

C. E. FANNING.
FOLDABLE PERAMBULATOR.
APPLICATION FILED APR. 3, 1908.

970,202.

Patented Sept. 13, 1910.

2 SHEETS—SHEET 1.

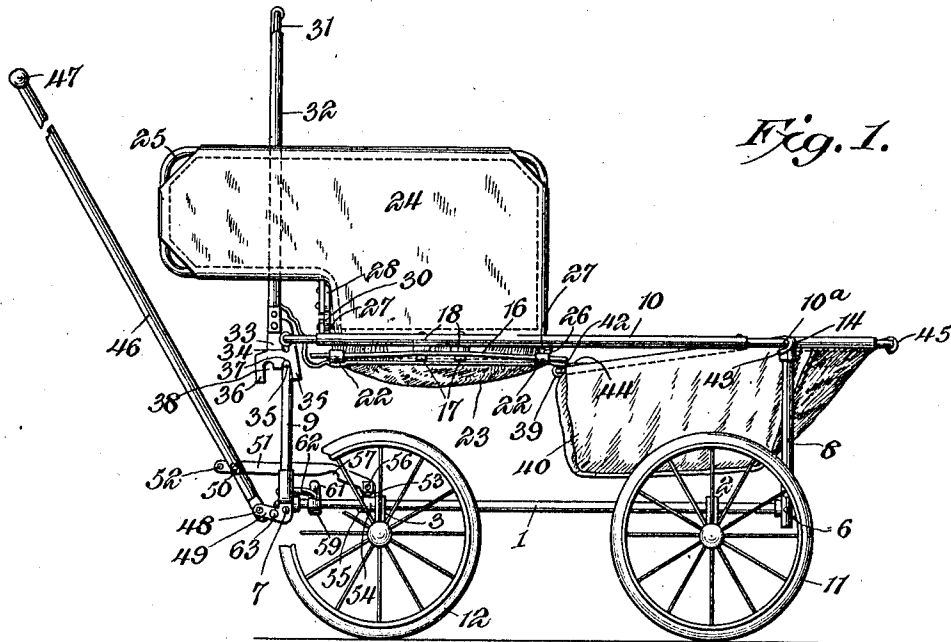


Fig. 1.

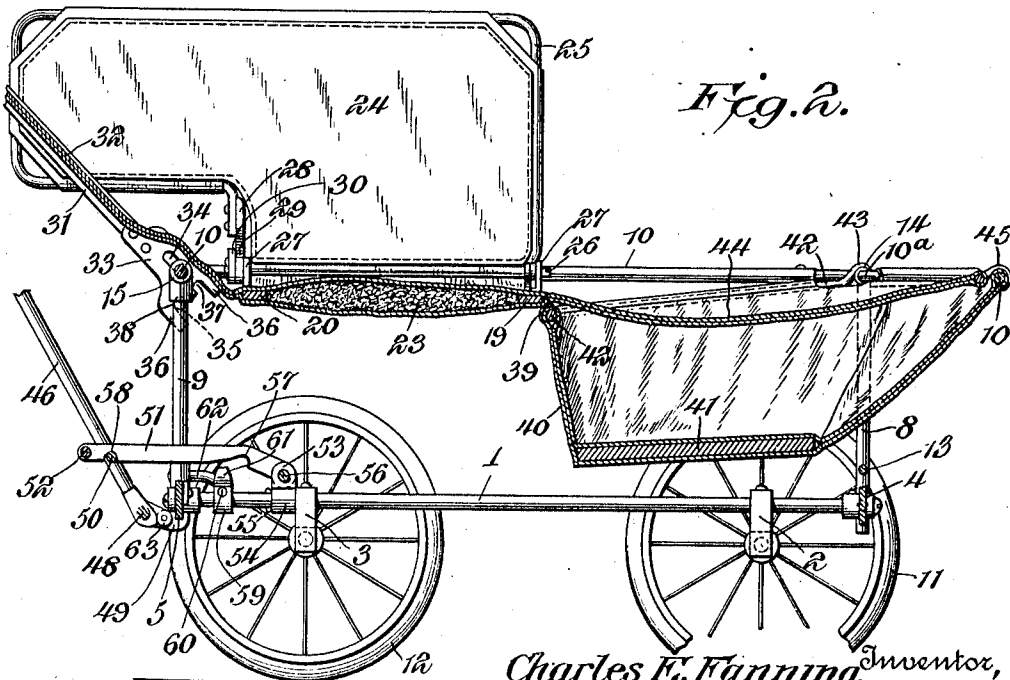


Fig. 2.

Witnesses

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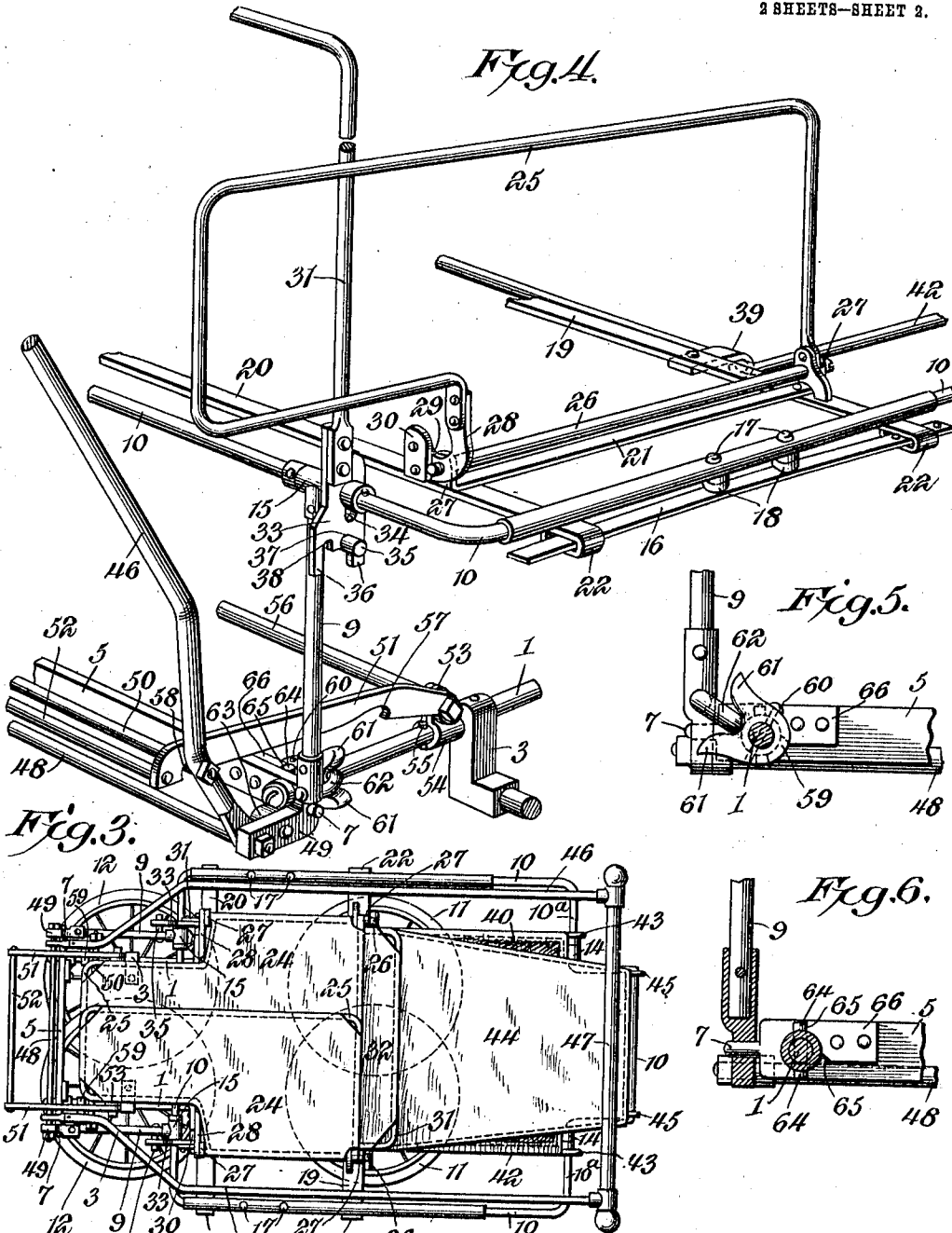
Attorney

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UNITED STATES PATENT OFFICE.

CHARLES EDWARD FANNING, OF DAVENPORT, IOWA.

FOLDABLE PERAMBULATOR.

970,202.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed April 3, 1908. Serial No. 424,960.

To all whom it may concern:

Be it known that I, CHARLES E. FANNING, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented a new and useful Foldable Perambulator, of which the following is a specification.

The invention relates to improvements in folding perambulators.

The object of the present invention is to simplify and improve the construction of folding perambulators, and to provide a light, strong and durable folding perambulator, adapted to be quickly operated to fold it or arrange it for use, and capable of folding into a comparatively small space for convenient carrying, storing, shipping, etc.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a side elevation of a foldable perambulator, constructed in accordance with this invention. Fig. 2 is a central longitudinal sectional view of the same. Fig. 3 is a plan view, the perambulator being folded. Fig. 4 is a detail perspective view of the rear portion of the frame-work, illustrating the manner of mounting the foldable back and sides and the means for locking the parts in position for use and for actuating the same to fold the perambulator. Fig. 5 is a detail sectional view, illustrating the construction for partially rotating the longitudinal rock shafts of the running gear. Fig. 6 is a similar view, illustrating the construction for limiting the movement of the rock shafts in one direction when the parts are arranged for use.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

The running gear of the perambulator comprises a pair of parallel longitudinal rock shafts 1, carrying front and rear L-

shaped stub axles 2 and 3, and journaled at their terminals in suitable bearings of front and rear transverse end bars 4 and 5. The rock shafts are held against longitudinal movement in the bearings by means of suitable collars, located in the front and rear of the transverse bars 4 and 5, but any other suitable means may be employed for this purpose. The transverse bars 4 and 5 are provided with laterally extending terminal pivots 6 and 7, which pierce the lower ends of front and rear longitudinally foldable standards 8 and 9, arranged in parallelism and connected at their upper ends by a horizontal body supporting frame 10.

The stub axles 3 consist of inner vertical portions and outer horizontal portions, the inner portions depending from the rock shafts and the outer portions being provided with spindles for the reception of front and rear wheels 11 and 12. The depending inner portions or arms drop the pivots of the wheels below the plane of the rock shafts and, when the latter are partially rotated, as hereinafter more fully explained, the wheels are folded beneath the running gear and the horizontal body supporting frame 10, as clearly illustrated in Fig. 3 of the drawings. A quarter revolution of the rock shafts carries the wheels from the vertical position illustrated in Figs. 1 and 2 of the drawings to the horizontal position shown in Fig. 3.

The front standards 8 are connected at their lower portions by a transverse rod 13, which braces the front portion of the running gear. Any suitable means, however, may be employed for strengthening and bracing various parts of the perambulator, as will be readily understood. The upper ends of the front and rear standards are equipped with sleeves 14 and 15, through which the horizontal body supporting frame 10 passes, the frame 10 being provided at its front portion with transverse bends 10^a, which extend through the sleeves 14 of the front standards. The frame 10 is equipped at its rear portion with longitudinal seat supporting springs 16, located beneath the side bars of the frame 10 and secured at their intermediate portions to the said side bars by bolts 17, located at opposite sides of the centers of the springs, which are spaced from the side bars of the frame 10 by washers 18, or other suitable spacing

means. The front and rear portions of the springs are free, and are connected with and support a seat frame, composed of front and rear transverse bars 19 and 20 and longitudinal side bars 21. The terminals of the transverse bars 19 and 20 are bent upon themselves to form loops 22, through which the springs 16 pass.

The seat frame supports a seat 23, constructed of leather, or other suitable material and preferably padded, as shown in Fig. 2 of the drawings. By this construction, the seat is yieldably supported by the springs and suspended from the connecting frame 10. The seat frame also carries inwardly folding sides 24, constructed of leather, or other suitable material and provided with marginal frames 25 of rod metal, or other suitable material. The marginal frames 25 of the sides are approximately oblong, and the lower side portions 26 form pivots and are mounted in perforated ears 27, preferably formed by the up-turned terminals of the longitudinal bars 21 of the seat frame. The inwardly folding sides are provided at the back of the marginal frames with plates or members 28, having recesses 29 at their inner sides and carrying cams 30, projecting upwardly from the bottoms of the recesses and presenting curved upper edges, which are arranged to be engaged by the sides of a marginal frame 31 of a foldable back 32. The back 32 is constructed of leather, or other suitable material, which may be integral with the material of the seat 23, as shown in Fig. 2 of the drawings. The back is foldable forwardly with relation to the sides, and the cams 30 are arranged in the path of the sides of the marginal frame of the back 32, whereby when the back is swung forwardly and downwardly, its frame will engage the cams and automatically fold the sides inwardly upon the back. The recesses of the plates or members of the frame 25 of the sides receive the adjacent portions of the marginal frame of the back, when the parts are folded and the sides are automatically unfolded by the back when the perambulator is unfolded and arranged for use.

The back, which is pivotally connected at the bottom with the frame 10, is provided at the lower ends of the sides of its marginal frame 31 with plates or members 33, having slots 34 receiving the rear transverse bar or member of the frame 10 and permitting the foldable back to be moved upwardly and downwardly to engage the plates or members 33 with and disengage them from studs 35 of the rear standards. The slots 34 extend longitudinally of the back, and the plates or members 33, which are provided at the bottom with spaced depending lugs 36, have front and rear recesses 37 and 38, located between the lugs 36. The front recesses are adapted, as illustrated in Fig. 1

of the drawings, to be engaged with the studs 35 of the rear standards for locking the back 32 in a vertical position, and the rear recesses are engaged with the studs for supporting the back in an inclined position. The front recess is of sufficient depth to interlock the member with the stud for preventing the back from swinging forwardly or rearwardly, and the rear transverse end or pivot portion of the frame 10 lies in the upper portion of the slot 34. The back is lifted out of engagement with the studs when it is desired to swing it rearwardly, and the rear end of the frame 10 lies in the lower portions of the slots 34 when the back is at an inclination, as shown in Fig. 3. The back when in this position may be readily swung forward to a vertical position.

The front transverse bar of the seat frame is also equipped with forwardly projecting eyes 39, and supports the upper rear edge of the foot rest or foot-receiving portion 40, which constitutes the front portion of the body of the perambulator. The foot rest or foot-receiving portion, which is constructed of leather, or other suitable material, is composed of a bottom and front, rear and side walls, the bottom being preferably stiffened by a board 41, as shown in Fig. 2 of the drawings, but any other suitable construction of bottom may be employed. The front portion of the foot rest or foot-receiving portion 40 is secured to the front portion of the frame 10, which is reduced in width by the said lateral bends thereof, and the side and rear portions of the foot rest 40 are equipped at their upper edges with an approximately U-shaped marginal frame or piece 42, consisting of side portions and a rear transverse connecting portion, which is arranged in the eyes 39 of the seat frame. The side portions of the frame or piece 42 are provided at their front ends with terminal hooks 43, which engage the front portion of the frame 10 at the lateral bends 10^a thereof. The foot rest or foot-receiving portion is adapted to form a receptacle for various articles.

The perambulator is also equipped at the front with a foldable apron or support 44, connected at its rear edge to the seat and provided at its front edge with hooks 45, adapted to engage the front end of the frame 10. The apron or support extends across the foot rest or foot-receiving portion, and coöperates with the seat to provide a support for permitting a child to be laid down in the perambulator. When the apron or support, which is preferably constructed of leather, is not in use, it is folded within the rear portion of the foot rest.

The perambulator is provided at the back with a handle, composed of inclined side bars 46 and a top connecting bar 47, adapted to be grasped by the person pushing the

perambulator. The lower terminals of the sides of the handles 46 are pivoted by a transverse rod 48 between a pair of rearwardly extending arms 49 of the rear standards 9. The sides of the handle are also connected at their lower portions by a transverse rod 50, which, when the perambulator is arranged for use, is engaged by a foot operated locking device composed of spaced sides 51 and a connecting cross rod 52. The sides of the locking device extend longitudinally of the running gear, and are pivoted at their front terminals to projecting lugs 53 of collars 54, mounted on the rock shafts 1 at the rear faces of the rear axles. The collars 54 are interposed between the rear faces of the axles 3 and pins 55, which pierce the rock shafts and project therefrom. The lugs of the collars 54 are connected by a transverse rod 56, which constitutes the pivot of the locking device. The sides of the locking device are provided with front and rear recesses 57 and 58. The front recess receives the transverse rod 50, when the parts are folded, and the rear recess engages the transverse rod and locks the handle rigid with the running gear of the perambulator, when the latter is arranged for use. The connecting rod 52 of the locking device is located in rear of the transverse rod 50 of the handle, and is adapted to be readily engaged by the foot of the operator to unlock the handles.

When the handles are unlocked, they are adapted to be swung forward into engagement with the rear side portions of the frame 10, which is moved forwardly with relation to the running gear. This forward movement of the frame 10 swings the front and rear standards downwardly with relation to the rock shafts of the running gear. The rock shafts of the running gear are equipped with arms or members 59, consisting of blocks or plates provided with perforations to receive the rock shafts, and fixed to the same at the rear ends thereof by means of pins 60, or other suitable fastening devices, which pierce the plates or arms and the rock shafts. The arms or projecting members of the rock shafts are recessed to form jaws 61, provided with inner curved edges and forming inwardly tapered crotches, which receive fingers 62, projecting forwardly and inwardly from the rear standards, and adapted to partially rotate the rock shafts, when the standards are oscillated. When the standards are swung forwardly, the projecting fingers engage the jaws at each side of the running gear and partially rotate the rock shafts to fold the wheels beneath the running gear. This folding movement of the rear standards swing the foldable back downwardly and forwardly upon the seat and carries the marginal frame of the back into engagement

with the foldable sides to swing the same down upon the back. The parts are readily unfolded by grasping the handle and shaking the perambulator, which through its weight, will automatically unfold. The lower ends of the handles engage stops 63, consisting of nuts secured to the inner faces of rearwardly extending arms 49, but any other form of stop may be provided.

The rear portions of the rock shafts are also equipped with projecting pins 64, arranged to engage shoulders 65 of plates 66, secured to the rear transverse bar 5 to limit the movement of the rock shaft in unfolding the parts, whereby the wheels are retained in a vertical position, the folding movement being limited by the engagement of the fingers 62 with the upper members of the jaws 61.

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

1. A perambulator comprising a running gear including side rock shafts, wheels mounted on the rock shafts, and front and rear pivoted standards arranged to swing longitudinally of the perambulator, cooperating means mounted on the rock shafts and on the standards for plurality rotating the rock shafts when the standards are oscillated, and a foldable handle located in rear of the rear standards.

2. A perambulator comprising a running gear including longitudinal rock shafts, front and rear pivoted standards arranged to swing longitudinally of the perambulator and connected with and rotating the rock shafts, front and rear wheels carried by the rock shafts and foldable beneath the running gear by the rotary movement of the rock shafts, a foldable body carried by the standards, and a handle pivotally connected with the running gear and located in rear of the rear standards.

3. A perambulator comprising a running gear including longitudinal rock shafts, pivoted front and rear standards arranged to swing longitudinally of the perambulator and connected with and rotating the rock shafts, front and rear wheels carried by the rock shafts and foldable beneath the running gear by the rotary movement of the rock shafts, a foldable body carried by the front and rear standards, and a pivoted handle connected with the running gear in rear of the rear standards and arranged to actuate the latter.

4. A perambulator including a running gear having longitudinal rock shafts, front and rear wheels mounted on the rock shafts and foldable beneath the running gear, front and rear pivoted standards arranged to swing longitudinally of the perambulator, a body having a frame connected with the front and rear standards, means operated by

- the standards for rotating the rock shafts, and a handle pivoted to the running gear in rear of the rear standards and arranged to actuate the same.
- 5 5. A perambulator including a running gear having longitudinal rock shafts, front and rear wheels mounted on the rock shafts and foldable beneath the running gear, and front and rear pivoted standards, a body 10 having a frame connected with the standards, means operated by the standards for rotating the rock shafts, and a pivot handle located in rear of and arranged to oscillate the standards.
 - 15 6. A perambulator including a running gear having longitudinal rock shafts, front and rear wheels mounted on the rock shafts and foldable beneath the running gear, and front and rear pivoted standards, a body 20 having a frame connected with the standards, means operated by the standards for rotating the rock shafts, a pivot handle for oscillating the standards, and a locking device for holding the handle rigid with the 25 running gear.
 - 30 7. A perambulator including a running gear having longitudinal rock shafts, front and rear wheels mounted on the rock shafts and foldable beneath the running gear, and front and rear pivoted standards, a body 35 having a frame connected with the standards, means operated by the standards for rotating the rock shafts, a pivot handle for oscillating the standards, and a foot operated locking device provided with means for engaging the handle for holding the same at an inclination.
 - 40 8. A perambulator including a running gear having longitudinal rock shafts, front and rear wheels mounted on the rock shafts and foldable beneath the running gear, and front and rear pivoted standards, a body 45 having a frame connected with the standards, means operated by the standards for rotating the rock shafts, a pivot handle for oscillating the standards, and a locking device composed of spaced sides pivotally mounted on the running gear and provided with recesses, and means carried by the 50 handles for engaging the recesses, whereby the handle is locked rigid with the running gear.
 - 55 9. A perambulator comprising a running gear having longitudinal rock shafts, wheels carried by the rock shafts, and pivoted standards, a frame connecting the standards, a seat mounted on the frame, inwardly foldable sides, a back connected with the rear standards, and cooperating means on the 60 sides and on the back for folding the same simultaneously.
 10. A perambulator comprising a running gear having longitudinal rock shafts, wheels carried by the rock shafts, and pivoted standards, a frame connecting the standards, a seat mounted on the frame, a back connected with the rear standard and foldable upon the seat, and inwardly foldable sides having projecting means arranged in the path of the back, whereby the sides are fold- 70 ed with the back.
 11. A perambulator comprising a running gear having longitudinal rock shafts, wheels carried by the rock shafts, and pivoted standards, a frame connecting the stand- 75 ards, a seat mounted on the frame, a back connected with the rear standard and foldable upon the seat, and inwardly foldable sides provided with projecting cams arranged in the path of the back and adapted 80 to be engaged by the same to fold the sides.
 12. A foldable perambulator including a running gear, a rear standard, a back pivotally connected with the running gear and provided with a plate or member, means 85 carried by the rear standard and detachably engaged by the plate or member for holding the back in different positions, and a foldable handle connected with the running gear in rear of the rear standards. 90
 13. A foldable perambulator including a running gear, a rear standard, a back pivotally connected with the rear standard and provided with a plate or member having a plurality of recesses and slidably connected 95 with the running gear, fixed means mounted on the rear standard and engaging with the recesses of the plate or member for securing the back in different positions, and a foldable handle connected with the running gear 100 in rear of the rear standard.
 14. A perambulator including a running gear having pivoted standards, a frame carried by the standards, a foldable handle, a back provided with plates or members pivot- 105 ed to and slidably connected with the frame, and means mounted on the adjacent standards and operated independently of the handle and cooperating with the plate or member for holding the back either in a ver- 110 tical or inclined position.
 15. A perambulator including a running gear having pivoted standards, a frame carried by the standards, a back provided with slotted plates or members receiving portions 115 of the frame, said plates or members being also provided with depending lugs and having recesses located between the lugs, and studs mounted on the adjacent standards and cooperating with the said recesses for 120 holding the back either in a vertical or an inclined position.
 16. A perambulator comprising a running gear including longitudinal rock shafts, pivoted standards connected with and rotat- 125 ing the rock shafts, wheels carried by the rock shafts, a frame mounted on and carried by the standards, and opposite approximately

horizontal springs extending longitudinally of the perambulator and located beneath the frame and having free front and rear portions, and a seat connected with the front 5 and rear portions.

17. A perambulator comprising a running gear including longitudinal rock shafts, pivoted standards connected with and rotating the rock shafts, wheels carried by the 10 rock shafts, a frame mounted on and carried by the standards, springs located beneath the frame and having free terminal portions, and a seat yieldably supported by the terminal portions of the springs.

18. A perambulator comprising a running gear including longitudinal rock shafts, pivoted standards connected with and rotating the rock shafts, wheels carried by the 15 rock shafts, a frame mounted on and carried by the standards, a seat carried by the rear portion of the frame, and a front foot-receiving portion located in advance of the

seat and connected with the same and with the front of the frame.

19. A perambulator including a running 25 gear, a frame carried by the running gear and having spaced side bars located at opposite sides of the perambulator, springs secured to the side bars and located beneath the same, a seat connected directly to and 30 supported solely by the springs and also located below the side bars, and inwardly folding sides pivotally mounted at opposite sides of the said frame and extending upward above the side bars thereof and fold- 35 able downwardly and inwardly above the seat.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES EDWARD FANNING.

Witnesses:

JOHN H. SIGGERS,
S. GEORGE TATE.