

949,421.

G. E. FRANCIS.
HIGH CHAIR GO-CART.
APPLICATION FILED FEB. 28, 1908.

Patented Feb. 15, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

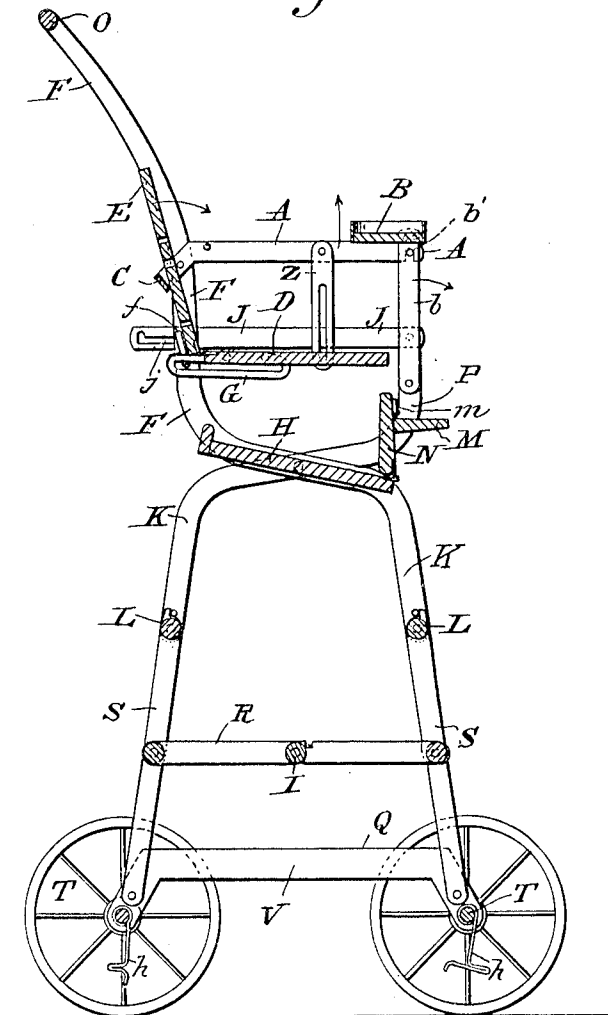


Fig. 2.

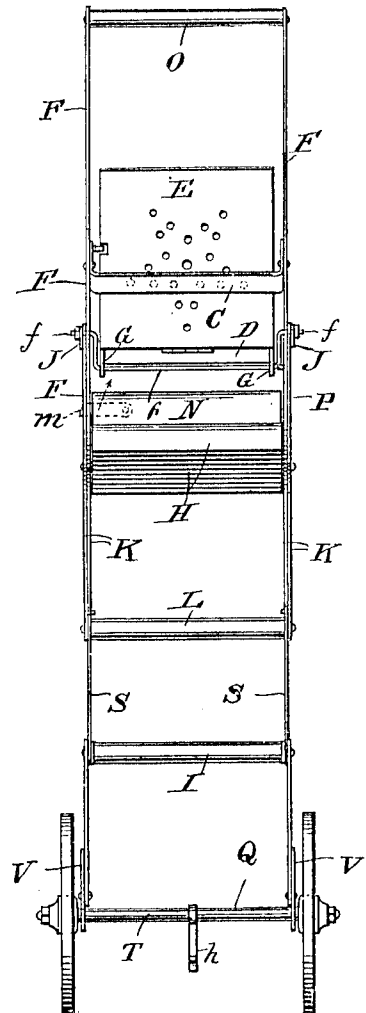
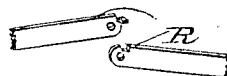


Fig. 3.



Witnesses:

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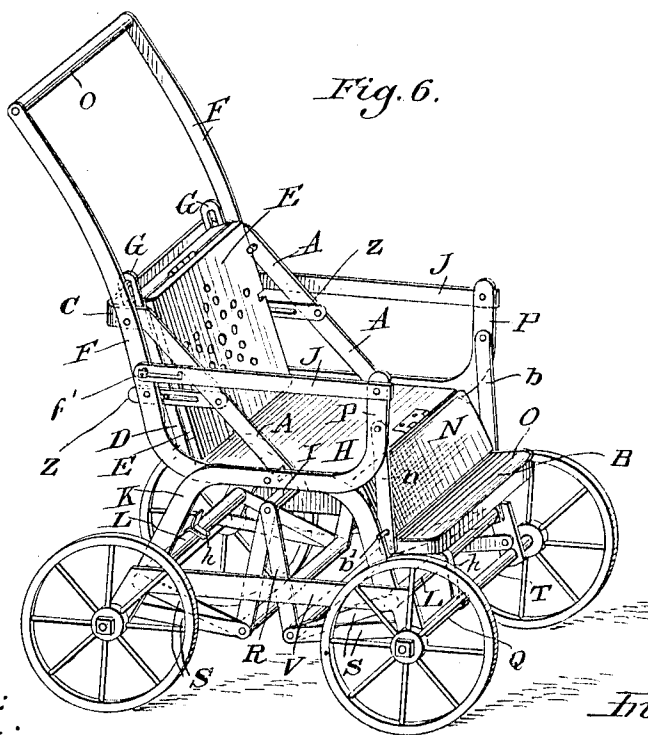
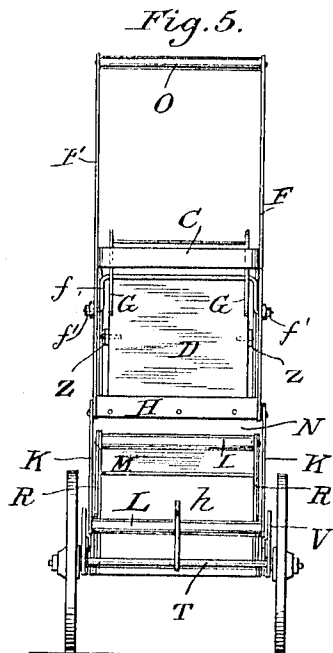
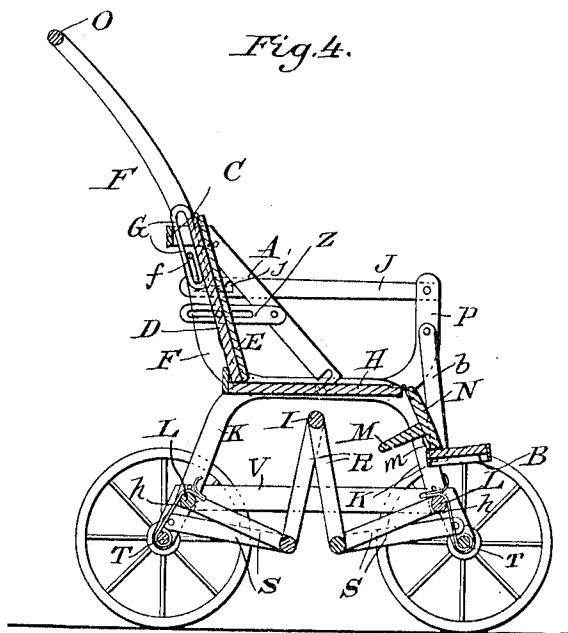
George Emory Francis

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

GEORGE EMERY FRANCIS, OF BUTTE, MONTANA.

HIGH-CHAIR GO-CART.

949,421.

Specification of Letters Patent. Patented Feb. 15, 1910.

Application filed February 28, 1908. Serial No. 418,409.

To all whom it may concern:

Be it known that I, GEORGE E. FRANCIS, citizen of the United States, residing at Butte, in the county of Silverbow and State of Montana, have invented certain new and useful Improvements in High-Chair Go-Carts, of which the following is a specification.

This invention comprehends certain new and useful improvements in nursery chairs of that type susceptible of being converted from a high chair into a go-cart and vice versa, and the object of the invention is an improved device of this character which embodies improved means for simultaneously extending or collapsing the legs to raise or lower the chair frame, and which includes a pair of hinged leaves adapted in one position to constitute a seat and back for the high chair and in another position to be folded upon each other and serve as a back for the go-cart.

The invention comprises certain other peculiar constructions and arrangements of parts that I shall hereinafter fully describe and then point out the novel features thereof in the appended claims.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a vertical section of the chair constructed in accordance with my invention and showing the same in use as a high chair; Fig. 2 is a rear view thereof; Fig. 3 is a fragmentary detail view of the sectional brace; Fig. 4 is a vertical longitudinal section of the chair converted into a go-cart; Fig. 5 is a rear view thereof; and, Fig. 6 is a perspective view.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference character.

My improved chair consists essentially of a substantially rectangular main traveling frame, Q, having front and rear axles, T, that are equipped with suitable wheels and are connected by longitudinally disposed substantially parallel bars, V. An adjustable chair frame is mounted upon this traveling frame and consists of substantially duplicate transversely spaced pairs of side bars

which are oppositely offset intermediate of their ends and have their offset portions pivotally secured together, as shown. The lower ends of these cross bars constitute front and rear legs, K, which are preferably braced by transverse rounds, L, and which are supported from the main traveling frame, Q. In the present instance these legs are provided with pairs of toggle links, S, that are pivoted at one end to the rounds, L, and at their other ends to the corresponding longitudinal bars, V, the knuckles of the opposing toggles being connected by longitudinally disposed sectional braces, R, which control the swinging movement of the toggles, so as to raise or lower the chair frame upon the main traveling frame according as the device is designed to be used as a high chair or go-cart. The sectional braces are connected together by a cross bar, I, so that the two braces are moved together and thus a coextensive movement of the toggles is afforded to preclude the possibility of some of the legs being extended more than the others. When the toggles are "broken" to lower the chair frame for use as a go-cart it will be observed that the rounds, L, are arranged in close proximity to the respective front and rear axles, T, and the latter are preferably equipped with spring catches, h, that take over the rounds, as shown, to hold the parts against accidental extension.

A go-cart seat, H, is secured between the offset portions of the innermost side bars, that is, the side bars constituting the front legs, and at their upper ends these side bars are curved upwardly and rearwardly above the plane of the seat, H, to serve as back bars, F, and are connected at their extremities by a transverse handle, O, to admit of the device being conveniently trundled from place to place. The upper ends of the other side bars serve as arm supports, P, and have pivoted thereto longitudinally disposed arms, J, the arms being formed at their rear ends with bayonet slots, j, in which are mounted outstanding studs, j¹, projecting from the back bars, F. The studs, j¹, are arranged to be seated at the opposite ends of the slots in order to regulate the angle between the corresponding side bars and effect the adjustment of the chair frame, and in the present instance are constituted by the extremities of a crank rod, f, which is journaled transversely of the back bars.

The crank rod, *f*, carries a leaf, *D*, to one end of which are secured transversely spaced longitudinally extending slotted guides, *G*, the guides being mounted on the crank portion of the rod admit of the leaf having a sliding as well as a turning movement thereabout. *E* designates a second leaf that is hinged to the said end of the leaf, *D*, and that is adapted to be folded over thereon when the device is employed as a go-cart. In this position the two leaves are arranged at an incline and interposed between the back bars, *F*, with their lower edges resting upon the rear end of the go-cart seat, *H*. These leaves are supported at their upper ends by a cross bar, *C*, that extends transversely of the back bars and that is preferably secured to the rear ends of two struts constituting auxiliary arms, *A*, that are pivoted to the respective back bars above the crank rod, *f*, and that extend obliquely forwardly with their forward extremities seated in recesses in the go-cart seat.

When the chair is employed as a high chair the auxiliary arms, *A*, are swung upwardly to assume a substantially horizontal position above the arms, *J*, and the forward extremities of the auxiliary arms are adapted to detachably take over outstanding lugs, *b*¹, projecting from the supporting bars, *b*, of a swinging shelf, *B*, the auxiliary arms being thus supported by the shelf and in turn maintaining the same in raised position, so that the shelf constitutes a tray for the high chair. Intermediate of their ends the auxiliary arms, *A*, have links, *Z*, pivoted thereto, the said links having a pin and slot connection with the leaf, *D*, and being arranged to support the latter above the go-cart seat, *H*, so that the said leaf constitutes a seat for the high chair, while the other leaf, *E*, rests against the cross bar, *C*, and serves as a back for the high chair, as will be observed by reference to Fig. 1 of the drawing.

For convenience the go-cart seat, *H*, carries at its forward end a swinging hinged section, *N*, that is constructed with a perpendicularly disposed flange, *M*, and that carries a swinging latch, *m*, which is adapted to engage one of the arm supports, *P*, in order to maintain the hinged section in up-turned position and support the flange, *M*, just below the front edge of the leaf, *D*, to serve as a foot rest for the high chair.

Before describing the practical use of my improved chair, it will be assumed that the parts are in the positions which they assume when the device is in use as a high chair. Should it then become desirable to convert the device from a high chair into a go-cart, the operation is as follows: The auxiliary arms, *A*, are swung upwardly to disengage the outstanding lugs, *b*¹, which thus releases the swinging shelf and thus allows the same

to swing forwardly and downwardly against the front legs, *K*, and below the go-cart seat, *H*, in order to completely invert the shelf and render the same susceptible of serving as a foot rest for the occupant of the go-cart. The leaf, *E*, is then swung forwardly upon the leaf, *D*, and the two are moved upwardly and rearwardly between the back bars, *F*, as is permitted by the sliding connection of the leaf, *D*, with the crank rod, *f*, and the pivoted links, *Z*, the two leaves being arranged with their hinged ends uppermost and with the slotted guides, *G*, resting against the cross bar, *C*, while the lower ends of the leaves abut against the go-cart seat, *H*, at the rear end thereof. The auxiliary arms, *A*, are swung downwardly about their pivots on the back bars and the forward extremities of the auxiliary arms are fitted into the recesses provided therefor in the seat, *H*. The sectional braces, *R*, are broken so that the weight of the chair swings the toggles, *S*, toward each other and thus collapses the legs to lower the chair frame upon the main traveling frame, *Q*, and the spring catches, *h*, being engaged with the corresponding rounds, *L*, to maintain the parts against accidental extension. The arms, *J*, are then adjusted to seat the outstanding studs, *f*¹, at the rear ends of the slots, *j*, and thereby increase the angle between the side bars of the respective arms and support the two leaves constituting the back of the go-cart in a somewhat reclining position. By releasing the latch, *m*, from the arm support, *P*, the hinged section, *N*, may be swung downwardly to rest upon the shelf, *B*, and close the space between the latter and the forward edge of the go-cart seat, *H*, it being observed that in this position the flange, *M*, is disposed rearwardly and is entirely out of the way. This completes the conversion of the chair into a go-cart and the parts now assume the positions, best seen in Fig. 6. The change of the chair from the go-cart back to a high chair may be obviously effected by reversing the above operation.

Having thus described the invention, what I claim is:

1. A convertible chair comprising a chair frame embodying legs each provided with a pair of toggle links, and sectional braces connecting the knuckles of the corresponding pairs of links.

2. A convertible chair comprising a chair frame embodying legs each provided with a pair of toggle links, sectional braces connecting the knuckles of the corresponding toggles, and an operative connection between the braces to insure of the simultaneous movement thereof.

3. A convertible chair comprising a main frame, a chair frame mounted thereon and embodying legs each provided with a pair

of toggle links, means for operating the toggles, the legs being also provided above the toggles with rounds, and a detachable connection between the rounds and the main frame.

4. A convertible chair comprising a chair frame provided with a seat, and a pair of hinged leaves arranged to constitute a seat and back for a high chair and adapted to be folded upon themselves to serve as a back for the first named seat.

5. A convertible chair comprising a chair frame provided with a seat, a leaf adapted to be supported above the said seat to constitute a high chair seat, and a second leaf forming a back for the high chair, the leaves being adapted to be folded upon each other to serve as a back for the first named seat.

6. A convertible chair comprising a chair frame embodying a seat and spaced back bars, a crank rod journaled transversely of the back bars, a leaf connected to the crank rod and adapted to be supported above the said seat to constitute a high chair seat, and a second leaf hinged to the first named leaf and constituting a back for the high chair, the leaves being adapted to be folded upon each other and positioned between the back bars to form a back for the first named seat.

7. A convertible chair comprising a chair frame embodying a seat and spaced back bars, a crank rod journaled transversely of the back bars, a leaf having a pivotal and sliding connection at one end with the crank rod and adapted to be supported above the said seat to serve as a high chair seat, and a second leaf hinged to the first named leaf and forming a back for the high chair, the two leaves being adapted to be folded and positioned between the back bars to constitute a back for the first named seat.

8. A convertible chair comprising a chair frame provided with a seat, spaced back bars, a leaf arranged in one position to constitute a back for the seat and adapted in another position to serve as a high chair seat, auxiliary arms connected to the back bars, and an operative connection between the auxiliary arms and the leaf.

9. A convertible chair comprising a chair frame embodying legs each provided with a pair of toggle links, means for holding the toggles straightened to maintain the legs extended, rounds extending between corresponding legs at points above and below the toggles, and means for detachably connecting the rounds to prevent the accidental extension of the legs.

10. A convertible chair comprising a chair frame provided with a seat and spaced back bars, a leaf adapted in one position to serve as a back for the seat and in another position to constitute a high chair seat, auxiliary arms pivotally secured at one end to the back bars, means for detachably engag-

ing the other ends of said arms, and an operative connection between the arms and the leaf.

11. A convertible chair comprising a chair frame provided with a seat, a leaf adapted in one position to serve as a back for the seat and in another position to form a high chair seat, auxiliary arms pivoted to the chair frame, an operative connection between the arms and the leaf, and a swinging shelf carried by the chair frame and arranged in lowered position to constitute a foot-rest for the first named seat, the shelf being arranged in another position for detachable engagement with the auxiliary arms to constitute a tray for the high chair.

12. A convertible chair embodying a seat, spaced back bars, a crank rod disposed transversely of the back bars, and a leaf operatively connected to the crank rod and adapted in one position to constitute a back for the seat, the leaf being arranged in another position above the said seat to serve as a high chair seat.

13. A convertible chair embodying a seat, spaced back bars, a crank rod disposed transversely of the back bars, a leaf provided with slotted guides mounted on the crank rod, the leaf being adapted in one position to serve as a back for the seat and being arranged in another position above the said seat to serve as a high chair seat.

14. A convertible chair embodying a seat, spaced back bars, arms arranged above the seat and connected at one end to the back bars, links pivoted to the arms, a leaf having a pin and slot connection with the links and adapted to be supported thereby above the said seat to serve as a high chair seat, the leaf being adapted to be swung between the back bars to serve as a back for the first named seat.

15. A convertible chair embodying a seat, spaced back bars, arms arranged above the seat and connected at one end to the back bars, a cross bar disposed transversely of the back bars, links pivoted to the arms, a leaf having a pivotal and slidable connection with the links and adapted to be supported thereby to constitute a high chair seat, and a second leaf hinged to the first named leaf and adapted to rest against the cross bar to constitute a back for the high chair, the leaves being adapted to be folded against each other and swung between the back bars to serve as a back for the first named seat.

16. A convertible chair comprising a chair frame embodying a seat and a back, a swinging shelf pivotally connected to the chair frame and adapted in lowered position to serve as a foot rest for the seat, and struts pivoted to the back and adapted to detachably engage the swinging shelf to maintain the same in raised position to serve as a

tray, the struts being supported by the shelf in such latter position to constitute arms for the chair.

17. A convertible chair comprising a seat, spaced back bars, a rod disposed transversely of the back bars, and a leaf provided with slotted guides mounted on the rod, the leaf being adapted in one position

to serve as a back for the seat and being arranged in another position above the said seat to serve as a high chair seat.

GEORGE EMERY FRANCIS.

Witnesses:

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C. V. HUTCHENS.