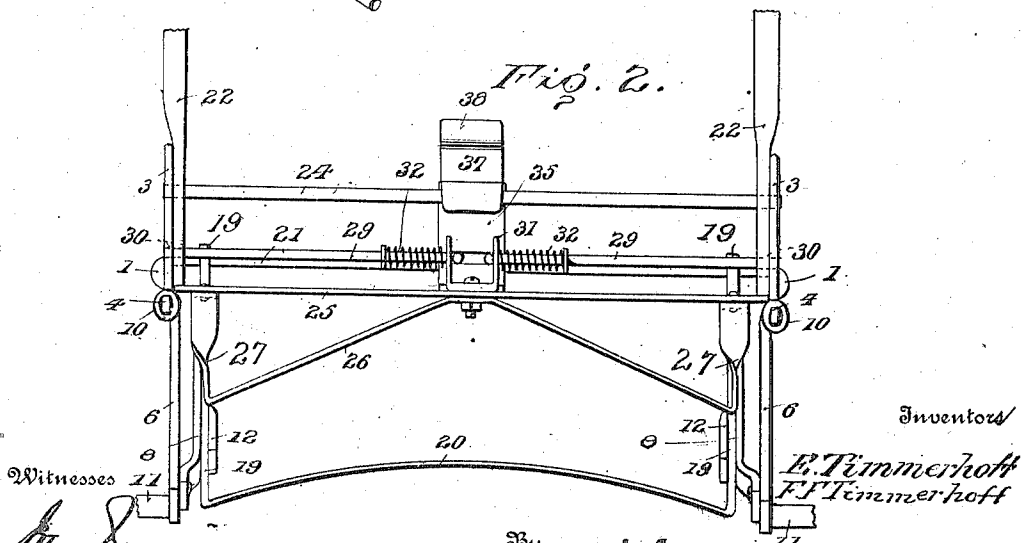


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APPLICATION FILED FEB. 26, 1908.

2 SHEETS—SHEET 1.



Witnesses 77 79

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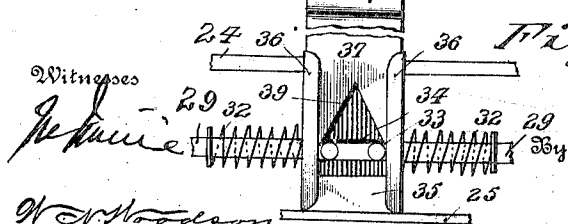
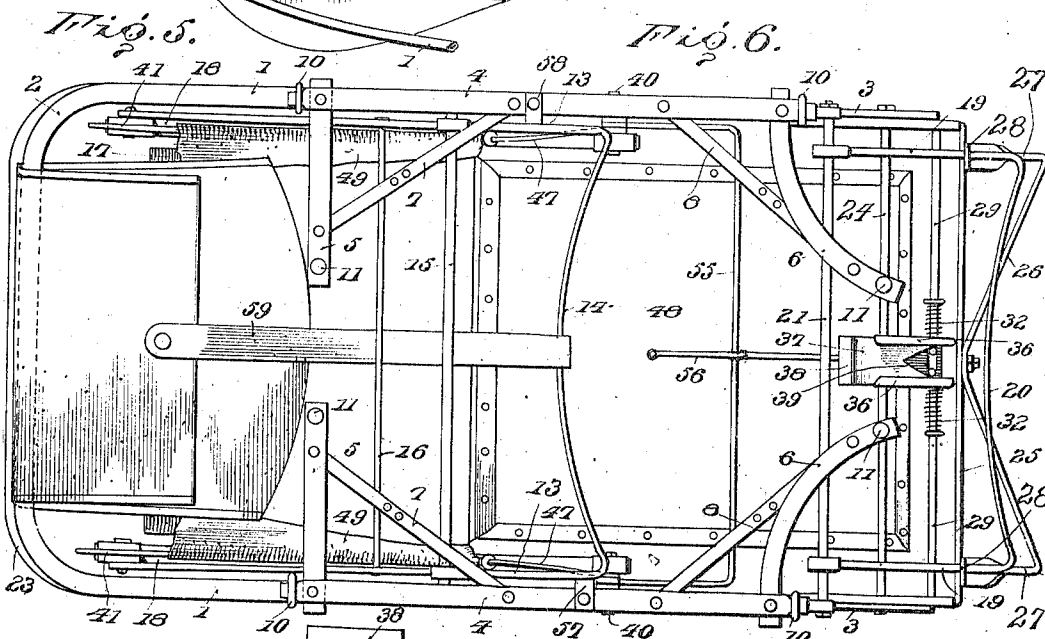
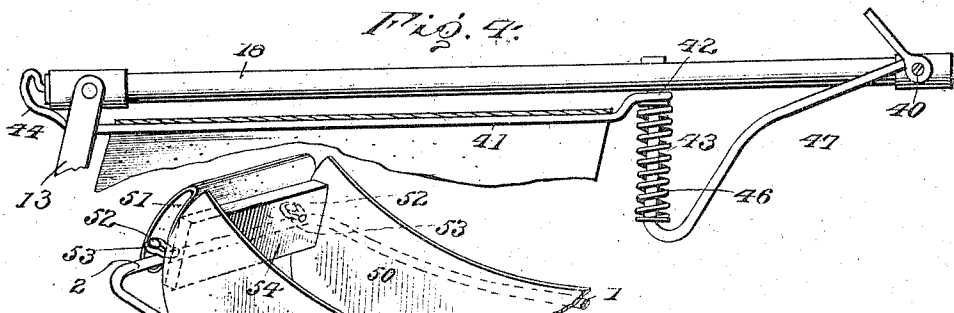
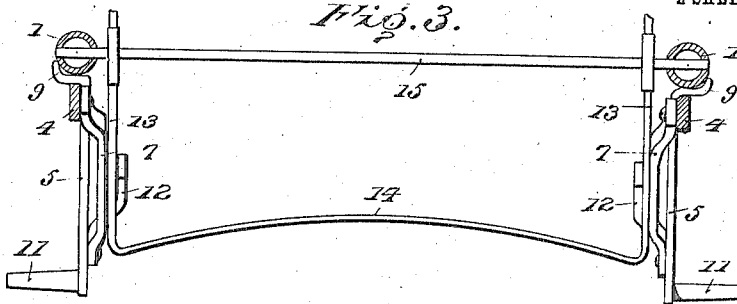
E. & F. F. TIMMERHOFF.
A. S. WIDAMAN, ADMINISTRATOR OF F. F. TIMMERHOFF, DEC'D.
FOLDING GO-CART.

947,868.

APPLICATION FILED FEB. 26, 1908.

Patented Feb. 1, 1910.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

ERNEST TIMMERHOFF AND FRANK F. TIMMERHOFF, OF WARSAW, INDIANA; ALLAN S. WIDAMAN ADMINISTRATOR OF FRED F. TIMMERHOFF, ALIAS SAID FRANK F. TIMMERHOFF, DECEASED.

FOLDING GO-CART.

947,868.

Specification of Letters Patent.

Patented Feb. 1, 1910.

Application filed February 26, 1908. Serial No. 417,929.

To all whom it may concern:

Be it known that we, ERNEST TIMMERHOFF and FRANK F. TIMMERHOFF, citizens of the United States, residing at Warsaw, in the county of Kosciusko and State of Indiana, have invented certain new and useful Improvements in Folding Go-Carts, of which the following is a specification.

The present invention relates to baby carriages of the kind generally designated as folding go-carts and which are adapted to be reduced to a compact form for convenience of handling and storing and not be in the way when set aside, as when not required for immediate service.

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.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of a go-cart embodying the invention as it will appear when ready for use, the wheels being omitted for the sake of clearness. Fig. 2 is a rear view of the running gear, the body, the upper portion of the handle bars and all forward of the rear lock frame being omitted. Fig. 3 is a transverse section of the running gear in the rear of the front lock frame, the body being omitted and portions of the side members of the front lock frame being broken away. Fig. 4 is a side view of a body bar, having the rod for supporting the body. Fig. 5 is a detail view of the foot rest, showing the same elevated. Fig. 6 is a bottom view of the go-cart as it will appear when folded, the wheels being omitted. Fig. 7 is a detail view of the latch operating means. Fig. 8 is a detail view showing more clearly the connection between the rear lock frame and the forward extensions of the brace and handle bars.

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

The main frame of the running gear is of

U-form and consists of side bars 1 and a cross bar 2. The side bars 1 curve upwardly at their front ends and the portions joining the bars 1 and 2 are made rounding. The rear ends of the side bars 1 are widened to provide extensions 3, which project upwardly and rearwardly. The bars 1 and 2 are preferably tubular and are formed of a single length of tubing bent in the form substantially as shown. The extensions 3 may form a part of the bars 1 or be welded or attached thereto in any substantial way.

The wheel frames are pivoted to the side bars 1 of the main frame so as to fold upward and inward close to said main frame. Each wheel frame consists of a longitudinal bar 4, legs 5 and 6 and braces 7 and 8. The front legs 5 are straight, whereas the rear legs 6 curve rearwardly to add to the stability of the device when the same is adjusted for the infant or child to occupy a recumbent position. The upper ends of the legs 5 and 6 project above the longitudinal bar 4 and extend laterally thereover and have their terminal portions bent upward so as to engage under the bars 1 and bear against the outer sides of said bars, as shown at 9. The longitudinal bars 4 project beyond the legs 5 and 6 and are mounted in eye bolts which constitute bearings therefor. The braces 7 and 8 have off-sets near their ends to throw the main portions of said braces inward from a plane passed through the longitudinal bar 4 and the legs 5 and 6. A spindle 11 is fitted to the lower end of each of the legs 5 and 6 and is adapted to receive a wheel in the manner well understood. A keeper 12 is provided upon each of the braces 7 and 8 and consists of a short bar fastened at one end to the brace and having its opposite end portion spaced from the braces so as to receive the member of the lock frame.

The front lock frame consists of side members 13 and a lower cross member 14. The front lock frame is mounted upon a rod 15 which is supported at its ends in the side bars 1, said rod passing through openings in the side members 13. The cross member 14 is curved upward between its ends to afford greater clearance at a middle point and to give additional strength. A rod 16 is supported at its ends in the side members 13 and forms a rest for the front end of the seat 17. The side members 13 project above

the rod 15 a distance to support the front ends of the body bars 18. When the device is unfolded and in readiness for service, the lower ends of the side members 13 engage the keeper 12 applied to the front braces 7, thereby preventing outward movement of the wheel frames, inward movement of said wheel frames being prevented by engagement of the side members 13 of the front lock frame with the inner sides of the braces 7. Outward movement of the wheel frames is also prevented by the bent ends 9 of the front and rear legs 5 and 6 in the manner herein stated.

15 The rear lock frame is similar in construction to the front lock frame and is pivotally connected with the main frame of the running gear and consists of side members 19 and a lower cross member 20. The side members 19 do not project above the plane of the side bars 1 and are mounted upon a rod 21 which is supported at its ends in the rear portions of the side bars 1. The rear lock frame braces and stays the rear ends of the wheel frames by engaging the keepers fitted to the rear braces 8 and bearing against the inner sides of said braces. The handle bars 22 are connected at their upper ends by the handle or cross bar 23 and are mounted near their lower ends upon a rod 24, which is supported at its ends in the extensions 3. A cross bar 25 connects the lower ends of the handle bars 22. A brace 26 is attached at a middle point to the lower cross bar 25 and inclines outwardly and downwardly and is bent upwardly at 27 and secured to the ends of said cross bar 25 and are thence bent forwardly, as shown at 28, said forward extensions being slotted to receive the upper ends of the side members 19, whereby the rear lock frame is caused to move simultaneously with the handle bars when folding or unfolding the same. Latch rods 29 are mounted in the lower ends of the handle bars 22 and are adapted to enter openings 30 provided in the extensions 3, thereby securing the handle bars in a given position when the go-cart is adjusted for service. A U-bracket 31 is secured to the lower cross bar 25 and to the middle portion of the brace 26, and supports the inner ends of the latch rods 29. Springs 32 mounted upon the inner end portions of the latch rods 29 normally exert a pressure to throw the latch rods outward and hold their outer ends projected into the openings 30, said springs being confined between the upright ends of the bracket 31 and stops fitted to the inner portions of the latch rods 29 a short distance from said bracket. The inner ends of the latch rods 29 are bent, as shown at 33, and pass through a transverse slot 34 formed in a plate 35 connecting the lower cross bar 25 and the rod 24, said plate having its vertical edge portions bent to pro-

vide guides 36 to receive a slide 37 by means of which the latch rods are operated. The slide 37 is provided at its upper end with a head 38 to receive the pressure of the hand or foot when it is required to effect release of the latch rods 29 from the extensions 3 of the main running gear frame. An opening 39 is formed in the lower portion of the slide 37 and is of such shape that the opposite edges upwardly converge, hence downward movement of the slide 37 moves the bent ends 33 of the latch rods inward and withdraws their outer ends from the openings 30.

The body bars 18 are pivotally connected at their front ends to the upper ends of the side members 13 and are pivotally connected at their rear ends to the handle bars 22 by bolts or like fastenings 40. Rods 41 have connection at their ends with the body bars and support the side pieces of the body. The rear end of each rod 41 is off-set and provided with an eye 42 which receives a guide rod 43 pendent from the rear portion of the body bar 18. The front portion of each rod 41 is off-set and provided with a loop 44 which forms attaching means for the strap 45, and said rod being secured to the front end of the bar 18 in any manner, preferably by being fitted into an opening formed therein. A spring 46 is mounted upon each guide rod 43 and supports the rear end of the rod 41, said spring being of sufficient tension to support the body and the weight of the infant or child. A brace 47 connects the lower end of the guide rod 43 with the bolt or fastening 40. In the event of the body bars 18 being of wood, their end portions may be reinforced by cuffs slipped thereon, said cuffs having openings to receive the fastenings connecting the supporting parts thereto.

The body consists of a seat 17, a back 48, flexible sides 49 and a boot 50, said boot consisting of an apron and flexible sides, and provided at its front end with a loop 51 to receive the cross bar 2 of the main frame. Headed studs 52 project upward from the cross bar 2 and engage with opposite edge portions of the loop 51 to prevent lateral movement of the boot and to hold the same in a given position upon the cross bar 2. The headed studs 52 also serve as means of attachment of the rings 53 connected to the foot rest 54 provided at the front end of the boot so as to hold the latter elevated when the body is adjusted to admit of the infant or child reclining. This feature is shown most clearly in Fig. 5. The seat 17, as also the back 48, is constructed of rigid material which is upholstered to provide a soft or yielding surface. The back 48 is connected to the seat 17 so as to pivot or hinge, thereby admitting of the back being raised or lowered or adjusted to any angular position. The

flexible sides 49 are provided at their upper edges with a hem or opening to receive the rods 41 from which the body is suspended. A bail 55 is adapted to support the back 48 in an adjusted position and its side members terminate in eyes through which pass the bolts or fastenings 40. A keeper 56 applied to the rear side of the back 48 receives horizontal portion of the bail 55 and limits the adjustment thereof. The bail 55 is held in an adjusted position by tightening the bolts or fastenings 40. The front end of the seat 17 is supported upon the transverse rod 16 and the back 48 rests upon the horizontal portion of the bail 55, whereas the boot 50 is suspended from the cross bar 2 either by means of the loop 51 or the rings 53, according to the adjustment of the body.

When the device is set up for use it presents the appearance substantially as shown in Fig. 1, the front and rear lock frames engaging the inner sides of the braces of the wheel frames and the keepers applied to said braces, thereby holding said wheel frames rigidly. The latch rods 29 enter the openings 30 of the extensions 3 and secure the handle bars, thereby preventing movement thereof so that the go-cart may be handled by manipulating the handle bars in the manner well understood. When it is required to fold the go-cart or reduce the same to a knocked down or compact form, the latch rods 29 are released by pressing downward upon the slide 37, the upper ends of the handle bars being thrown forward and downward with the result that the rear lock frame is withdrawn from engagement with the rear braces 8 of the wheel frames by the forward extensions 28 of the brace 26 engaging with the side members 19 of said rear lock frame. As the handle bars are moved forward and downward, the body bars 18 pivotally connected thereto are also moved forward and downward, and by reason of their connection with the side members 13 of the front lock frame, the latter is moved so as to throw the lower portion upward into the plane of the main frame of the running gear. As the front lock frame moves, it comes in contact with a trip 57 projected inward from one of the wheel frames and folds the same, and a moment later, said lock frame comes in contact with a similar trip 58 projected inward from the other wheel frame and effects a folding thereof. By having the trips 57 and 58 set, the one in advance of the other, interference of one wheel frame with the other, when folded, is avoided. The wheel frames are held folded by the front lock frame coming between and bearing against the inner sides of the trips 57 and 58. When the handle bars are thrown upward and rearward in the act of unfolding the go-cart, the front lock frame engages with the front braces 7 of the wheel

frames and throws the latter downward and outward into vertical position. A strap 59 connects the lower edge of the foot rest 54 with the cross member 14 of the front lock frame, thereby limiting the forward movement of said foot rest when pressure is exerted thereon from within the boot.

Having thus described the invention, what is claimed as new is:

1. In a baby carriage, the combination of the framework including body bars, a body, rods having said body attached thereto and having connection with the said body bars, and springs interposed between said rods and the connecting means between them and the aforesaid body bars.

2. In a baby carriage of the character specified, the combination of the framework including body bars, a body, rods having connection at one end with the body bars and having said body attached thereto, guide rods extended from the body bars and receiving the opposite ends of the said rods supporting the body, and springs mounted upon said guide rods and supporting the ends of the body supporting rods.

3. In a baby carriage of the character specified, the combination of a framework embodying body bars, rods having their front ends attached to said body bars and bent to provide strap engaging loops, connecting means between the rear ends of said rods and the rear portions of said body bars, and a body supported by means of the said rods.

4. In a baby carriage substantially of the character specified, the combination of a supporting frame embodying body bars, rods having their front ends connected to the front ends of the body bars and having eyes at their rear ends, guide rods pendent from the body bars and passed through the eyes of said rods, springs mounted upon the guide rods and supporting the rear ends of the rods having connection with the body bars, braces connecting the lower ends of the guide rods with said body bars, and a body suspended from the rods connected to the said body bars.

5. In a baby carriage, the combination of a main frame, pivoted handle bars, latch rods for securing the pivoted handle bars in an adjusted position, and operating means for said latch rods, the same consisting of a slide having an opening to receive projecting portions of the latch rods, said opening having its sides oppositely inclined to effect simultaneous movement of the latch rods.

6. In a baby carriage, the combination of a main frame, folding handle bars, oppositely extended latch rods for securing the handle bars in an adjusted position, springs for throwing the latch rods into operative engagement, and a slide having oppositely inclined portions in positive engagement with extensions of the latch rods to effect

simultaneous movement thereof to release the handle bars when it is required to fold the same.

7. In combination, a main frame, folding handle bars parallel cross ties connecting the handle bars, a plate connecting said cross ties, latch rods for securing the handle bars in the required position, and a slide mounted upon said plate and having oppositely inclined portions engaging extensions of the latch rods to effect simultaneous movement thereof.

8. In combination, a main frame, folding wheel frames, a lock frame pivoted to the side bars of the main frame and having its side members extended upwardly, handle bars pivoted to the main frame, body bars pivoted to the handle bars at their rear ends and at their front ends to the upper extensions of said lock frame side members, a body, and connecting means between the body and body bars including a spring.

9. In combination, a main frame, handle bars pivoted to the main frame, folding wheel frames, a lock frame pivoted to the main frame and adapted to hold the wheel frames unfolded and having its side members extended upwardly, body bars pivotally connected to the handle bars and to the side extensions of the lock frame, a body suspended from the body bars and comprising a back and a seat, a cross rod for supporting the seat and having its ends connected with

the extensions of the side members of the lock frame, and a bail for supporting said back in adjusted position.

10. In a baby carriage of the character specified, the combination of a main frame, a body, a boot having connection with the seat of the body and provided at its front end with a loop to receive the cross bar of the main frame, and complementary fastener elements applied to said loop and cross bar for adjustably connecting the front end of the boot with said cross bar of the main frame, whereby said boot may be elevated when it is required to adapt the carriage for placing the infant or child in a reclining position.

11. In combination, a main frame, a body, a boot having connection with the body and provided at its front end with a loop to receive the cross bar of the main frame, headed studs projected from the cross bar of the main frame, and attaching means applied to the boot and adapted to engage with the aforesaid studs to admit of adjustably connecting the front end of the boot with the aforesaid cross bar.

In testimony whereof we affix our signatures in presence of two witnesses.

ERNEST TIMMERHOFF. [L. s.]

FRANK F. TIMMERHOFF. [L. s.]

Witnesses:

SAMUEL D. ANGLIS,
JUSTIN BRUNER.