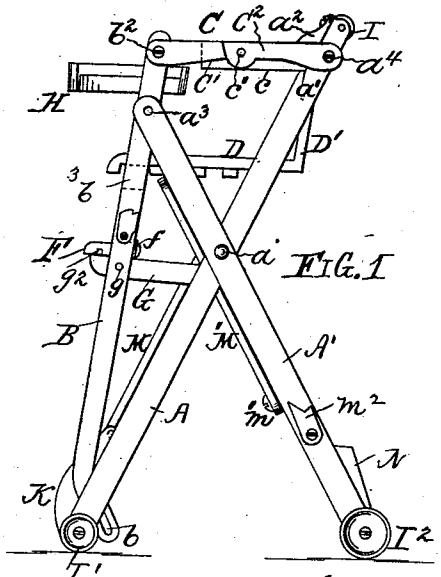


FIG. 1

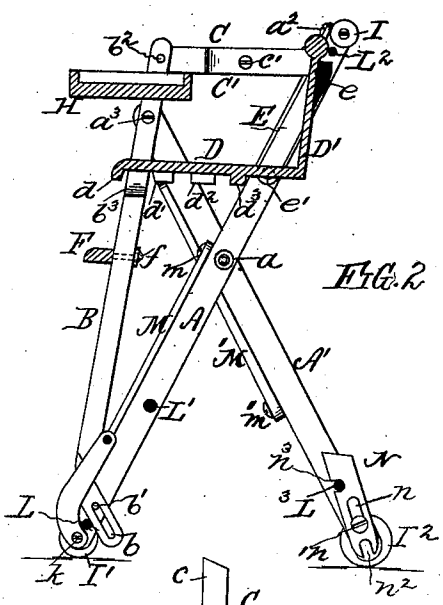


FIG. 2

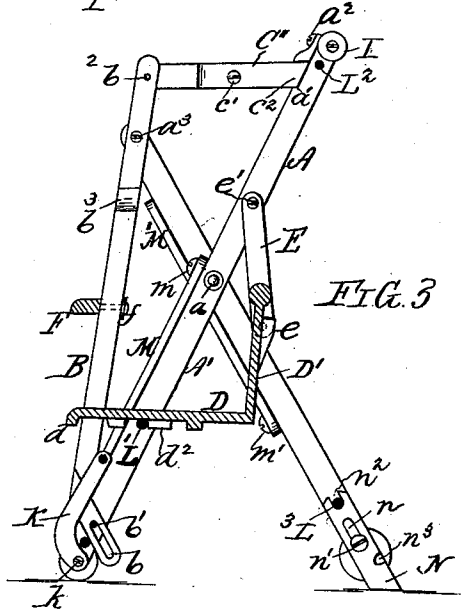


FIG. 3

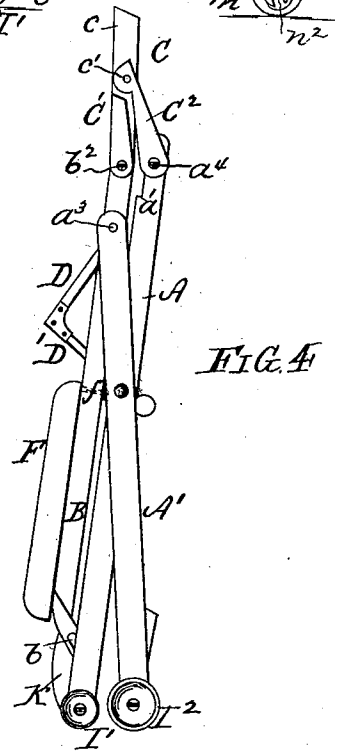


FIG. 4

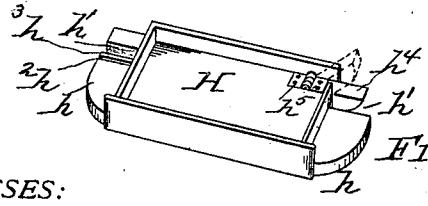


FIG. 5

WITNESSES:

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Frank Barr

INVENTOR

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N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

S. WILLIAMS.

CONVERTIBLE CHAIR.

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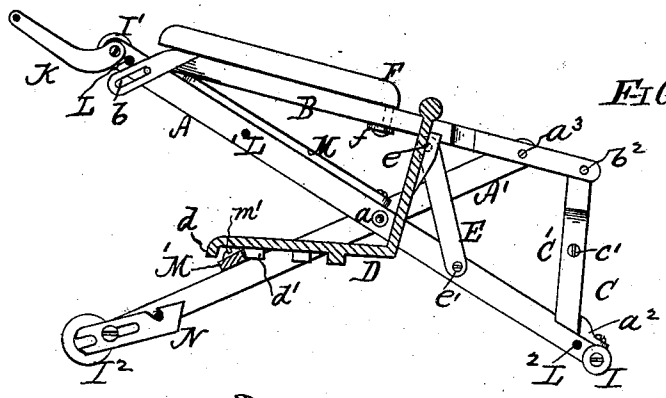


FIG. 6

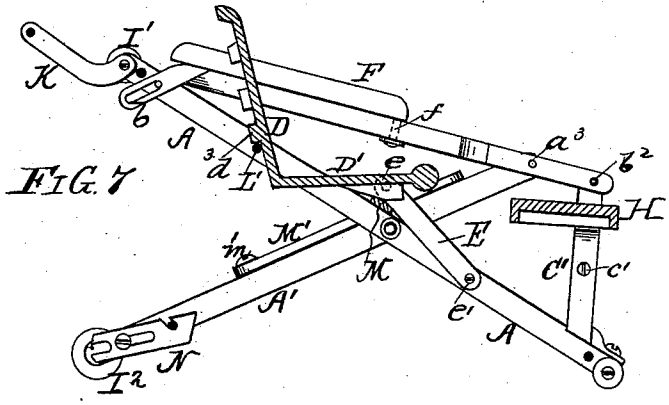


FIG. 7

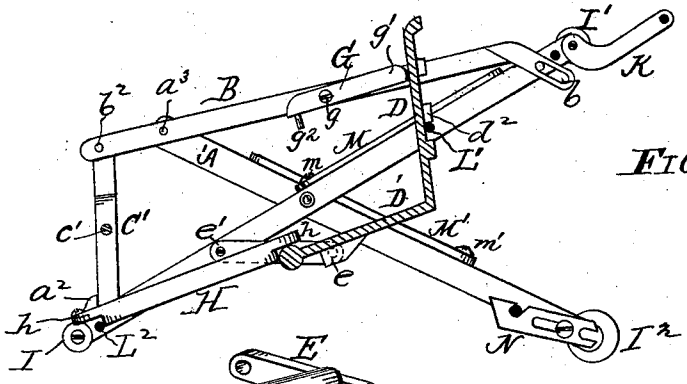


FIG. 8

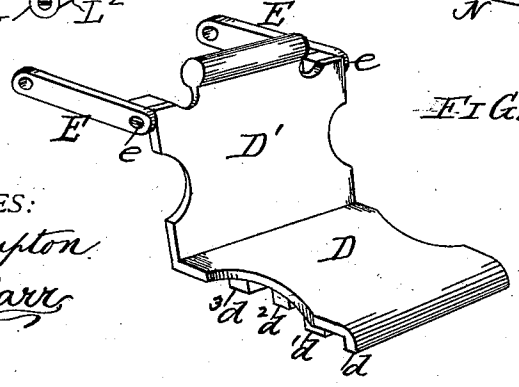


FIG. 9

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UNITED STATES PATENT OFFICE.

STEPHEN WILLIAMS, OF PHILADELPHIA, PENNSYLVANIA.

CONVERTIBLE CHAIR.

SPECIFICATION forming part of Letters Patent No. 244,014, dated July 5, 1881.

Application filed March 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN WILLIAMS, of the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Convertible High and Low Chairs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, wherein—

Figure 1 is a side elevation of my invention. Figs. 2 and 3 are longitudinal vertical sections of the same, showing, respectively, the seat adjusted to form a high and a low chair. Fig. 4 is a side elevation, showing the chair folded together. Fig. 5 is a detail perspective of the table part of the chair. Fig. 6 is a vertical section of my invention, represented as a chariot-chair. Fig. 7 is a like view when converted into an invalid-chair; Fig. 8, a similar view when converted into a rolling crib; and Fig. 9 is a detail perspective of the seat, back, and its pivotal connecting-bars.

My invention has relation to children's convertible high and low chairs, and has for its object to simplify and cheapen the construction of such chairs, and so constructing the same that they may be folded together into a compact form, and may, at will, be changed from a high to a low, chariot, stationary, or invalid chair, or to a rolling crib, or the same may be used as a walking stool or carriage.

My invention consists in the novel construction and arrangement of parts, having especial reference to the following points: first, to the provision of a chair-frame formed by the legs crossing each other on the sides of the chair, each pair of legs being pivoted together at their intersections, and provided with side or cross bars, in combination with sectionally-pivoted arms loosely jointed or secured to the upper extremities of one pair of said legs and to the side or cross bars, whereby, when desired, said parts may be folded together; second, to the provision of a detachable table provided with a retaining-spring, a hinged fastening device, and wings or ledges, whereby said table may be secured at any desired position to the chair-frame; third, to the provision of suitable braces for supporting the chair frame or legs, and holding the seat in its converted positions.

Referring to the accompanying drawings, A A′ represent the legs of the chair, there being two pairs of the same of like construction to form the chair-frame. Said legs cross each other, and are pivoted together by bolts or screws *a a*. The legs A extend up to the top of the chair, and are cut away at a', and are provided with pivoted locking-blocks a^2, for purposes hereinafter set forth. The upper ends of the legs A′ do not run up as far as those of the legs A, but are pivoted at a^3 to side bars, B, which extend downwardly, and are formed with a slot in their curved lower ends, as shown, through which pass retaining studs or bolts b', secured to the legs A, thereby loosely connecting said side bars, B, to said legs A.

C C are arms pivoted to the legs A and to the projecting ends of the side bars, B, at a^4 and b^2 respectively. Said arms are composed of sections C′ C^2, overlapping each other, as shown at *c*, and are pivoted together at *c*′. The ends c^2 of the sections C′ rest upon the ledges of the cut-away portions a' of the legs A, and are held in such position by the pivoted locking-blocks a^2, thereby serving to keep said legs A A′ extended to give form to the chair. As long as the blocks a^2 impinge against said arms the legs A A′ are locked and remain in a fixed extended position.

D is the seat, having back D′. Said seat and back are made independent of the frame of the chair, and are connected thereto by bars E E. The ends of said bars are respectively pivoted at *e* to the seat-back D′, and at *e*′ to the legs A, as shown. The seat is provided on its under side with ledges or bars $d\ d'\ d^2\ d^3$, for purposes hereinafter set forth.

F is a foot-rest, pivoted at *f* to one of the side bars B; and G is a bar, pivoted at *g* to the opposite side bar B, and is provided with a cam-shaped end, g', and a pin, g^2, as shown, the latter entering a recess or hole in the end of the foot-rest F, and serving to lock the latter in position, at the same time allowing said foot-rest to be readily and easily disconnected by simply raising and swinging it on its pivotal point *f*.

H is a detachable table, formed with wings $h\,h$. In the latter are recesses or slots $h'\,h'$, to the one side of one of which is a saw-kerf, h^2, forming a thin flexible strip of wood, h^3, which acts as a spring to retain in its adjusted place on the chair-frame that end of the table in which said spring is formed. One of the sides of the other recess h' is formed by the block, h^4, which is hinged at h^5 to the table, as shown. Said hinged block is raised to allow the table to be adjusted to a desired position on the chair-frame, and is lowered to lock the table fixedly in such position.

I I are rollers or wheels, journaled to the upper ends of the legs A A on their inner sides; and I' I^2 are other wheels, journaled to the lower ends of the legs A A', respectively.

K is a handle, pivoted at $k\,k$ to the legs A, and is used to push or draw the chair when the same is converted into a rolling chair.

L L' L^2, &c., are cross rounds or rods connecting the legs A A', as shown; and M M' are bars pivoted at $m\,m'$, respectively, to the edges of one of the legs A A'.

Operation: When the chair is not in use, or when it is desired to carry or transport it from place to place, it may be folded together, as shown in Fig. 4, and such folding is accomplished in the following manner: The foot-rest F is raised off the locking pin or stud g^2 on bar G, and it and the latter are turned on their pivotal connections until they longitudinally coincide with the respective legs to which they are attached. The locking-blocks a^2 are then rotated out of contact with arms C C, and the latter then pushed upwardly, thereby drawing the legs A A' together, the side bars, B B, following the same (by reason of the provision of the slots $b\,b$ in their lower ends) until said legs and bars reach the position indicated in said figure, when said parts are then completely folded together. The seat and back may then be adjusted to the position shown, or placed in any other desired location.

Figs. 1 and 2 show the device in the form of a high chair, the seat being in its raised position, and is supported on the ledges $b^3\,b^3$ formed on the inner sides of the side bars, B B, the table H being secured to the upper portion of said bars B B by passing the same in the recesses $h'\,h'$, and is retained in position by the spring h^3 and hinged locking-block h^4, as described.

In Fig. 3 the seat and back are shown in a lowered position, thereby forming a low chair. Said seat having been swung on its pivotally connecting bars E E until it met and rested upon the cross-rod L', the lugs d^2 on its under side abutting against said round keeps the seat from moving forward and retains the same in a fixed position.

In Figs. 1 and 2 I have shown the chair resting upon the rollers I' I^2, so that it may be rolled from place to place; but if it is desired to maintain the same in a fixed or stationary position at a table or otherwise, the legs A' A' may be extended to raise the wheels I^2 out of rolling contact with the floor or ground upon which they rest by means of the lengthening-pieces N N secured to the inner sides of the legs A' A' at their lower ends. Said extension-pieces are provided with slots n, through which pass pins or screws n', loosely securing said pieces to said legs, and have recessed extremities $n^2\,n^2$ and inclined openings $n^3\,n^3$ in one of their sides. Into the latter passes the cross-bar or round L^3 to hold said pieces in a raised position when not in use; but when employed to lengthen the legs A' A' they are first released from contact with said round L^3, then lowered and turned around, and then pushed upwardly until the recessed ends n^2 abut against said round L^3, as shown in Fig. 3, thereby increasing the length of the legs A' and raising the wheels $I^2\,I^2$ out of contact with the floor or ground to prevent any rolling of the chair from a fixed position.

Fig. 6 illustrates the chariot-chair, which is produced by turning the device bodily over until the wheels I I^2 rest upon the floor, and then moving the bar M' around on its pivot m' until it rests upon the opposite leg, A', and is there held in position by a turn-button, m^2, shown in Fig. 1. The seat with its back is then swung on its bearings until it assumes the position shown, resting upon the bar M', the lugs $d'\,d'$ and ledge d preventing any movement of the same. The child is held in said seat with its face to the attendant by the cross-round L'.

Fig. 7 represents what I term a "child's invalid-chair," wherein the cross-bar M is adjusted in position by turning it on its pivot m until it rests transversely upon the legs A A. The seat and back are then adjusted to position indicated; but the back D' now becomes the seat of the chair and rests upon the bar M, while the back D rests on the cross-round L', the ledge d^3 impinging thereagainst and keeping said parts fixedly in position. The table H is attached to the arms C C, as shown, resting upon the shoulders formed by the overlapping of the sections C' C^2. In this position the table forms a foot-rest for the child.

Fig. 8 shows the rolling crib, the bar M being returned to its normal position, and the seat is then lowered from the position shown in Fig. 7 to that shown in Fig. 8, or to a still lower plane, if desired, the lugs $d^2\,d^2$ resting on the round L', and the cam-shaped end g' of the bar G is then brought around in front of the back D, impinging against the same and keeping it from falling forward. The table H is then placed as shown, one of its wings, h, resting upon the seat D' and the other upon the cross-bar L^2 to form the bottom of the crib, upon which and the seat D' is placed a pillow for the child to lie upon. If desired, the chair, when converted into a chariot-chair, as in Fig. 6, may be also used as a walking stool or carriage by causing the child to grasp the cross-round L, the handle K meanwhile having been closed over against the legs A A.

It will thus be seen that I construct a chair capable of being converted into a high, low, stationary, chariot, and invalid chair, or rolling crib or walking-stool, at the same time being so arranged that it can be folded together for transportation from place to place or to stand aside when not in use.

What I claim as my invention is—

1. In a convertible child's chair, the combination of a frame composed of pivotally crossing or intersecting legs, side bars, and sectionally-jointed arms pivoted to said legs and bars, with a seat and back hinged to said frame by interposed links or rods, substantially as shown and described.

2. In a convertible child's chair, the combination of folding legs, arms, and side bars provided with a seat and back pivoted to said legs by means of interposed bars or links, as and for the purpose set forth.

3. In a convertible child's chair, the combination of folding legs and arms, of side bars pivoted to said legs and arms so as to fold together with said arms and legs, of a seat and back pivoted by interposed links to said legs and capable of movement on said pivotal connections, and of a detachable table, said parts being capable of adjustment to varying positions to form a high, low, invalid, or other chair and rolling crib, substantially as shown and described.

4. In a convertible child's chair, the combination of folding legs and arms with side bars pivoted to said legs and arms so as to fold therewith, a seat and back connected to said legs by pivotally-attached links or bars, a detachable table, locking devices, and sustaining-bars, whereby said parts are fixedly held in their adjusted positions, substantially as shown and described.

5. The legs A A′, crossing each other and pivoted at a, in combination with side bars, B, pivoted at a^3 to legs A′, and provided with lower slotted extremities, through which passes bolts or pins b' to secure said bars to the legs A, substantially as and for the purpose set forth.

6. The combination of pivoted legs A A′, folding pivoted arms C C, side bars, B B, and a seat and back pivoted to said legs, substantially as shown and described.

7. The combination of pivoted folding legs A A′ and arms C C, side bars, B B, seat and back D D′, table H, and foot-rest F, pivoted to one of the side bars, B, substantially as shown and described.

8. The combination of pivoted folding legs A A′, side bars, B B, sectional pivoted arms C C, and the locking-blocks a^2 a^2, secured to legs A A′, substantially as shown and described.

9. The combination of pivoted legs A A′, side bars, B B, arms C C, seat and back D D′, pivotally attached to said legs, and bars M M′, pivoted to legs A A′, as and for the purpose set forth.

10. In combination with legs A A′, side bars, B B, arms C C, and seat and back D D′, the lengthening-pieces N N, formed with slots n n, recesses n^2 n^2, and inclined openings n^3 n^3, substantially as and for the purpose set forth.

11. The table H, having recesses h' h', spring h^3, and hinged locking-block h^4, substantially as shown, and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of March, 1880.

STEPHEN WILLIAMS.

Witnesses:
CHARLES SCHERF,
ALFRED LUPTON.