(No Model.)

W. HOLDEN.

CONVERTIBLE CHAIR AND VELOCIPEDE.

No. 333,414. Patented Dec. 29, 1885.

Fig. 1.

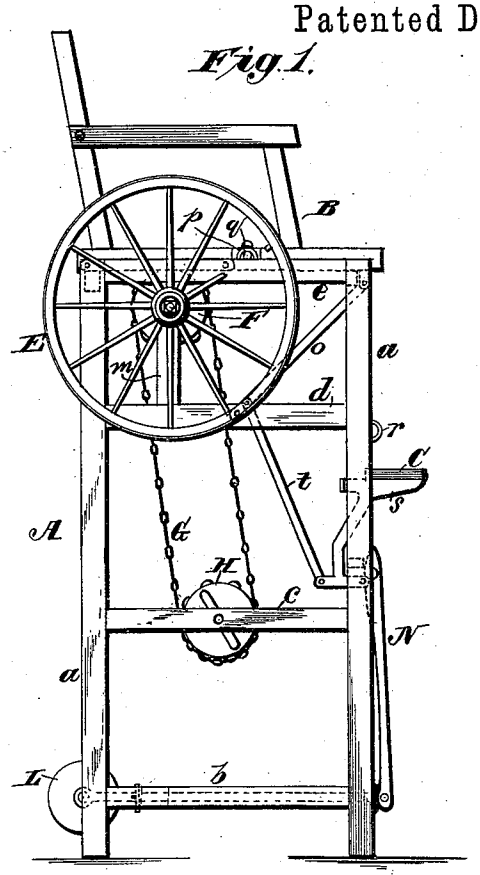


Fig. 2.

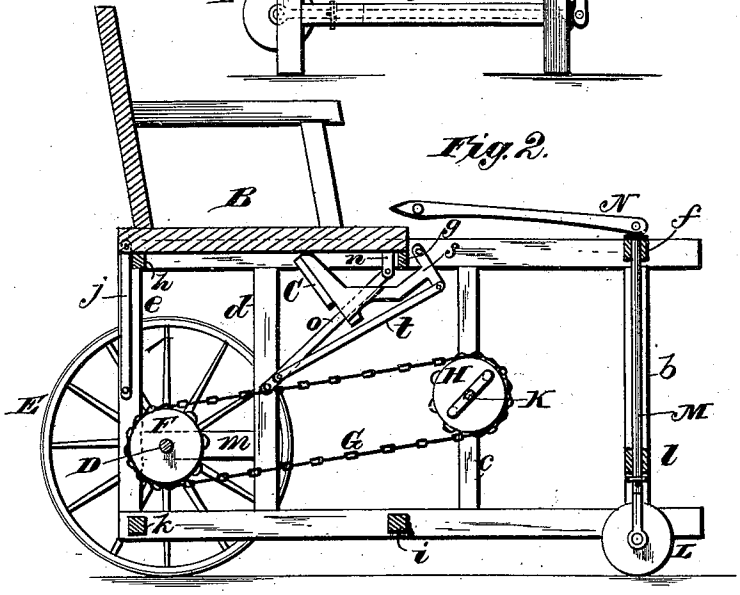
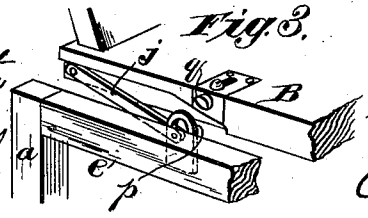


Fig. 3.



Witnesses.
Robt Ewett.
J. A. Rutherford

Inventor:
William Holden.
By James L. Norris.
Atty.

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

UNITED STATES PATENT OFFICE.

WILLIAM HOLDEN, OF BALDWINSVILLE, MASSACHUSETTS.

CONVERTIBLE CHAIR AND VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 333,414, dated December 29, 1885.

Application filed September 8, 1885. Serial No. 176,546. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HOLDEN, a citizen of the United States, residing at Baldwinsville, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in a Convertible Chair and Velocipede, of which the following is a specification.

My invention relates to a chair that is convertable as to height and adapted to be used as a velocipede when lowered.

The invention consists in the combination, with a child's convertible nursery-chair having traction and guiding wheels and propelling gearing, of a crank-shaft for actuating the propelling mechanism; and it also consists in the combination, with a chair-frame and convertible or shifting seat, of a series of links or levers pivoted to said seat and to the sides of the chair-frame for the purpose of changing the position of the seat as required.

The invention also consists in certain peculiarities in the construction and combination of parts, as hereinafter set forth, and particularly defined in the claims.

In the annexed drawings, illustrating the invention, Figure 1 is a side elevation of the chair in its raised position. Fig. 2 is a central section of the chair lowered with seat shifted, and Fig. 3 is a detail view.

The chair-frame A consists of bars *a a*, that form the legs of the chair when placed upright, said bars *a a* being connected on the sides of the frame by cross-bars *b c d e*, in front by bars *f g h*, and at the rear by cross-bars *i k*. The lower cross-bars, *b b*, are connected by a bar or round, *l*, and the bars *d e* on each side are connected by vertical struts *m*.

The seat-frame B is made in any suitable or convenient form with back and arms, as usual. To each side of this seat-frame, at its rear end, is pivoted one end of a link, *j*, the opposite end of which is pivoted to the inner side of the upper cross-bar, *e*, at or near the center. The forward end of the seat-frame B is provided with lugs *n*, to which are pivoted the upper ends of links *o o*, the lower ends of which are pivoted to the inner sides of the cross-bars *d* at or near the center.

When the chair is in an upright position, as shown in Fig. 1, with the seat-frame B resting on the upper front and rear cross-bars, *h* and *k*, the links *j j* will rest in a horizontal position substantially parallel with and between the upper cross-bars, *e*, and the sides of the seat-frame, while the links *o o* will occupy a diagonal position inclined downward from front to rear. In this position the seat-frame is secured by the engagement with a catch, *p*, attached to one of the upper cross-bars, *e*, of a spring-bolt, *q*, or other fastening attached to one side of said seat-frame. By disengaging the catch *p* and bolt *q*, and then raising the rear end of the seat-frame and tilting it forward, the chair-seat can be made to rest upon the front cross-bars, *g h*, in which position it may be secured by the engagement of the spring-bolt *q* with a catch, *r*, attached to one of the bars or legs *a*. With the seat-frame B in this position the chair-frame A will be turned backward and lowered until its legs or bars *a a* are in a horizontal position, as shown in Fig. 2. The links *j* and *o* have been thrown forward in the act of converting the chair from a high chair to a low chair; but while the links *o* rest diagonally in both positions of the seat-frame, the links *j* are now vertical and at right angles to the seat-frame, though still parallel with the cross-bars *e*, which are also vertical in this position of the chair.

To the front legs of the chair, on their inner sides and beneath the ends of the cross-bars *g*, are pivoted angle-irons *s s*, that support a foot rest or step, C, the pivoted angle-irons being actuated by the links *o o*, by means of connecting rods or bars *t t*, so as to throw the foot-rest forward when the chair is elevated with seat resting on the cross-bars *h h*, as shown in Fig. 1, and to retract said foot-rest within the chair-frame and beneath the seat, as shown in Fig. 2, when the chair is lowered with seat thrown forward. The links *j o*, angle-irons *s*, and connecting-bars *t* thus serve to produce a simultaneous movement of the seat-frame and foot-rest without interference of one with the other. The lowered chair may be allowed to rest on the sides of the rear bars, *a*, or the chair-frame can be provided with wheels or rollers by which, when lowered, it is made capable of use as a carriage or perambulator.

In order to arrange the lowered chair for use as a velocipede or perambulator, an axle, D, is journaled in the struts *m* or at any other convenient point in the chair-frame. This axle

carries traction or supporting wheels E E fixed thereto, and is also provided with a fixed sprocket-wheel, F, that is geared, by means of a chain, G, to a sprocket-wheel, H, on a cranked pedal-shaft, K, that is journaled in the side cross-bars, *c c*, or at some other suitable point in the side of the chair-frame. The front end of the velocipede or lowered chair-frame is supported by a small guiding wheel or roller, L, which is mounted in the bifurcated end of a shaft or rod, *m*, that is journaled in the cross-bars *f* and *l*, the upper end of the rod or shaft *m* being provided with a pivoted handle, N, by which the occupant of the chair or velocipede can control its movements while propelling it with feet upon the cranked pedal-shaft.

Heretofore a chair has been made convertible at pleasure into a high chair on legs or a low chair on wheels, and the leg-frame has been constructed so that it serves both as a support for the chair and for the wheels and their bearings. I do not therefore claim these features, broadly.

What I claim as my invention is—

1. In a convertible chair capable of adjustment as to height, the combination, with a chair-frame, a shifting seat-frame, and a movable foot-rest, of pivoted angle-irons for connecting said foot-rest to the front of the chair-frame, links for connecting the forward and rear ends of the seat-frame to the inner sides of the chair-frame, and bars or rods for connecting the forward links of the seat-frame to the angle-irons that support the foot-rest, whereby the seat-frame and foot-rest may be shifted or adjusted together, substantially as described.

2. In a convertible chair, the combination, with a chair-frame having cross-bars *d e* and a shifting seat-frame provided at its forward end with lugs *n*, of the links *j*, pivoted to the inner sides of the cross-bars *e* and to the sides of the seat-frame at its rear end, and the links *o*, pivoted to the lugs *u* and to the inner sides of the cross-bars *d*, substantially as described.

3. In a convertible chair, the combination, with a chair-frame and a shifting seat-frame, said parts being capable of a relative adjustment to vary the height of the chair, of the links *j*, pivoted to the inner sides of the chair-frame and to the rear end of the seat-frame, and the diagonal links *o*, having a pivotal connection with the inner sides of the chair-frame and with the forward end of the seat-frame, the said links *j* being vertical and at right angles to the seat-frame when the chair is lowered, and occupying a horizontal position between the chair-frame and seat-frame when the chair is elevated, substantially as described.

4. In a convertible child's chair and velocipede, the combination, with a leg-frame having traction-wheels journaled near one end, a guide-wheel near the other end, and an intermediate crank-shaft connected with the driving or traction wheels, of a shifting seat adapted to rest upon the end of the leg-frame, when set upright or upon the side thereof, when turned down to rest upon the wheels, substantially as described.

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

WILLIAM HOLDEN.

Witnesses:
CHAS. A. JOSLIN,
W. H. CHASE.