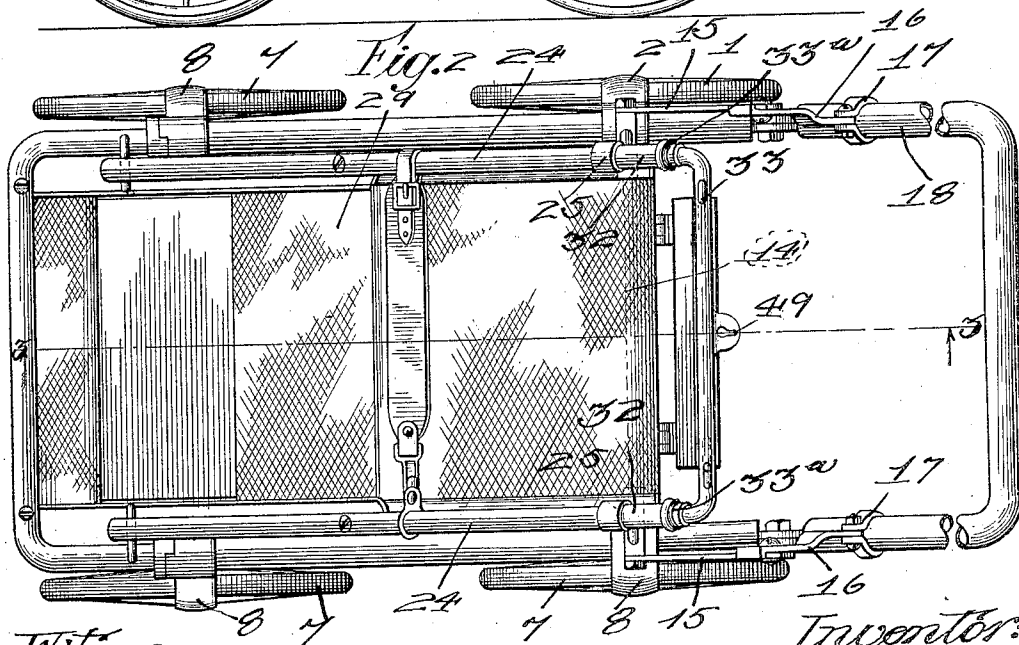
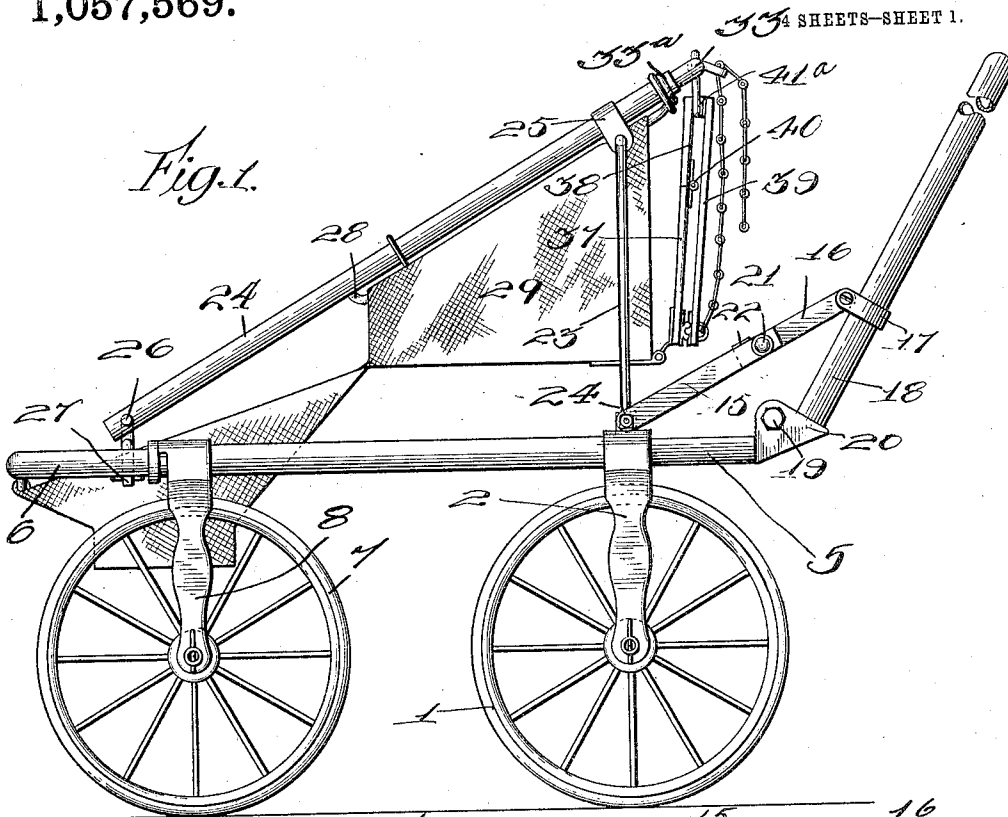


A. E. MCGILL.
FOLDING PERAMBULATOR.
APPLICATION FILED DEC. 5, 1904.

Patented Apr. 1, 1913.

1,057,569.

354 SHEETS-SHEET 1.



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4 SHEETS—SHEET 2.

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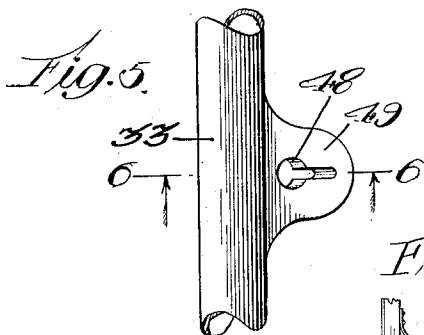
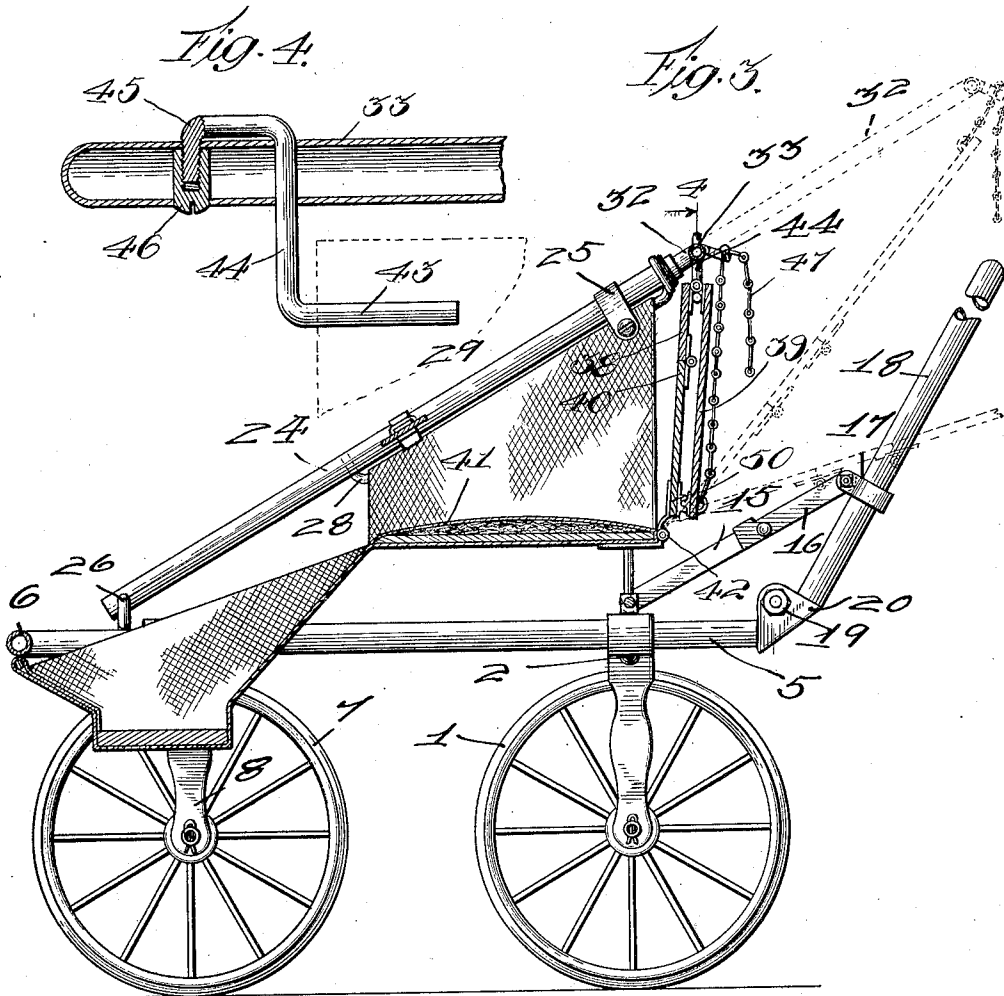


Fig. 6.

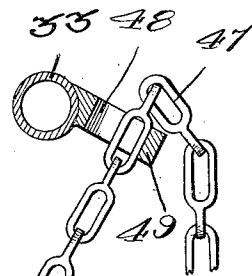
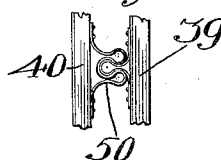


Fig. 7.



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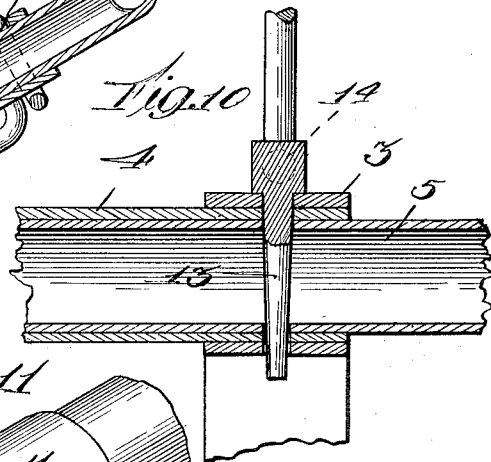
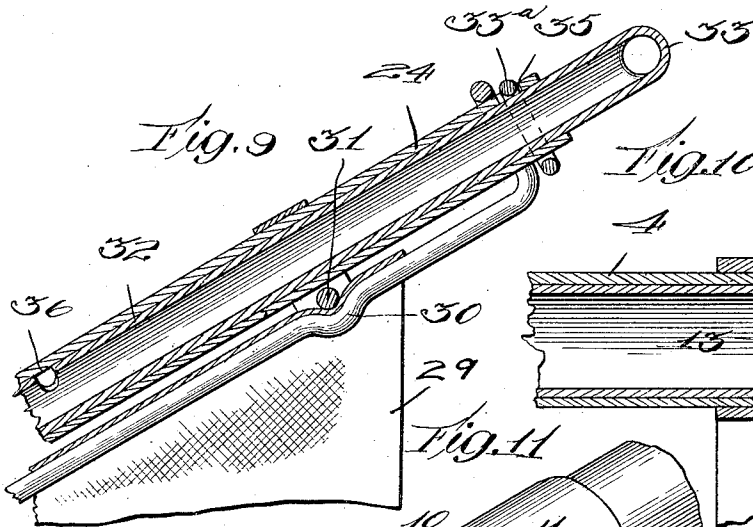
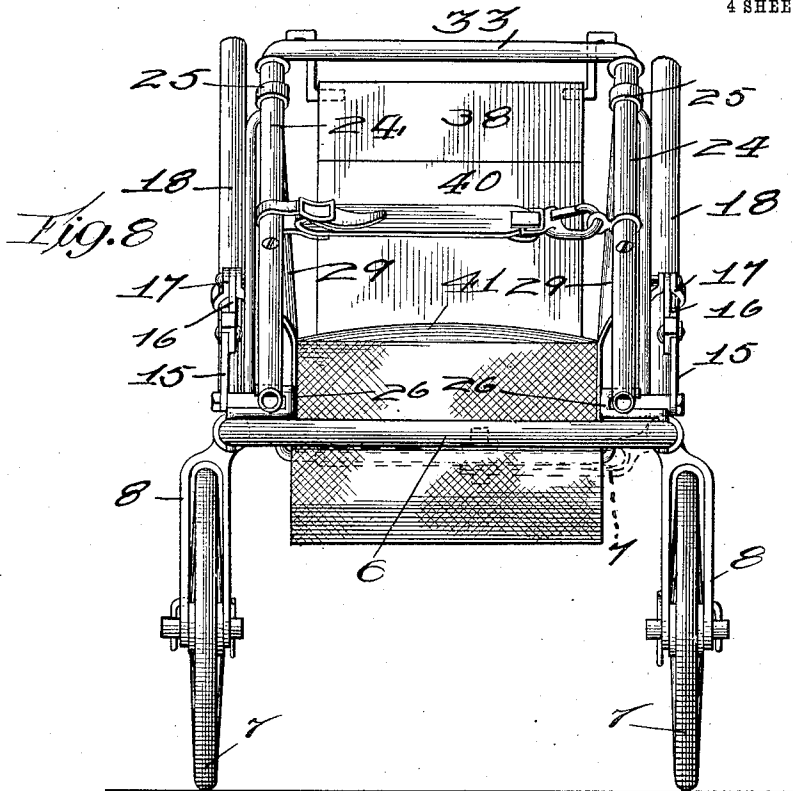
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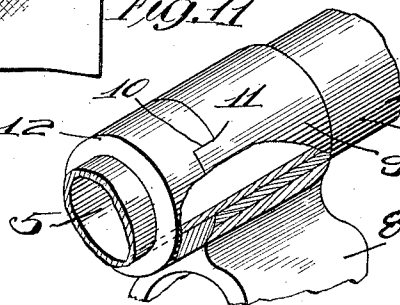
1,057,569.

Patented Apr. 1, 1913.

4 SHEETS—SHEET 3.



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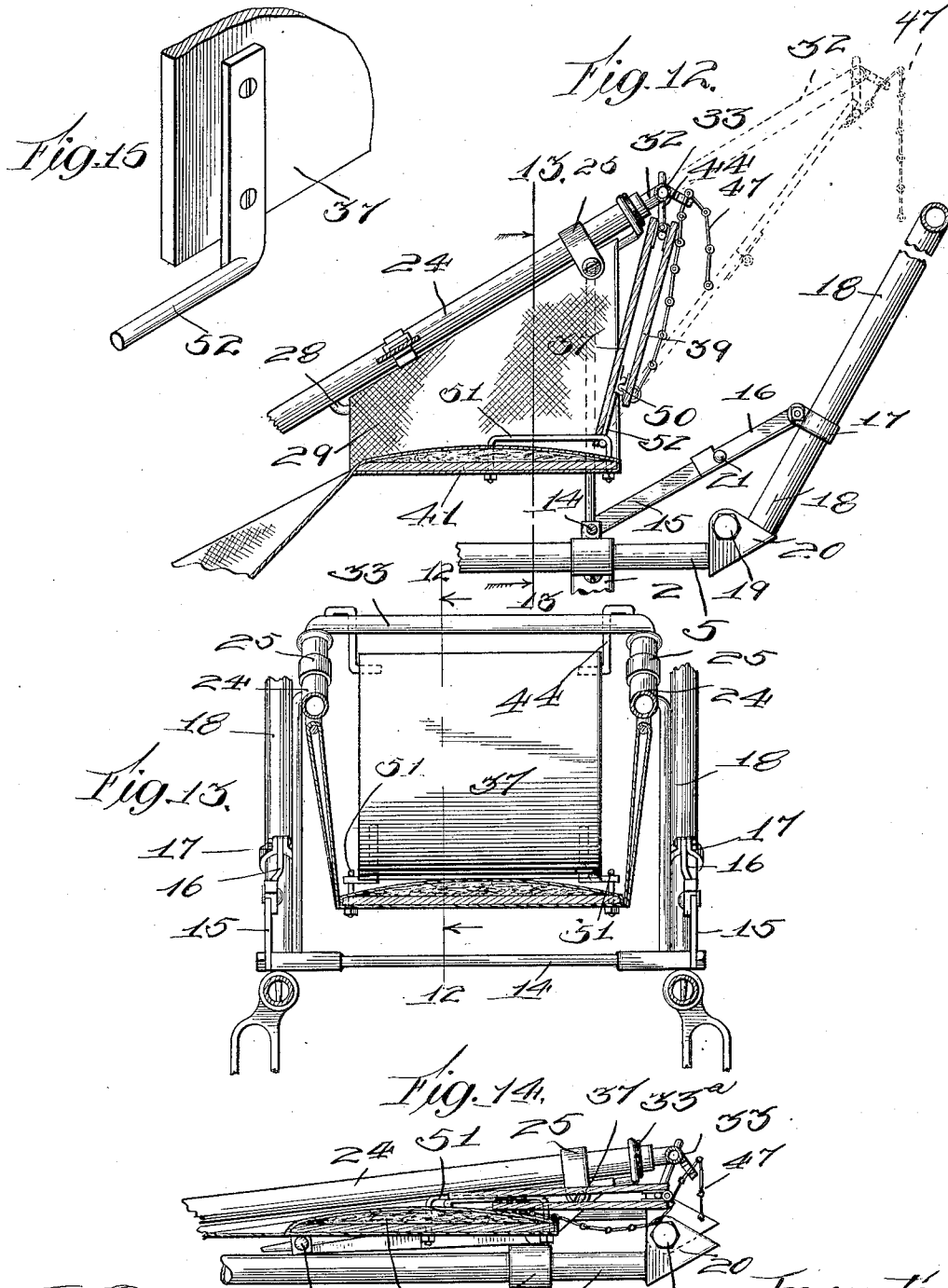
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4 SHEETS—SHEET 4.

1,057,569.



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UNITED STATES PATENT OFFICE.

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FOLDING PERAMBULATOR.

1,057,569.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Application filed December 5, 1904. Serial No. 235,529.

To all whom it may concern:

Be it known that I, ALBERT E. MCGILL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Perambulators, of which the following is a full, clear, and exact specification.

My invention relates more particularly to that type of folding perambulators or go-carts especially adapted for the use of children and provided with means whereby the seat and handle as well as the wheels may be folded into a substantially flat, compact form, and the invention has for one of its important objects to provide a folding, reclining back for the seat of a device of this character which shall be capable of being adjusted to various positions and folded into a compact form with the balance of the device when not in use.

With a view to the attainment of these ends and certain other objects which will hereinafter appear, the invention consists in the features of novelty hereinafter described with reference to the accompanying drawings and more particularly pointed out in the claims.

In the said drawings—Figure 1 is a side elevation of my improved perambulator. Fig. 2 is a plan view thereof. Fig. 3 is a vertical sectional view showing the back of the seat in different positions in dotted lines. Fig. 4 is an enlarged detail view of one of the supports for the back. Fig. 5 is an enlarged plan view of the chain clutch. Fig. 6 is a sectional view thereof on the line 6, 6 Fig. 5. Fig. 7 is an enlarged detail view of the catch for securing the sections of the back together. Fig. 8 is a front elevation of the complete device. Fig. 9 is a vertical, longitudinal, sectional view of one of the side bars of the seat frame on an enlarged scale. Fig. 10 is a vertical, longitudinal section of one of the side bars of the running gear frame taken through one of the forks and showing the means of locking the fork in position. Fig. 11 is a perspective view of the upper end of another one of the forks and the tube support, and Figs. 12 to 15 inclusive illustrate a certain

modification hereinafter described, Fig. 12 being a vertical sectional view of part of the device taken on the line 12, 12 Fig. 13, Fig. 13 is a section on the line 13, 13 Fig. 12, Fig. 14 is a section similar to Fig. 12 showing the parts folded up, and Fig. 15 is a detail perspective view of one of the guide lugs on the lower end of the back.

The rear wheels 1 are mounted in forks or supports 2 which have collars 3 at their upper ends rigidly secured to the rear ends of two sleeves or tubes 4 which are journaled upon the side bars 5 of the running gear frame, the forward ends of these side bars being connected together by a cross bar 6 preferably formed integrally therewith. The front wheels 7 are journaled in suitable forks or supports 8 which have collars 9 also rigidly secured to the tubes or sleeves 4 at their forward extremities and these collars 9 are formed with shoulders 10 which are adapted to engage shoulders 11 formed on collars 12 rigidly secured to the side bars 5, thus limiting the rotative movement of the sleeves 4 and the forks 2, 8 while allowing the forks and wheels to be folded together under the running gear frame, the front forks being thus rigidly connected to the rear forks in pairs by the tubes 4, however, will move in unison with the rear forks when they are turned and will be held in position when the rear forks are locked. In order that the rear forks may be thus locked locking pins 13 are provided for each of the collars 3 and the side bars 5, as shown in detail in Fig. 10, and these bars 5 are connected together across the running gear frame by a cross bar 14 which is pivoted at its ends to the lower links 15 of two toggles whose upper links 16 are pivoted to collars 17 on handle 18, the latter being hinged at 19 to lugs 20 on the rear ends of side bars 5. The downward movement of toggle center 21 is limited by any suitable stop 22 so that toggle levers will be held in a straight line during the use of the device but when it is desired to fold the handle up with the running gear frame the pins 13 may be withdrawn and the lower ends of the toggles pushed forwardly with the cross bar 14

while the handle 18 is lowered to a position substantially parallel with the running gear frame, the center 21 being in the meanwhile carried forwardly with reference to the cross bar 14. The cross bar 14 is also connected by deflectable standards or braces 23 to the upper or rear ends of two side bars 24 of the seat frame, by means of suitable clips 25 and these side bars 24 are hinged at their forward ends to the side bars 5 of the running gear frame, so that when the handle is folded downwardly and forwardly the seat frame will be also lowered into its folded position and when the handle is raised the seat frame will be raised to the position shown in Fig. 1 by virtue of its connection to the handle.

The forward ends of the bars 24 are pivoted on the upper horizontal portions 26 of U-shaped supports which have downwardly extending stems 27 secured in the side bars 5, the bends of this U being turned inwardly so as to support the seat frame at a position wholly within the running gear frame as better shown in Fig. 2 and also within the handle 18 which is as wide as the running gear frame and wider than the seat frame and consequently will, when folded, occupy a position substantially in the same plane as the seat frame whose forward end terminates a little short of the forward extremity of the running gear frame and of the handle when the latter is folded down upon the running gear frame. The standards or braces 23 together with the cross bar 14 constitute a U-shaped or tri-lateral frame supported upon the rear end of the running gear frame at its lower end and pivotally supporting by its upper end the upper end of the seat frame and also carrying at its lower end the downwardly projecting taper-pins 13 which pass through the tubular members of the running gear frame and wheel supports and lock them together. Thus it will be seen that the cross bar 14 of this U-shaped frame serves not only the important function of holding the lower ends of the braces or standards 23 from spreading or deflecting laterally with relation to the running gear frame, but the further important function of rigidly tying together and bracing the rear members 5 of such running gear frame which might otherwise spread while the cart is in use. In addition to this it also makes it possible to construct the braces or standards 23 of comparatively light stock or bars while affording ample stock at the lower ends for the attachment of the taper-pins 13, the outer extremities of the bar 14 being of sufficient body to provide for the firm attachment of the standards 23 as well as the taper-pins 13 and the links 15, which latter might cause the taper-pins to rotate in their sockets and twist the standards or braces 23 were it not for the

continuous connection from side to side afforded by the bar 14.

To the side bars 24 of the seat frame are secured the rods 28 which support the upper ends of the side portions 29 of the seat and in order that these side portions 29 may not slide down the rods 28 the latter are formed with offsets or notches 30, see Fig. 9, into which the material of the side portions 29 are depressed by pins 31 which constitute the pivots for the upper ends of standards 23.

The upper end of the seat frame is provided with an extension comprising two stems 32 and a cross bar 33 which is preferably formed integrally with these stems and the stems are inserted in the side bars 24 respectively so that when desired the seat frame may be extended a distance equal to substantially the full length of these stems 32, the upward movement of the stems being checked if desired by any suitable catches in the form of rings 33^a slipped over the upper ends of the side bars 24 and adapted to drop through slots 35 in each of said side bars and engage in a notch 36 in each of the stems 32 when the stem has been pulled outwardly a sufficient distance to bring the notch 36 into register with the slot 35. To this extension of the seat frame is attached the upper end of an adjustable, extensible back which will now be described. This back consists preferably of three sections, 37, 38, 39 which are connected together by suitable hinges 40, 41^a and the two sections 37, 38 are of such length that when the extension of the seat frame is at the lower extremity of its movement they will substantially fill the space between the upper end of said extension and the bottom 41 of the seat to which the section 37 is hinged at 42 by any suitable means, and when in this position the back is supported from the cross bar 33 of the seat frame extension. The means for thus supporting the back preferably consists of two brackets better shown in Fig. 4 and comprising horizontal portions 43 projecting toward each other between the sections 38, 39 of the back, and vertical portions 44 are passed through the cross bar 33 and are thence returned into the cross bar as shown at 45 and held by any suitable means as a nut 46. The end of the back section 39 which is lowermost when the back is in the position shown in Fig. 3, is attached to a chain or other suitable flexible connection 47 which is passed upwardly through a clutch of any appropriate form such as a key hole slot 48 formed in the lugs 49 on the rear side of cross bar 33 and adapted to grip the chain at any position of its adjustment. It will thus be seen that when the seat frame extension is pulled upwardly in the position shown in dotted lines in Fig. 3, the back sections may be unfolded as also shown in said

figure and thereby produce a reclining back. The degree of inclination of the back may then be varied to suit the requirements by merely manipulating the chain in the clutch 48, allowing it to run downwardly through the larger part of the key hole slot until the desired inclination is reached when it may be fastened by simply slipping one of the links into the narrow portion of the slot.

When the back is to be folded up with the seat and the running gear frame, the lower end of the section 39, which is ordinarily held in place by any suitable clip 50 comprising two members, one of which is attached to section 37 and the other to section 39, is raised from the position shown in Fig. 3 and turned forward until the hinge 40 arrives at the bottom 41 and the section 39 is straight with the section 38, the purpose of the short section 38 being to compensate for the difference in the distance between the hinge 40 when it is thus lowered and the supporting brackets 43 and said brackets 43 and the hinge 42 when the back is in the position shown in Fig. 3. The seat frame will now be lowered, carrying the upper end of the section 39 downwardly with it on an arc taking the hinge 40 as a center, thus bringing the folded back flat upon the bottom of the seat and the seat of course is lowered between the side bars of the running gear frame as the seat frame descends.

Referring now to the modified form illustrated in Figs. 12 to 15 inclusive, it will be seen that instead of hinging the lower edge of the back member or section 37 to the bottom 41 at a fixed point, it is provided with a sliding hinge capable of allowing the lower edge of said back section to slide forwardly when the seat frame is folded up, and thus do away with the additional section 38 employed in the other form. This sliding hinge may be constituted by a pair of keepers 51 secured to the bottom 41 and a pair of pivots 45 or lugs 52 secured to the lower edge of the back section 37 and projecting outwardly into engagement with the keepers 51. When the back is in use these lugs 52 are at the rear ends of the keepers, as shown in Figs. 12 and 13, but when it is folded up they slide forwardly in the slots constituted by the keepers and the surface of the bottom part of the seat as shown in Fig. 14 thus allowing the upper part of the back to descend with the brackets 43 and seat frame, which latter partially embraces the back section as shown in Fig. 14.

Having thus described my invention what I claim as new therein and desire to secure by Letters Patent, is:

1. In a folding perambulator the combination of a running gear frame, a seat frame adapted to fold up therewith, a seat supported on said frame and comprising a back and a bottom and said back comprising a

plurality of hinged sections adapted to fold together back to back, means pivotally supporting the lower edge of the back whereby the back may fold with relation to the bottom, and means on the seat frame engaging between said back sections at the upper edge thereof for supporting the same.

2. In a folding perambulator the combination of a running gear frame, a seat frame adapted to fold up therewith and comprising a main portion and an extensible portion, a seat comprising a bottom and a back hinged together and supported on said main portion and extensible portion respectively and said back comprising a plurality of sections relatively movable whereby the back may be extended, and a flexible connection between one of said sections and said extensible portion of the seat frame for changing the inclination of the back.

3. In a folding perambulator the combination of a running gear frame, a seat frame adapted to fold up therewith and comprising hollow side bars and an extensible portion telescoped with said side bars, a seat comprising a back and a bottom hinged together and supported on said side bars and extensible portion respectively and said back comprising a plurality of extensible sections.

4. In a folding perambulator the combination of a running gear frame, a seat frame adapted to fold up therewith and comprising an extensible portion, a seat comprising a back consisting of hinged sections, and brackets on said extensible portion and over which said hinged sections are adapted to be hung.

5. In a folding perambulator the combination of a running gear frame, a seat frame adapted to fold up therewith, a seat comprising a hinged back, a flexible connection secured to the free end of the back and having enlargements at intervals, and a grip on the seat frame for engaging said flexible connection.

6. In a folding perambulator the combination of a running gear frame comprising side bars, wheel forks rotatably mounted on said side bars and said forks and side bars having registering sockets or perforations, a seat frame pivotally related to said running gear frame, standards for supporting said seat frame in its elevated position, pins on said standards adapted to enter said registering perforations or sockets for locking said wheel fork, and a cross bar connecting said pins together.

7. In a perambulator the combination of a running gear frame, U-shaped brackets arranged in a horizontal position with the bowed ends turned inwardly at the forward end of said running gear frame, threaded stems on said brackets passing through and secured to the running gear frame, a seat frame pivoted on the free ends of said back-

ets, and a U-shaped handle hinged to the other end of the running gear frame and being of greater width than said seat frame and adapted to fold down around the same, 5 over said brackets.

8. In a folding perambulator, the combination of a running gear frame, a seat frame adapted to fold up therewith and comprising a hinged and extensible back, flexible 10 means secured to the extensions of the back, and means on the seat frame adapted to be engaged by the flexible member for holding the back extended.

9. In a folding perambulator, the combination of a substantially horizontal running gear frame embodying side bars, a seat structure above said frame embodying hinged side arms adapted to fold down into close relation thereto, wheel supports rotatably mounted upon the side bars of the running gear frame, said supports and running gear frame having registering sockets, an upright U-shaped frame foldable with relation to the running gear frame and serving 20 at its upper end to support said side arms, and pins on the lower end of said U-shaped frame adapted to seat in said registering sockets.

10. In a folding perambulator, the combination of a seat structure embodying side arms and a seat having a back portion, extensions slidable lengthwise of said side arms and supported thereon for supporting said back portion in different positions, and

means for supporting and carrying said seat structure. 35

11. In a folding perambulator, the combination of a seat structure embodying side arms and a seat having a back portion, extensions telescoped with said side arms for supporting said back portion in various positions, and means for supporting and carrying said seat structure. 40

12. In a folding perambulator, the combination of a seat structure embodying side arms and a seat having an extensible back portion, extensions supported by and slidable lengthwise upon said side arms for supporting said back portion in various positions, means connecting the upper ends of said extensions together, and means for supporting and carrying the seat structure. 45

13. In a folding perambulator, the combination of a seat structure embodying side arms and a seat having a back portion, extensions slidably supported upon side arms respectively for holding said back portion in various positions, means cooperating with said extensions and side arms for limiting the outward extending movement of said extensions with relation to the side arms, and means for supporting and carrying said seat structure. 50 55 60

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