

C. S. SPOFFORD, F. W. JONAS & J. W. BENNETT.

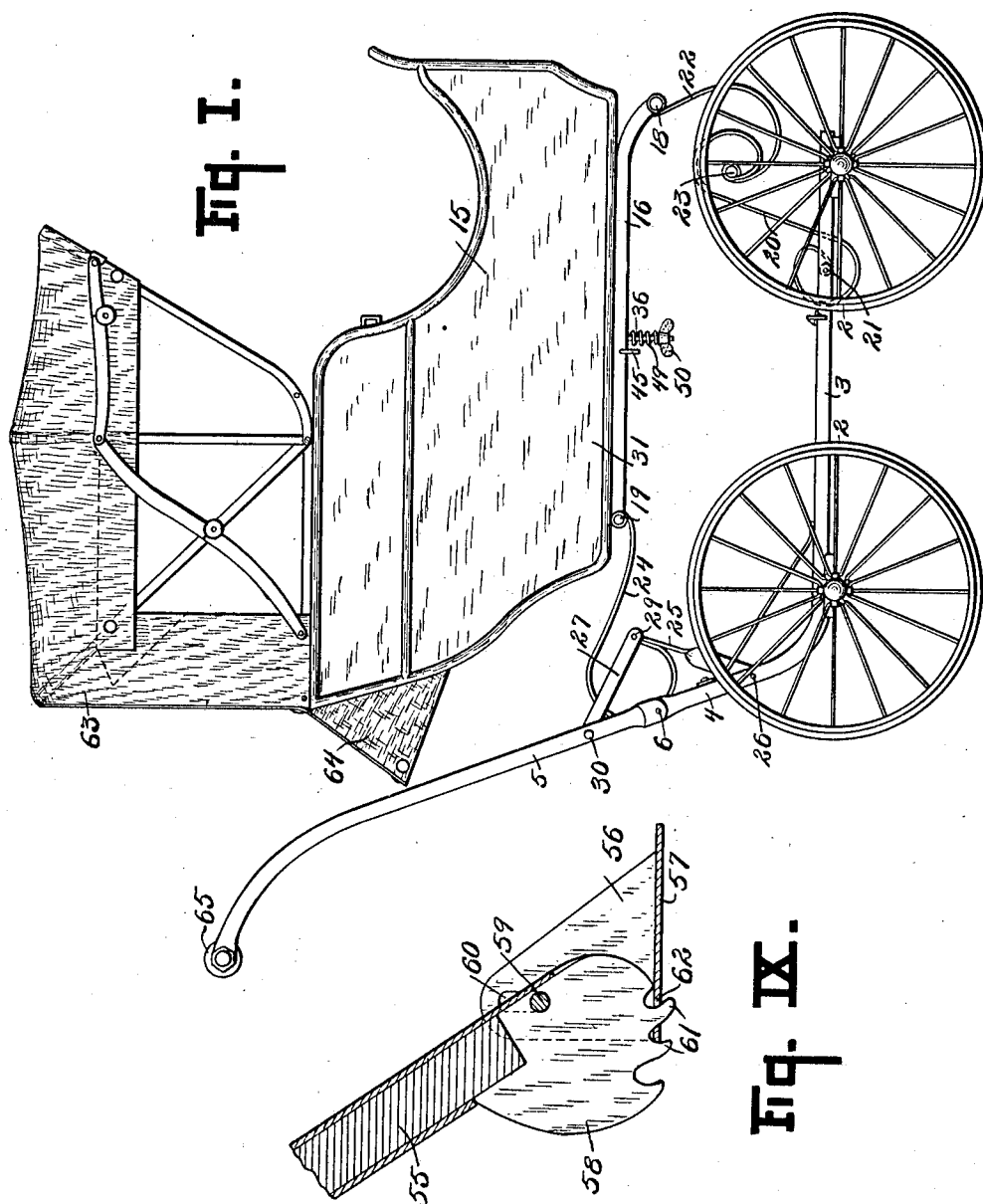
CHILD'S CARRIAGE.

APPLICATION FILED DEC. 9, 1911.

1,041,186.

Patented Oct. 15, 1912.

5 SHEETS-SHEET 1.



Witnesses.

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M. P. Woodruff.

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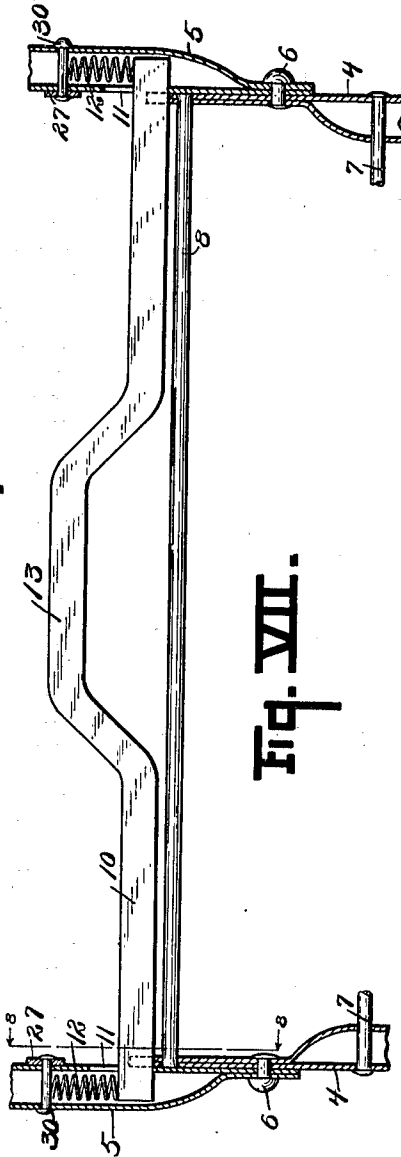
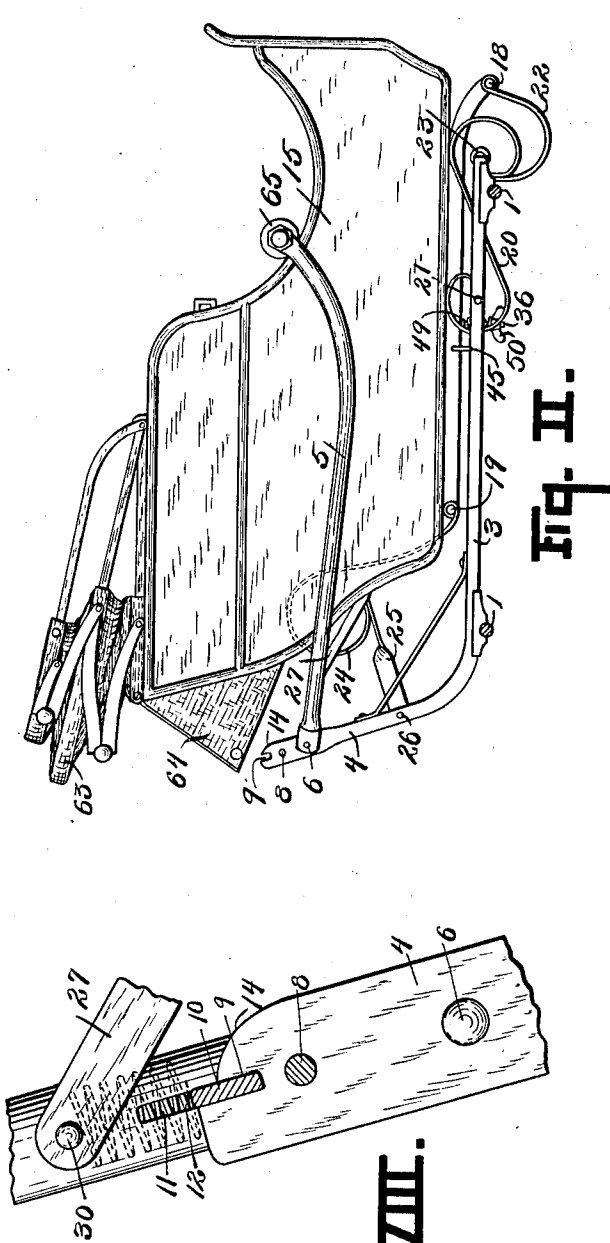
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5 SHEETS—SHEET 2.



Witnesses

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Fig. VII.

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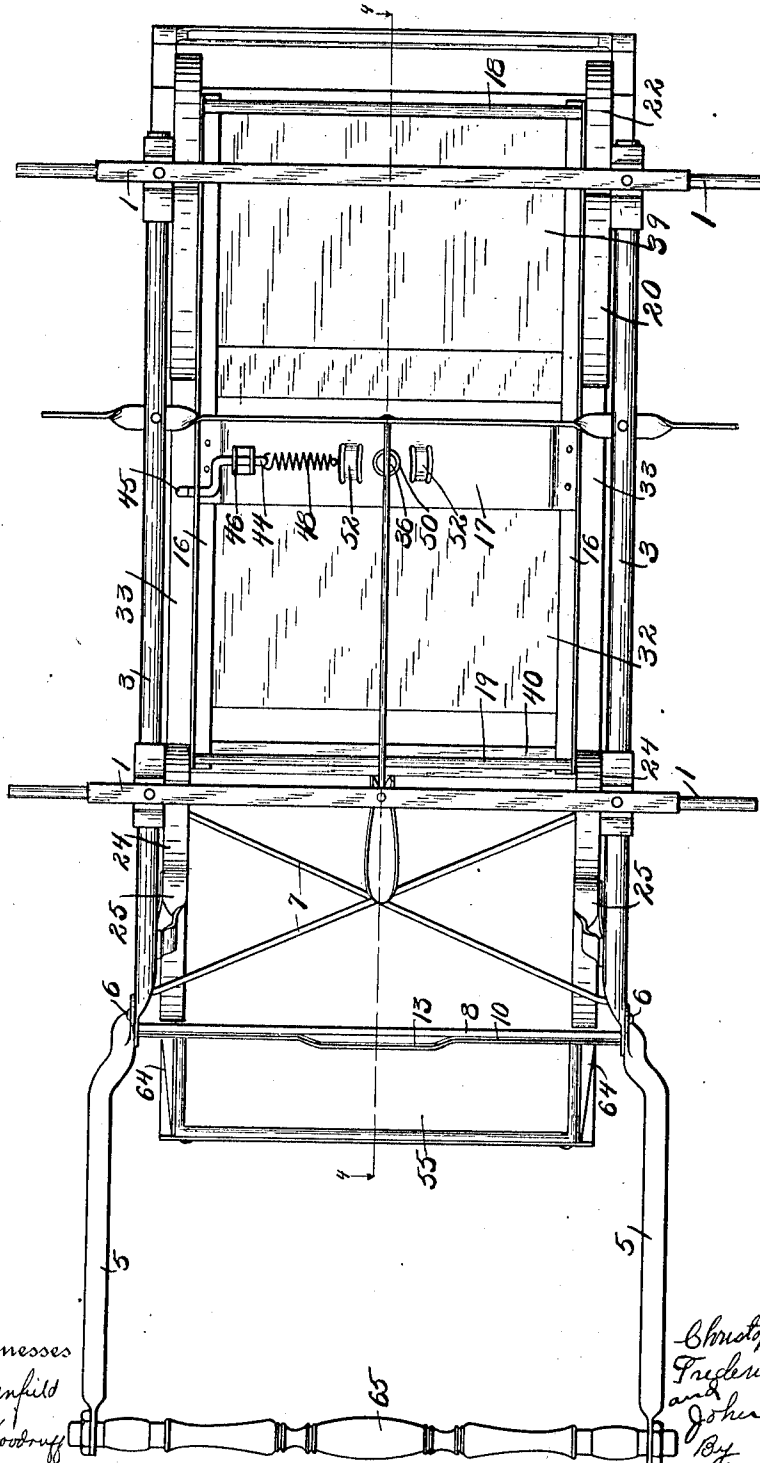


Fig. III.

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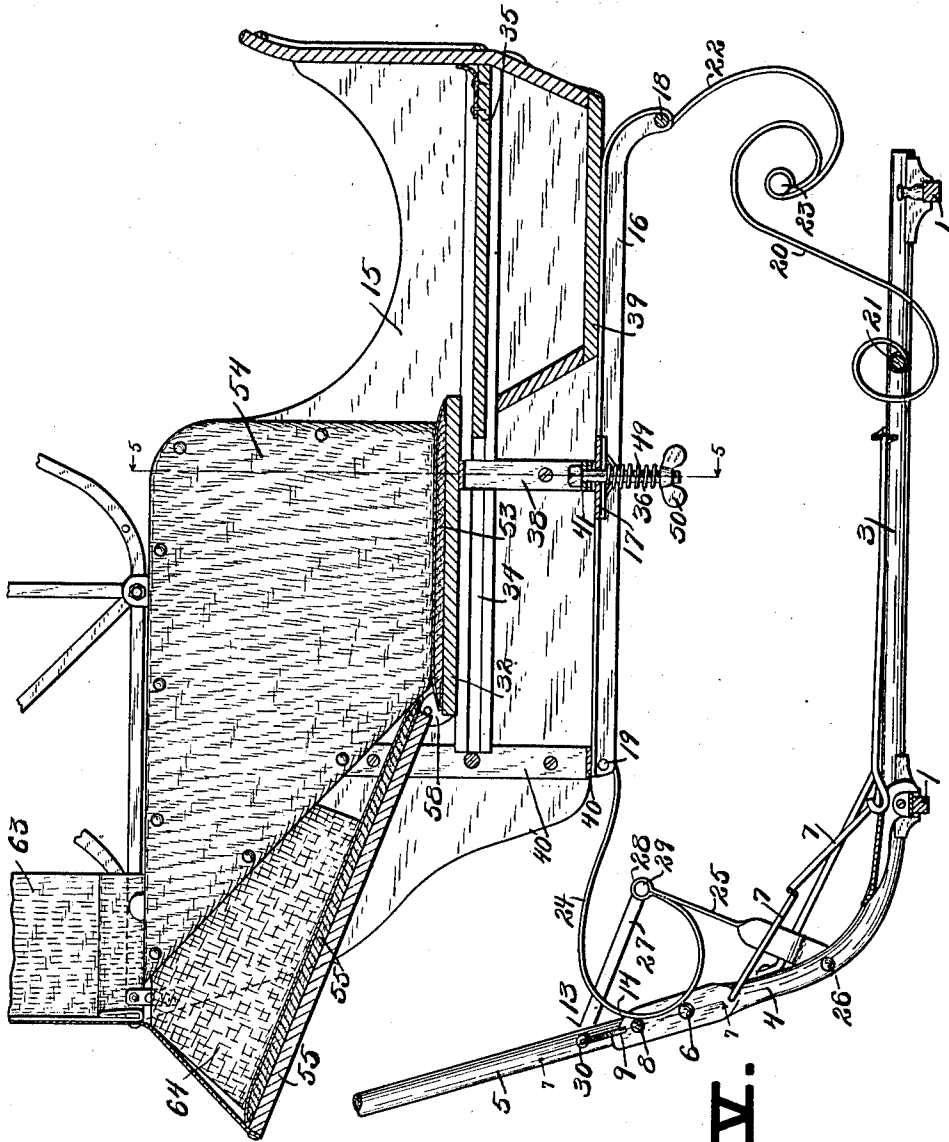


Fig. IV.

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5 SHEETS—SHEET 5.

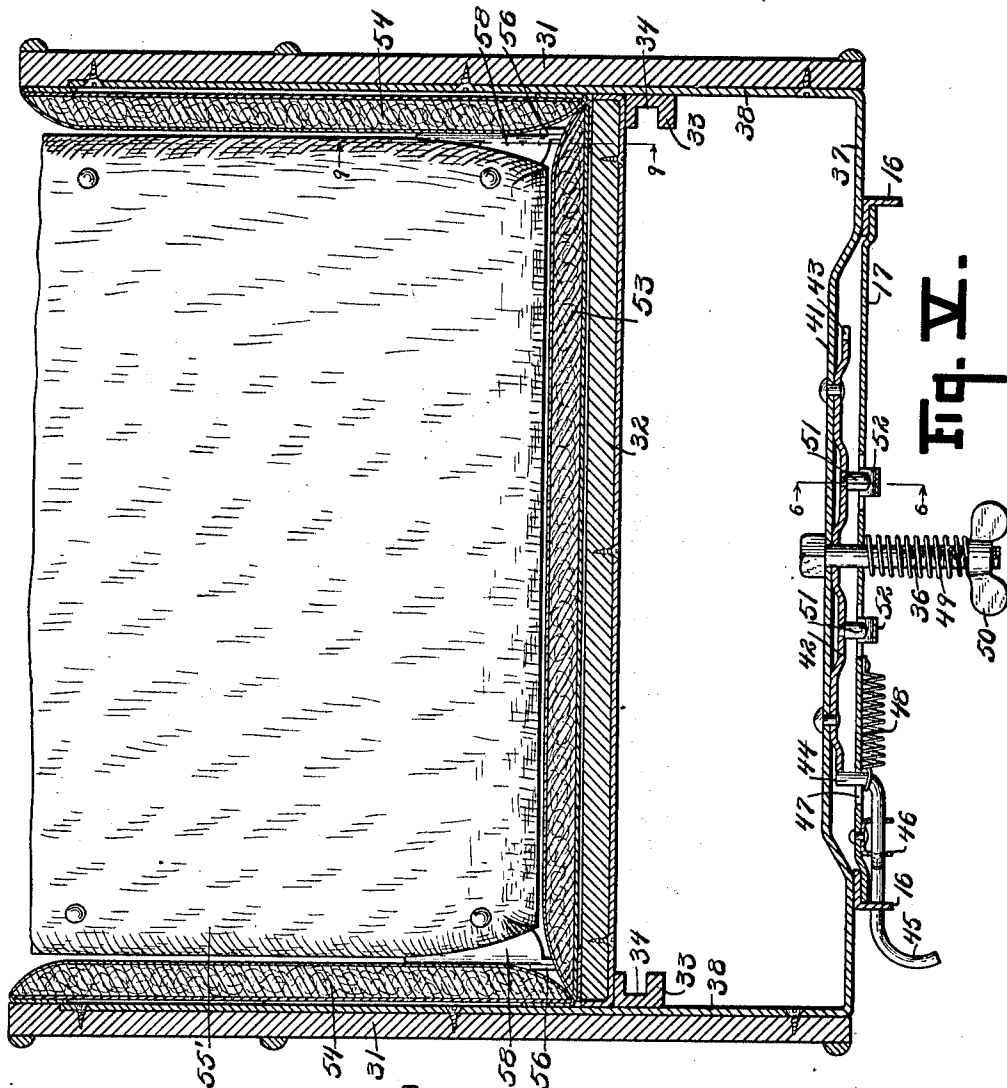


Fig. V.

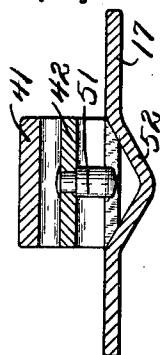


Fig. VI.

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UNITED STATES PATENT OFFICE.

CHRISTOPHER STEELE SPOFFORD, FREDERICK WILLIAM JONAS, AND JOHN WALLACE BENNETT, OF STURGIS, MICHIGAN, ASSIGNORS TO STURGIS STEEL GO-CART CO., OF STURGIS, MICHIGAN.

CHILD'S CARRIAGE.

1,041,186.

Specification of Letters Patent.

Patented Oct. 15, 1912.

Application filed December 9, 1911. Serial No. 664,751.

To all whom it may concern:

Be it known that we, CHRISTOPHER STEELE SPOFFORD, FREDERICK WILLIAM JONAS, and JOHN WALLACE BENNETT, citizens of the United States, residing at the city of Sturgis, county of St. Joseph, and State of Michigan, have invented certain new and useful Improvements in Children's Carriages, of which the following is a specification.

This invention relates to improvements in children's carriages.

The main objects of this invention are: First, to provide an improved construction of that class of carriage, in which the body can be reversed so that it faces from or toward the handle. Second, to provide an improved collapsible carriage especially adapted to reversible body structures.

Further objects, and objects relating to economies of construction and details of operation will definitely appear from the detailed description to follow.

We accomplish the objects of our invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure, which is a preferred embodiment of our invention, is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a side elevation of a structure embodying the features of our invention. Fig. II is a side elevation of the structure appearing in Fig. I collapsed, the wheels being omitted. Fig. III is an inverted plan view with the wheels omitted. Fig. IV is a detail vertical longitudinal section taken on a line corresponding to line 4—4 of Fig. III. Fig. V is a detail vertical transverse section taken on a line corresponding to line 5—5 of Fig. IV. Fig. VI is a detail section taken on a line corresponding to line 6—6 of Fig. V, showing details of the body support. Fig. VII is a detail transverse section taken on a line corresponding to line 7—7 of Fig. IV, showing details of the locking means. Fig. VIII is a detail section taken on a line corresponding to line 8—8 of Fig. VII. Fig. IX is a detail section taken on a line corresponding to line 9—9 of Fig. V, showing details of the adjustable back.

In the drawing, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, the axles 1 of the wheels 2 are connected by side bars 3, providing a rigid running gear frame. The rear ends of the side bars 3 are bent upwardly to provide upwardly-projecting arms 4 upon which the handle 5 is mounted, by pivots 6. The arms 4 are provided with crossed braces 7 and the cross rod 8 at their upper ends. The upper ends of the arms 4 are notched at 9 to receive the latch bar 10, the ends of the bar being arranged in slots 11 at the lower ends of the side members of the handle 5. This bar is adapted to drop into the notch-like keepers 9 in the ends of the arms 4 when the handle is erected. Coiled springs 12 are arranged within the tubular side members of the handles to engage the ends of this latch bar 10. The latch bar is offset upwardly at 13 to provide a hand hold. The front edges of the arms 4 are curved at 14, so that the latch bar is raised thereby, as the handle is erected, and automatically drops into the keepers 9.

The body 15 is pivotally mounted upon a body support to be reversed thereon, the body support being in turn mounted upon springs carried by the running gear frame. The body support, in the structure illustrated, consists of a pair of side bars 16 connected by the pivot plate 17 and cross rods 18 and 19. This body supporting frame is, as stated, supported by springs, the front springs comprising S-shaped members 20 which are pivotally mounted upon the side pieces of the running gear frame at 21, and the U-shaped members 22 which are pivotally mounted upon the front cross rod 18 of the body supporting frame 16. The spring members 20 and 22 are secured to each other at 23. The rear springs 24 are pivotally connected to the cross rod 19 at the rear end of the supporting frame 16. The springs 24 are carried by the arms 25 which are pivotally mounted on the running gear frame at 26. In the structure illustrated, the springs 24 and the arms 25 thereof are formed integrally. The arms 25 are connected to the side members of the handle by means of links 27. The springs 24 and

arms 25 are joined by eyes 28 adapted to receive the pivots 29 of the links 27. The links 27 are pivotally connected to the side members of the handle by the pivots 30, which also serve as rests for the upper ends of the latch springs 12.

The body 15 has rigid sides 31 between which the seat board 32 is supported by cleats 33. These cleats are provided with grooves 34 in their inner sides in which the false bottom board 35 is slidably supported, the board being adapted to slide under the seat. This bottom board is drawn out when it is desired to use the carriage as a bed, or for very young children. When drawn out, the space below can be used as a receptacle.

The body is pivotally supported upon the body supporting frame by means of the pivot bolt 36, which is arranged through the cross piece or pivot piece 37 of the body and the support pivot plate 17. The ends of the cross piece 37 are extended up at 38 on the sides of the body to reinforce the same, and to form a secure connection for the cross piece to the body. The body bottom board 39 is adapted to rest upon the supporting side pieces 16, as is also the cross piece 40 at the rear end of the body. This cross piece 40 is provided with upwardly-projecting arms 40', which also serve to brace and reinforce the sides of the body and form a secure attachment for the cross piece 40 thereto. The body pivot piece 37 also rests upon the running gear frame, as is shown in Fig. V. The central portion of the body pivot piece 37 is offset upwardly at 41 to provide a space between the same and the pivot plate 17 for the keeper member 42. This keeper member is provided with a notch 43 at each end adapted to receive the upturned engaging portion 44 of the catch 45. This catch 45 is slidably arranged through one of the supporting frame members 16 and through the supporting bracket 46 arranged on the under side of the plate 17, the engaging portions of the catch being disposed through the slot 47 in the plate 17, which also assists in supporting and guiding the latch. The latch is provided with a spring 48 which holds it normally in engaging position. The bolt 36 is provided with a spring 49, so that the body is yieldingly but firmly held upon its supporting frame. A winged nut 50 is provided for adjusting the tension of this spring.

On the keeper member 42 is a pair of downwardly-projecting pins or lugs 51, one at each side of the pivot bolt 36. The pivot plate 17 of the supporting frame is provided with cam-like depressions 52 adapted to receive these lugs when the keepers 43 are in position to receive the latch 45. These lugs riding on the plate 17 serve as bearing members for the body when the same is

reversed. They also assist in locating the body in proper position when it is reversed.

The seat 32 is provided with a suitable cushion or upholstery 53, while the sides 31 are provided with upholstery 54. The back 55 is also provided with upholstery 55'. The back 55 is pivotally supported upon the seat to be adjusted thereon. The back support consists of hinged members 56 having flange-like attaching portions 59 at their lower ends. The back has segment-like hinge members 58 provided with pivots 59 engaging the vertical slots 60 in the members 56. The segments 58 have a series of teeth 61 adapted to be engaged with the holes 62 in the attaching plates 57.

The top 63 in the structure illustrated, is of the bow type, and is mounted upon the body 15 to be collapsed as shown in Fig. II. The body is provided with flexible closing flaps 64, which extend between the back and the sides of the body. When the top is collapsed as shown in Fig. II, the handle 5 may be swung over the body, see Fig. II. The springs being pivotally supported, as described, allow the body to swing downwardly and forwardly. The carriage may be collapsed with the body facing either toward or from the handles, although in the structure illustrated, owing to the shape of the sides of the body, the structure collapses somewhat more compactly with the body facing forwardly, as shown, than when facing rearwardly. This, however, is a mere structural incident. By providing a suitably positioned stop for the handle, the body may be supported by its springs, both when in its erected and collapsed positions.

Our improved carriage can be reversed from one position to the other merely by disengaging the catch 45 and swinging the body on its pivot. In collapsing, with the parts arranged as in the structure illustrated, the top must be collapsed before the carriage can be collapsed to the position shown in Fig. II. The carriage is erected merely by swinging the handles to the position shown in Fig. I, in which position the handle latch automatically engages.

By forming the springs as we have illustrated and described, the carriage may be collapsed with substantially no strain upon the springs, and when the carriage is erected, the springs formed as shown are very resilient.

We have illustrated and described our improvements in a practical embodiment. We are, however, aware that various modifications in structural features are possible. We have not attempted to illustrate or describe the various modifications as they will be readily understood and the invention readily adapted from the disclosures here made. We desire, however, to be under-

stood as claiming our invention specifically, as here illustrated, as well as broadly within the scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. In a structure of the class described, the combination of a running gear frame, a body, a body support, a vertically disposed body pivot carried by said body support whereby said body may be reversed on said body support, body springs pivotally connected to said body support and to said running gear frame, the rear springs being carried by arms pivotally mounted on said running gear frame, a handle pivotally mounted on said running gear frame to collapse over said body, and links connecting said arms to said handle.

2. In a structure of the class described, the combination with the running gear, of a body, a body support, body springs by which said body support is carried, mounted on said running gear to be collapsed thereon, the body being pivotally mounted on its said support to be reversed thereon, a handle adapted to collapse over said body when the body is facing in either direction, and connections for said handle to said body springs whereby the body is collapsed and erected through said handle.

3. In a structure of the class described, the combination of a running gear frame having upwardly projecting arms at its rear end, a handle comprising tubular side members pivotally mounted on said arms, said side members being longitudinally slotted, a latch bar arranged in said slots, the upper ends of said arms being provided with notch-like keepers for said bar and being provided with cam portions extending to said notch-like keepers whereby the bar is automatically raised when the handle is erected, coiled springs for said latch bar arranged in said side members of said handle, a collapsible body, and connections for said handle to said body whereby the body is maintained in its erected position by said latch.

4. In a structure of the class described, the combination of a running gear frame, a handle comprising tubular side members pivotally mounted on said running gear frame, said side members being longitudinally slotted, a latch bar arranged in said slots, keepers on said running gear frame, coiled springs for said latch bar arranged in said side members on said handle, a collapsible body, and connections for said handle to said body.

5. In a structure of the class described, the combination of a running gear frame, a handle comprising tubular side members pivotally mounted on said running gear frame, said side members being longitudinally slotted, a latch bar arranged in said

slots, keepers on said running gear frame, a spring for said latch bar, a collapsible body, and connections for said handle to said body.

6. In a structure of the class described, the combination of a running gear frame, a body, supporting springs for said body, the front springs comprising S-shaped members and U-shaped members, one arm of each S-shaped member being pivotally connected to the running gear frame and one arm of each U-shaped member being pivotally connected to the body, the other arms of the members being connected to each other, U-shaped rear springs, one arm of each rear spring being pivotally connected to said body, supporting arms for the other arms of said rear springs pivotally mounted on said running gear frame, said springs and arms being formed integrally, a collapsible handle mounted on said running gear frame, and links connecting said rear spring supporting arms to said handle.

7. In a structure of the class described, the combination of a running gear frame, a body, supporting springs for said body, the front springs comprising S-shaped members and U-shaped members, one arm of each S-shaped member being pivotally connected to the running gear frame and one arm of each U-shaped member being pivotally connected to the body, the other arms of the members being connected to each other, U-shaped rear springs, one arm of each rear spring being pivotally connected to said body, supporting arms for the other arms of said rear springs pivotally mounted on said running gear frame, a collapsible handle mounted on said running gear frame, and links connecting said rear spring supporting arms to said handle.

8. In a structure of the class described, the combination of a running gear frame, a body, supporting springs for said body, the rear springs being U-shaped, one arm of each rear spring being pivotally connected to said body, supporting arms for the other arms of said rear springs pivotally mounted on said running gear frame, said springs and arms being formed integrally, a collapsible handle mounted on said running gear frame, and links connecting said rear spring supporting arms to said handle.

9. In a structure of the class described, the combination of a running gear frame, a body, supporting springs therefor, the front springs being pivotally mounted on said running gear frame and pivotally connected to said body, supporting arms for the rear springs pivotally mounted on said running gear frame, the rear springs being pivotally connected to said body, a handle mounted on said running gear frame to swing over said body, and links connecting said spring supporting arms and said handle.

10. In a structure of the class described, the combination of a running gear frame, a body, supporting springs therefor pivotally mounted on said running gear frame and pivotally connected to said body, the rear springs being provided with supporting arms, a handle pivotally mounted on said running gear frame and adapted to swing over said body, and links connecting said supporting arms and said handle.
11. In a structure of the class described, the combination of a running gear frame, a body, supporting springs for said body, a collapsible handle mounted on said running gear frame to swing over said body when collapsed, and connections for said handle to said springs whereby the body is supported in its erected position on said springs when said handle is erected.
12. In a structure of the class described, the combination of a running gear frame, a body, a body support, a vertically disposed body pivot carried by said body support, body springs pivotally connected to said body support and to said running gear frame, a collapsible handle adapted to swing over said body when the structure is collapsed, and means actuated by said handle for supporting said springs in their erected position.
- In witness whereof, we have hereunto set our hands and seals in the presence of two witnesses.
- CHRISTOPHER STEELE SPOFFORD. [L. s.]
FREDERICK WILLIAM JONAS. [L. s.]
JOHN WALLACE BENNETT. [L. s.]
- Witnesses:
F. L. BURDICK,
LOUISE ROMMEL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."