No. 751,448. PATENTED FEB. 9, 1904.

G. H. BARSCHOW.

FOLDING GO-CART.

NO MODEL. APPLICATION FILED OCT. 26, 1903.

3 SHEETS—SHEET 1.

Fig. 1.

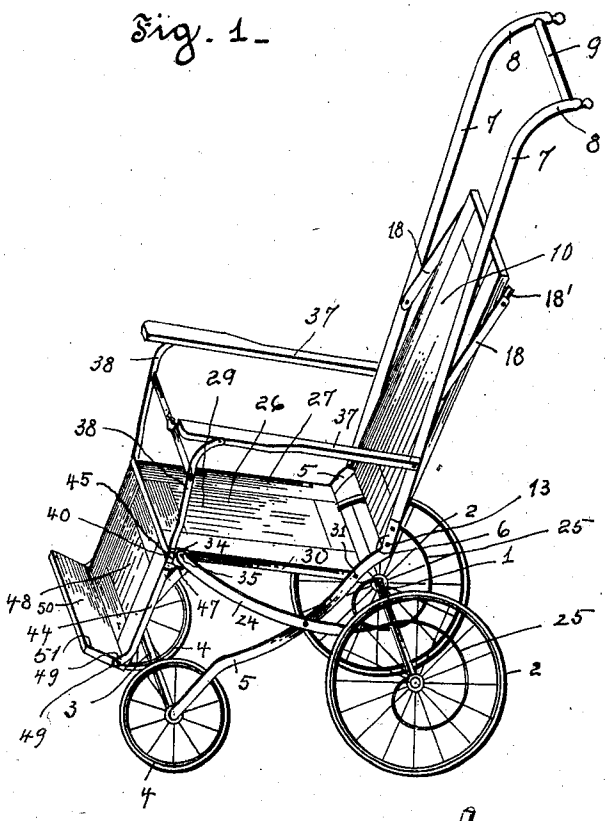


Fig. 2.

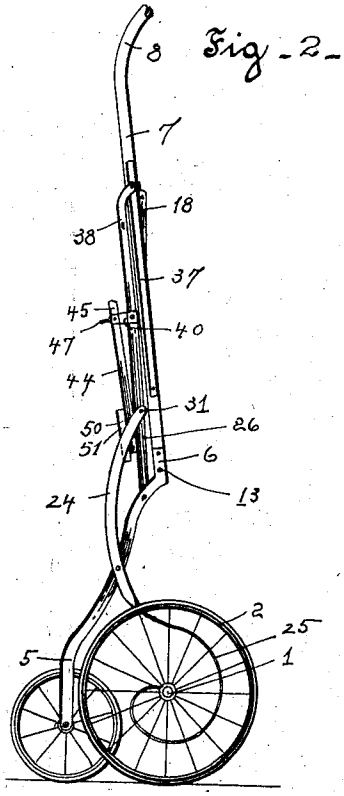


Fig. 3.

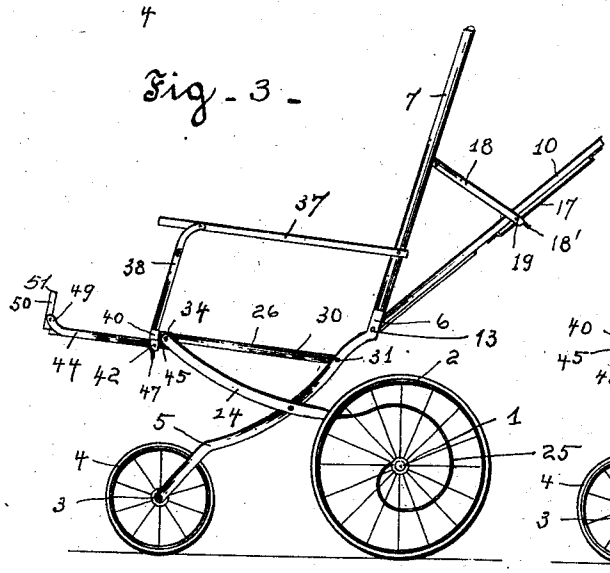
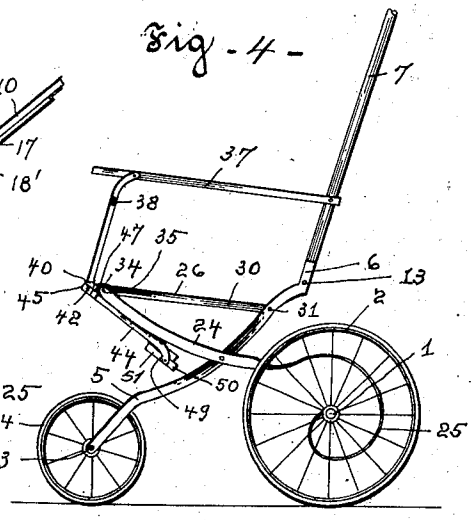


Fig. 4.



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NO MODEL. 3 SHEETS—SHEET 2.

Fig. 5.

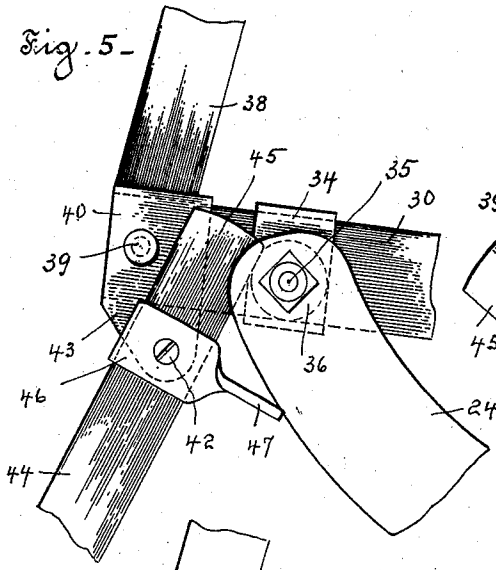


Fig. 7.

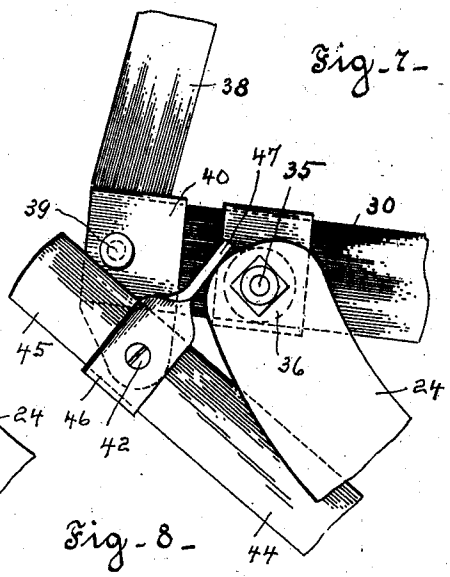
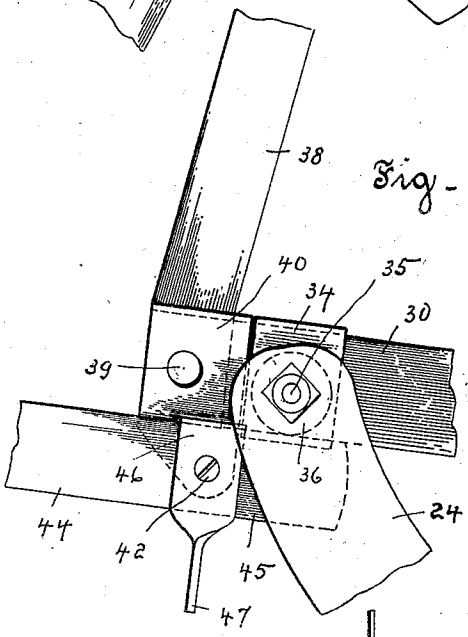


Fig. 8.

Fig. 6.



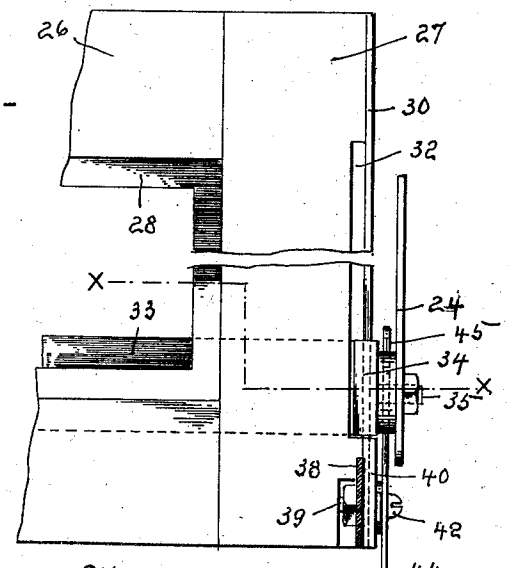


Fig. 10.

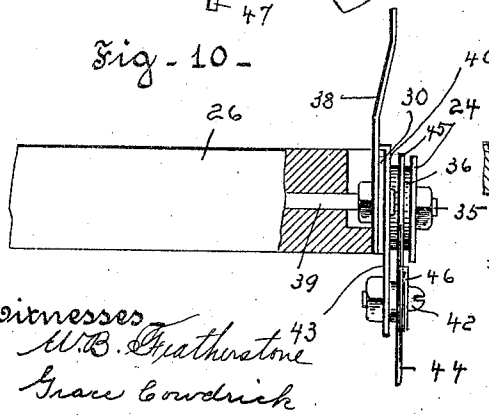
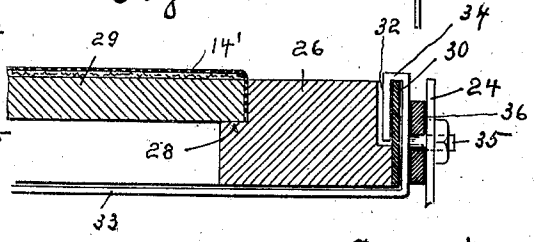


Fig. 9.



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APPLICATION FILED OCT. 26, 1903.

NO MODEL. 3 SHEETS—SHEET 3.

Fig. 11.

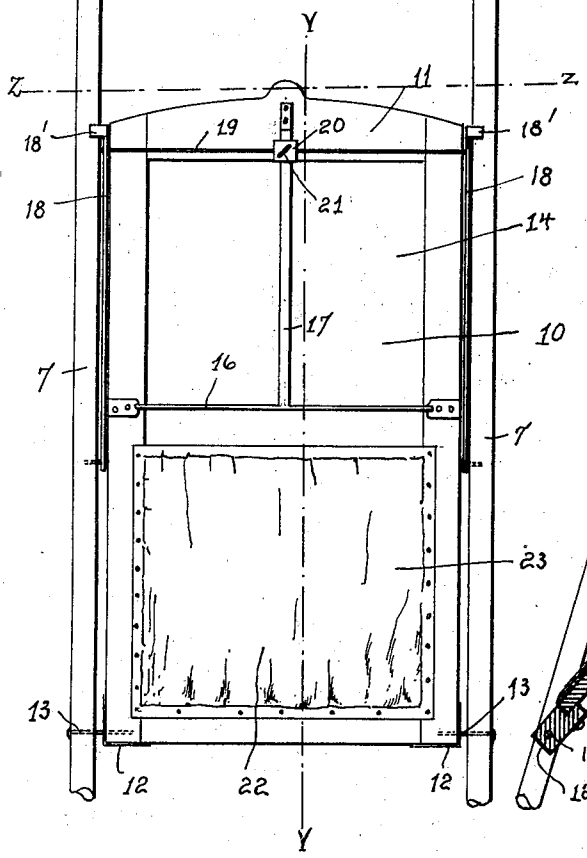


Fig. 12.

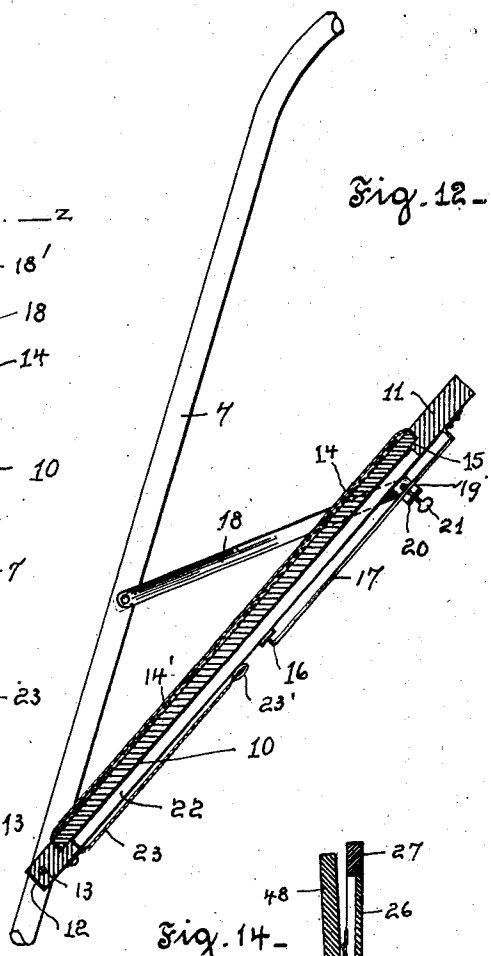


Fig. 14.

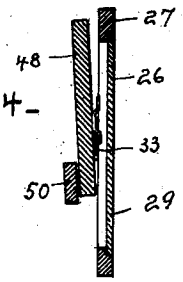
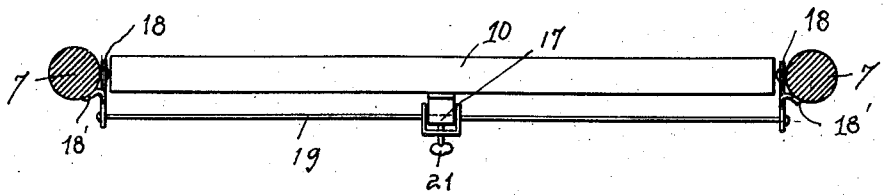


Fig. 13.



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No. 751,448. Patented February 9, 1904.

UNITED STATES PATENT OFFICE.

GEORGE H. BARSCHOW, OF TOLEDO, OHIO, ASSIGNOR TO THE AMERICAN METAL WHEEL AND TOY COMPANY, OF TOLEDO, OHIO.

FOLDING GO-CART.

SPECIFICATION forming part of Letters Patent No. 751,448, dated February 9, 1904.

Application filed October 26, 1903. Serial No. 178,552. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. BARSCHOW, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented a new and useful Improvement in Folding Go-Carts, of which the following is a specification.

My invention relates to a folding go-cart, and has for its object to provide a simple, inexpensive, and convenient vehicle of the kind that is adapted to be adjusted and locked in various positions for the comfort of the occupant and that may be folded into small compass for transportation. I accomplish these objects by constructing a folding go-cart as hereinafter described, and illustrated in the drawings, in which—

Figure 1 is an isometric view of my go-cart adjusted for a sitting position. Fig. 2 is a view in side elevation of the same in folded position for carrying or shipment. Fig. 3 is a like view of the same with the apron adjusted for a recumbent position. Fig. 4 is a like view of the same adjusted for a sitting position with the apron and footboard folded back beneath the seat. Fig. 5 is a detail view, in end elevation, of a front corner of the seat, with the parts shown in normal position, as in Fig. 1, and broken away. Fig. 6 is a similar view with the same parts in position as shown in Fig. 3. Fig. 7 is a like view with the parts arranged in position as shown in Fig. 4. Fig. 8 is a partial top plan view of the seat, showing detail construction of an end strap of the seat and a sliding end connection therewith of the movable connecting-strap of the spring reach-arms of the rear axle. Fig. 9 is a section on line X X of Fig. 8, showing an elevation of the same. Fig. 10 is an elevation of a front corner of the seat, showing the relative position of the parts and the front cross-rail partly in section. Fig. 11 is a rear elevation of the back raised between the handles. Fig. 12 is a section on line Y Y of Fig. 11, showing the back arranged for a recumbent position. Fig. 13 is a cross-section on line Z Z of Fig. 11, showing the stops on the coupling-links of the back arranged to engage the handles; and Fig. 14 is a cross-section through the apron and footboard, showing the cleat on the apron in engagement with the body portion of the sliding connecting-strap of the spring reach-arms.

In the drawings, 1 represents the rear axle, upon the ends of which are suitably journaled the rear wheels 2, and 3 represents the front axle of reduced length, upon the ends of which are journaled the front or pilot wheels 4, of reduced diameter.

To the outer end portions of the axle 3 are suitably secured the lower ends of the reach-arms 5, and to the upper end portions 6 of the arms 5 are secured the handles 7, the end portions 6 being obtusely angled to the main body portions of the arms 5. The top end portions 8 of the handles are curved rearward and connected by the handle-bar 9, and between the handles is pivoted the back 10, comprising the frame 11, having the corner-clips 12 at the lower outer corners, the gudgeons 13, by which the back is pivoted to the upper end portions 6 of the reaches 5, and the panels 14, fitting into a rabbet 15 around the inner edge of the frame.

The frame 11 is provided with a cross-strap 16, extending from side to side central across the rear face, and central and upward from strap 16 extends the strap 17, which at its upper end is secured to the upper cross-piece of the frame and at its lower end to the strap 16.

To support the back at different angles to the handles, there is pivoted to the inner sides of the handles midway of the sides of the frame 11 the strap-arms 18, the outer ends of which are secured to the ends of a connecting-rod 19, which extends across the rear of the frame 11 in front of the strap 17. When the back is in position between the handles, the arms 18 extend from their pivots upward along the handles, with the connecting-rod 19 across the rear of the top piece of the frame. When the back is swung rearward on its pivots, the connecting-rod 19 moves downward along the frame until the arms 18 are at right angles to the handles and the rod 19 engages the cross-strap 16, which prevents further movement.

To lock the back at any intermediate an-

gle, the connecting-rod 19 has mounted thereon a U-shaped clip 20, through the arms of which are provided orifices, through which the rod 19 extends transversely to the strap 17, which passes upward through the opening between the rod and the body of the clip. The clip 20 is provided with the set-screw 21, by which the strap 17 may be closely pressed on the rod 19 and whereby the rod may be locked to the strap 17 at any point. The outer ends of the arms 18 are provided at their rear edges with the side stops 18', which are adapted to engage the rear faces of the handles and prevent the back from moving forward between the handles. The back is also provided at the rear with a pocket 22 for toilet articles, the pocket being formed by attaching any suitable fabric 23 to the rear face of the lower half of the frame 11 across the recess of the panel, the fabric being suitably gathered and plaited to allow expansion of the pocket. The top edge of the fabric 23 is hemmed, and the hem is provided with an elastic cord 23' to yieldingly hold the fabric drawn tightly across the top of the pocket.

Pivoted to the outer sides of the reach-arms 5 above their centers are the spring reach-arms 24 of the rear axle, which have their rear end portions formed into involute springs 25, which latter are curved around and secured to the rear axle 1 adjacent to the wheels 2.

The seat 26 comprises a frame 27, having its inner top edges rabbeted to form a ledge 28 to receive the panel 29, flush with the top side of the frame. Along the sides of the seat-frame there are secured the straps 30, which at their rear ends project beyond the rear end of the seat and are provided with the outwardly-projecting pivots 31, by which the seat is pivoted to the arms 5 between the points where the back and the reach-arms 24 are respectively pivoted to the arms 5.

The upper side edges of the seat are cut away along the straps 30, whereby recesses 32 are formed along the body portions of the straps, to which is movably secured the sliding connecting-strap 33, which extends underneath the seat and has its end portions bent upward transverse the straps 30 and then downward over the top edges of the straps to form the slides 34.

The slides 34 are each provided with the outward-projecting pivot-pins 35, having threaded end portions upon which are first mounted the disk rollers 36, and next to the rollers the upper ends of the reach-arms 24 are pivoted on the pins and secured thereon by nuts run on the threaded portions of the pins.

To the outer sides of the handles 7 are pivoted the rear ends of the seat-arms 37, to the front ends of which are pivoted the upper ends of the arm-links 38, the lower ends of which are pivoted on the gudgeons 39, projecting from the sides of the seat near the front corners and through the front ends of the straps 30. Outside of the straps 30 there are mounted on the gudgeons 39 the clips 40, the upper ends of which are bent inward over the upper edges of the straps 30, and the clips are rigidly secured in said position by forming rivet-heads on the ends of the gudgeons 39.

The clips 40 are provided with the pivots 42, which project outwardly from their lower end portions 43, and upon the pivots 42 are mounted the apron-straps 44, having upper end portions 45, extending beyond the pivots. The outer ends of the pivots 42 also extend through the lock-clips 46, which are bighted around the front edges of the apron-straps 44 and having lock-brace portions 47 extending at right angles to the body portions of the apron-straps and twisted one-quarter turn to bring the planes of their outer ends at right angles to the planes of the apron-straps.

The apron-straps 44 are secured to the ends of the apron 48, which is of a width to leave the end portions 45 of the straps extending beyond the pivots 42 and the outer end portions 49 extending beyond the apron. The end portions 49 are curved forward, and between them extends the footboard 50, to the ends of which are secured the end straps 51, the inner ends of which are pivoted to the end portions 49 of the apron-straps, whereby the footboard is so hinged to the apron that it is adapted to be opened outward therefrom at right angles to the plane of the apron or folded upward against its outer face.

Thus constructed the normal position of my go-cart unfolded for use is shown in Fig. 1, in which the seat is slightly declined rearward, the wheel-base is extended, the handles extend upward at right angles to the plane of the seat from its rear end, the apron extends downward at a right angle from its front end, and the footboard extends forward at a right angle from the lower edge of the apron. In this position the slides 34 of the strap 33 are pushed forward along the side straps 30 until they are abutting the clips 40, in which position the clips 40 prevent any further extension of the wheel-base, and the ends of the lock-clips 46 are braced against the reach-arms 24, whereby the apron and footboard are locked against any backward movement.

If it is desired to adjust the vehicle to a reclining position, the back is lowered to the desired inclination and locked in such position by the thumb-screw 21, and to raise the apron into parallel position with the seat by placing a foot on the front axle and then raising the front of the seat slightly upward the slides 34 of the strap 33 are forced rearward, and the apron may then be moved upward in an arc until it is brought parallel with the seat, in which position the end portions 45 of the apron-straps 44 are free to move downward until they have passed the

rollers 36, in which position if the seat be then lowered to its normal position the slides 34 of the strap 33 are by such lowering again moved forward until the rollers 36 are above the end portions 45 of the apron-straps 44 and against the clips 40, as shown in Fig. 6, whereby the apron is locked and supported in a parallel plane with the seat and the wheel-base is again at its normal extension.

If it is desired when the vehicle is in the normal position shown in Fig. 1 to allow the feet of the occupant to dangle, by the same upward movement of the seat whereby the sides 34 of the strap 33 are withdrawn rearward the apron may be swung rearward between the reach-arms 24 until the lock-brace portions 47 of the clips 46 have moved in an arc past the upper ends of the reaches 24, and when in the latter position by lowering the seat the slides 34 of the strap 33 will be pushed forward again until the upper ends of the reach-arms 24 are underneath the lock-brace portions 47, whereby the apron is securely locked against forward movement and is held in a rearwardly-inclined position between the reach-arms 24, with the wheel-base extended in its normal position and with the locking parts in position as shown in Fig. 7.

To fold the vehicle in position for convenient carriage or transportation, the back is first locked between the handles and then with one foot on the front axle the seat is folded up against the back, the apron is folded down against the bottom of the seat and the footboard up against the front of the apron, by which operation the front or pilot wheels are brought partly between the rear wheels and the reach-arms 5 and 24 into a closed ice-tongs-like position nearly in line with the handles, with the seat-arms extended upward along the handles, in which position the vehicle occupies but little room and is conveniently carried by the handle-bar, and may be taken on board street-cars or other similar conveyances, or numbers of them may be closely packed in crates for shipment.

By fitting the back and seat frames with the panels 14 and covering the front face of the panels with a suitable fabric 14′ and secured thereto around the sides and ends of the panels I have provided a simple and durable construction and inexpensive means of varying the ornamentation.

The recess formed by the panel of the back also serves to increase the capacity of the pocket 22, which provides a convenient receptacle for necessary toilet articles in a position where it does not interfere with any of the movements or arrangements of the parts.

What I claim as my invention and to be new in the construction of a go-cart is—

1. In a folding go-cart, the combination with folding reaches pivoted together in crossed pairs and secured to the front and rear axles, of a seat pivoted to the reaches of the front axle, straps secured to the sides of the seat, slides engaging the side straps of the seat and adapted to slide back and forth thereon, pivot-pins projecting outwardly from the slides, and having pivoted thereon the upper ends of the reaches of the rear axle, disk rollers on the pivots between the slides and the reaches, clips secured to the front ends of the side straps and having end portions projecting downward, pivots projecting outward from the lower end portions of the clips, an apron for the seat, straps secured to the ends of the apron and pivoted by their upper ends on the pins of the clips and having lock portions extending beyond the pivots, adapted to lock the apron in parallel elevated position, clips secured to the apron-straps having lock portions extending at right angles from the rear of the apron-straps, and adapted to engage the upper end portions of the reaches of the rear axle, substantially as and for the purpose set forth.

2. In a folding go-cart, the combination with the handles, of a back-frame between the handles and pivoted at its lower end thereto, the body portion of the back-frame being adapted to swing into and out of position between the handles, a strap secured lengthwise to the rear face of the frame parallel with the sides of the frame, a movable supporting-stirrup for the back comprising arms rigidly connected at their outer ends to a rod extending across the rear face of the back-frame between the strap and the back, the stirrup thus formed being pivoted by the inner ends of the arms to the handles above the pivots of the back, and means to compress the strap against the rod at any point of crossing of the rod and the strap, substantially as and for the purpose set forth.

3. In a folding go-cart, the combination with the handles, of a back-frame between the handles and pivoted at its lower end thereto, the body portion of the back-frame being adapted to swing into and out of position between the handles, a strap secured lengthwise to the rear face of the frame parallel with the sides of the frame, a movable supporting-stirrup for the back comprising arms rigidly connected at their outer ends to a rod extending across the rear face of the back-frame between the strap and the back, the stirrup thus formed being pivoted by the inner ends of the arms to the handles above the pivots of the back, means to compress the strap against the rod at any point of crossing of the rod and the strap, and ears at the outer ends of the stirrup-arms adapted to engage the handles and limit the forward movement of the back-frame, substantially as and for the purpose set forth.

4. In a go-cart, the combination with a back-frame, of a pocket formed on the rear face thereof by securing to the sides and lower

end of the frame the sides and lower end of a piece of flexible fabric, the upper end of the fabric being hemmed and gathered and provided with an elastic cord.

5. In a go-cart, the combination of a rabbeted back-frame, a panel adapted to fit into the rabbet of the frame, and form a recess in the rear face of the back, and flexible fabric secured to the lower side and end portions of the frame across the recess and forming with the frame and panel a recessed pocket, for the purpose set forth.

In witness whereof I hereunto set my hand this 26th day of September, 1903.

GEORGE H. BARSCHOW.

Witnesses:

ROY R. STUART,

GRACE COWDRICK.