Nov. 12, 1940. W. R. SAYLES 2,221,111

FOLDING GOCART

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Fig. 1

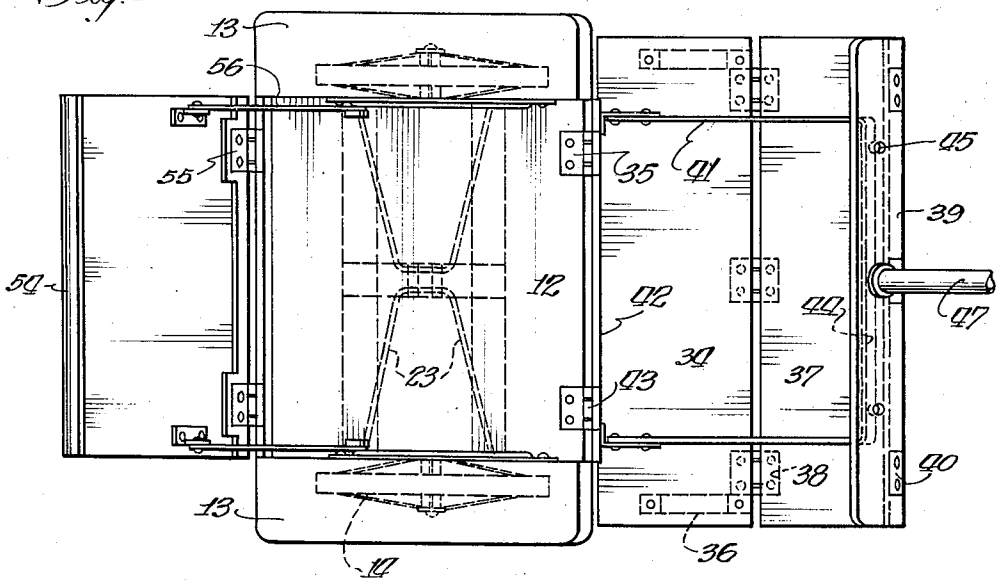
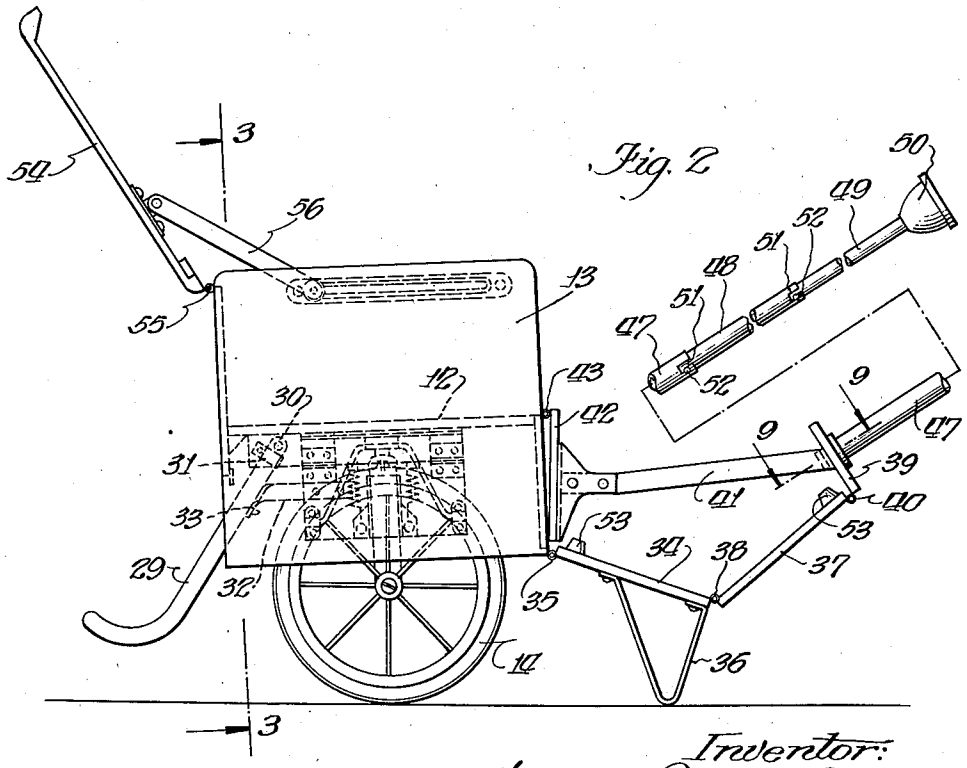


Fig. 2



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Fig. 3

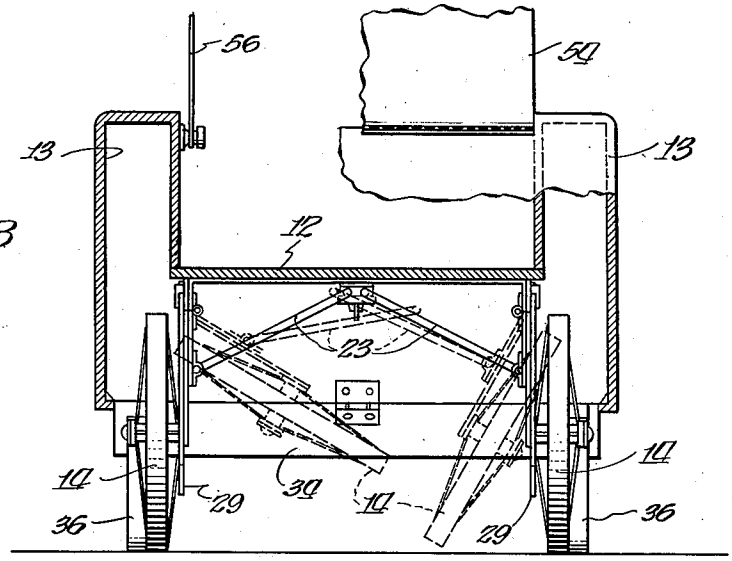


Fig. 6

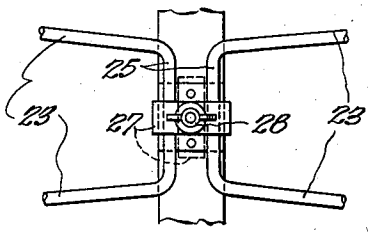


Fig. 5

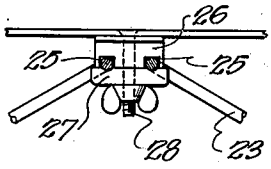
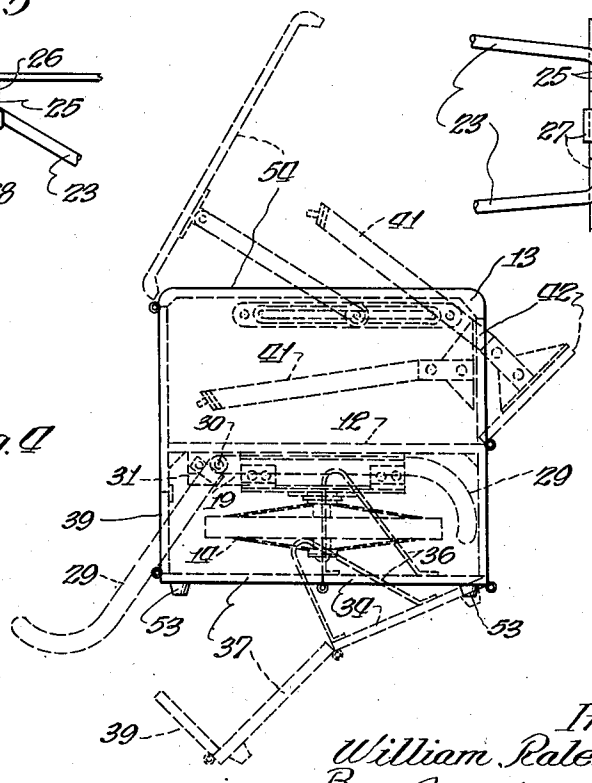


Fig. 4



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Fig. 7

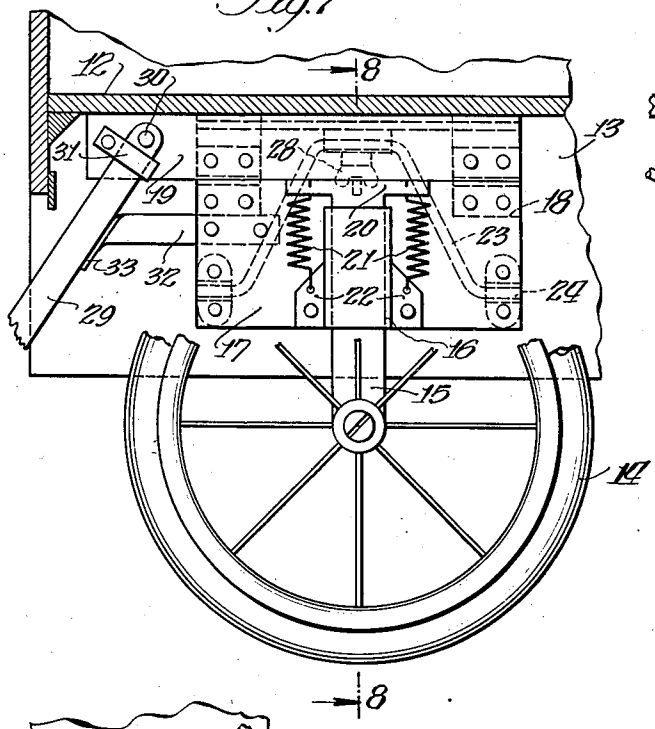
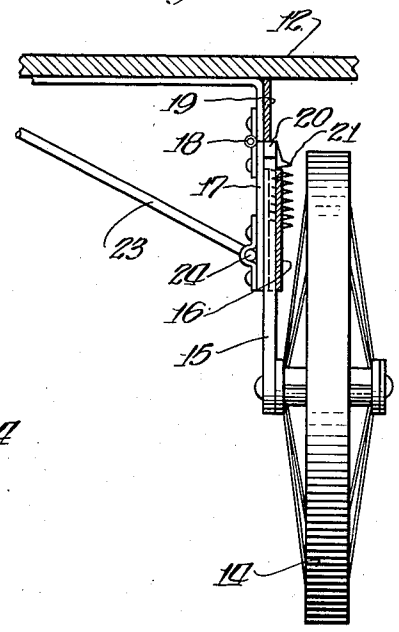


Fig. 8



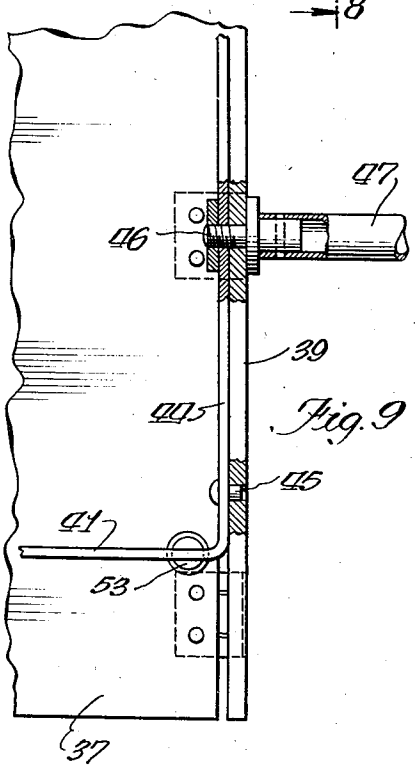
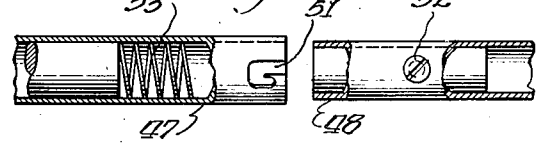


Fig. 9

Fig. 10



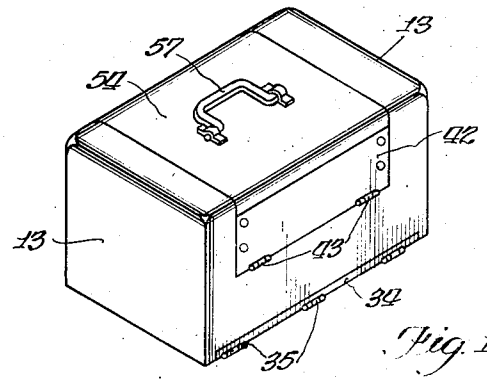


Fig. 11

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UNITED STATES PATENT OFFICE

2,221,111

FOLDING GOCART

William Raleigh Sayles, Green Bay, Wis.

Application January 13, 1940, Serial No. 313,666

4 Claims. (Cl. 280—37)

The invention relates to improvements in folding gocarts especially adapted for use in transporting children and has for its primary object the provision of an improved construction of the character indicated which is capable of economical production and highly efficient in use.

Other objects will appear hereinafter.

The invention consists of the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which

Fig. 1 is a partial top plan view of a gocart embodying the invention and shown in extended position ready for use;

Fig. 2 a side view of the same;

Fig. 3 a transverse section taken substantially on line 3—3 of Fig. 2;

Fig. 4 a side view of the gocart shown in full lines as folded but having intermediate positions of some of the parts indicated in dotted lines;

Fig. 5 a detailed view of a clamping member employed in the construction;

Fig. 6 a bottom plan view corresponding with Fig. 5;

Fig. 7 an enlarged detailed section illustrating the mounting of one of two wheels employed in the construction;

Fig. 8 a section taken substantially on line 8—8 of Fig. 7;

Fig. 9 an enlarged partial section taken substantially on line 9—9 of Fig. 2;

Fig. 10 an enlarged detailed view of a joint employed between sections of a tongue or handle member; and

Fig. 11 a perspective view of the gocart shown in folded condition.

The embodiment of the invention illustrated in the drawings comprises a substantially square body provided with a central seat 12 and hollow side members 13 extending above the seat member 12 sufficiently to constitute arm rests for said seat and below said seat sufficiently to constitute wells for the reception of the upper portions of two traction wheels 14, as best shown in Fig. 3.

As best shown in Figs. 7 and 8, each of the wheels 14 is mounted on the lower end of a vertical supporting bar 15 which is vertically slidable in a guide 16 on a supporting plate 17 hinged at 18 to a longitudinal supporting bar 19 secured as shown to the bottom of the seat member 12 at each side thereof. Each supporting bar 15 is provided at its top with a cross head 20 connected with the upper ends of tension springs 21 which in turn are anchored at their lower ends to brackets 22 secured to the bottom of the corresponding supporting plate 17 and whereby downward yielding of the supporting plate 17 relatively to the wheel 14 is permitted.

A substantially U-shaped locking bracket 23 has the ends of its limbs pivoted at 24 to the lower inner face of each of the supporting plates 17 and is foldable thence inwardly and upwardly to bring its top bar 25 into cooperative relationship with the locking grooves in a clamping bar 26 secured centrally to the underside of the seat 12, as best shown in Figs. 3, 5 and 6. A swiveled clamping bar 27, controlled by a clamping bolt 28, is arranged as indicated to cooperate with the clamping block 26 to lock the braces 23 in the positions indicated in Figs. 3, 5 and 6 to hold the wheels in upright and operative positions, as indicated. Obviously, when desired, the clamping bar 27 may be released and swung to the dotted line position indicated in Fig. 6, whereupon the bars 25 of the braces 23 will be released, permitting upward and inward folding of the wheels 14, as indicated by the dotted lines in Figs. 3 and 4.

Rear braces 29 are pivoted at 30 to the rear ends of the bars 19 and are arranged to swing rearwardly under stop brackets 31 as best indicated in Figs. 2 and 7. Locking bars 32 are secured as shown to the plates 17 and are provided with inwardly turned locking ends 33 which swing into the paths of the braces 29 when the wheels are in upright positions so as to lock said braces in their operative positions, as indicated in Fig. 2, and whereby rearward tilting or upsetting of the gocart would be prevented.

As best shown in Figs. 1 and 2, a footboard or panel 34 is hinged at 35 to the lower forward edge of the gocart body and carries two supporting legs or braces 36 arranged to contact with the ground to prevent forward tilting or upsetting of the gocart body. A dashboard 37 is hinged at 38 to the forward edge of the footboard 34 and is provided at its free edge with a securing strip or bar 39 hinged thereto at 40. The securing bar 39 is held in the position indicated in Figs. 1 and 2 by means of a substantially U-shaped brace 41 pivoted at its rear to a front panel 42 hinged at 43 to the central forward portion of the gocart body. The front bar 44 of the brace 41 is provided with forwardly extending lugs 45 fitting into corresponding sockets or openings in the securing bar 39, as best shown in Figs. 1 and 9. A threaded stud 46 is arranged as shown to pass through the bars 39 and 44 to further lock the

same together, said stud 46 constituting the inner lower end of a section 47 of a foldable handle member consisting of additional similar sections 48 and 49, the section 49 being equipped with a handle piece 50 at its extreme end. Sections 47, 48 and 49 are detachably connected together by means of bayonet slots 51, studs 52 and cushion springs 53, best shown in Fig. 10, and whereby said handle member may be readily detached and separated into its three parts for enclosure in the body member on top of the seat member when it is desired to fold the gocart into its compact form, as illustrated in Fig. 11.

After the handle member has been thus detached, the brace 41 and the panel 42 are also released so that they may be folded upwardly and rearwardly to bring the brace 41 within the body member over the seat 12 and the panel 42 into closing position to close the upper front portion of the body, as indicated in Fig. 11. Likewise, the members 34, 37 and 39 may be folded downwardly and rearwardly around the bottom and rear lower side of the body member to enclose the braces 36 and 39 and the wheels 14 therein, suitable means, not shown, being provided for securing the members 34, 37 and 39 in closed positions. Suitable feet 53 are provided on the members 34 and 37 to constitute rests or lugs for the gocart body when thus folded.

As best shown in Figs. 1 and 2, a back rest 54 is hinged at 55 to the upper rear portion of the body member and equipped with braces 56, as indicated, so that the same may be extended, as shown, to constitute a back rest for the seat 12 or folded into the closed position indicated in Fig. 11 to constitute the top of the body of the gocart when folded into compact form. A suitable handle 57 may also be provided on the back rest 54 for convenience in carrying the folded body, suitable means, not shown, being provided for securing the back rest 54 in closed position.

By this arrangement a simple and effective gocart for transporting children may be provided which is capable of economical production and which may be readily folded into compact form when not in use. The specific form and arrangement of parts disclosed is a simple and effective construction for the purpose.

While I have illustrated and described the preferred form of construction for carrying the invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I therefore do not wish to be limited to the precise details disclosed but desire to avail myself of such variations and modifications as fall within the scope of the appended claims.

I claim:

1. A device of the class described comprising a seat; hollow sides for said seat extending above it to constitute arm rests and below it to constitute wheel wells; foldable wheels mounted under said seat and arranged to be folded inwardly and upwardly toward said seat or outwardly into vertical positions with their upper portions extending into said wells; means for locking said wheels in their outward positions; and a foldable foot support hingedly connected with the forward portion of said seat and foldable around said wheels when folded and arranged to close the bottoms of said wheel wells.

2. The construction specified in claim 1 in which the wheel locking means consists of substantially U-shaped braces having the ends of their limbs pivoted to the wheel mountings; a common clamp member mounted under the seat and arranged to engage the top bars of said braces, there being grooves in said clamping member receiving said top bars; and a clamping bar swiveled to said common clamp member by a central clamping bolt and arranged to lock both of said brace top bars to said common clamping member.

3. A device of the class described comprising a seat; foldable wheels mounted under said seat and arranged to be folded inwardly and upwardly towards said seat or outwardly into vertical positions; substantially U-shaped braces having the ends of their limbs pivoted to the wheel mountings; a common clamp member mounted under the seat and arranged to engage the top bars of said braces, there being grooves in said clamping member receiving said top bars; and a clamping bar swiveled to said common clamp member by a central clamping bolt and arranged to lock both of said brace top bars to said common clamping member.

4. A device of the class described comprising a seat; two foldable wheels mounted under said seat and arranged to be folded inwardly and upwardly towards said seat or outwardly into vertical positions; foldable rear braces pivotally secured to the under side of said seat and extensible to contact the ground and prevent rearward tipping of the seat; and locks on said wheel mountings arranged to engage and lock said rear braces in operative positions when said wheels are in their vertical positions.

WILLIAM RALEIGH SAYLES.