

A. W. LOSHBOUGH.
FOLDING BABY CARRIAGE.
APPLICATION FILED NOV. 5, 1907.

941,374.

Patented Nov. 30, 1909.
4 SHEETS—SHEET 1.

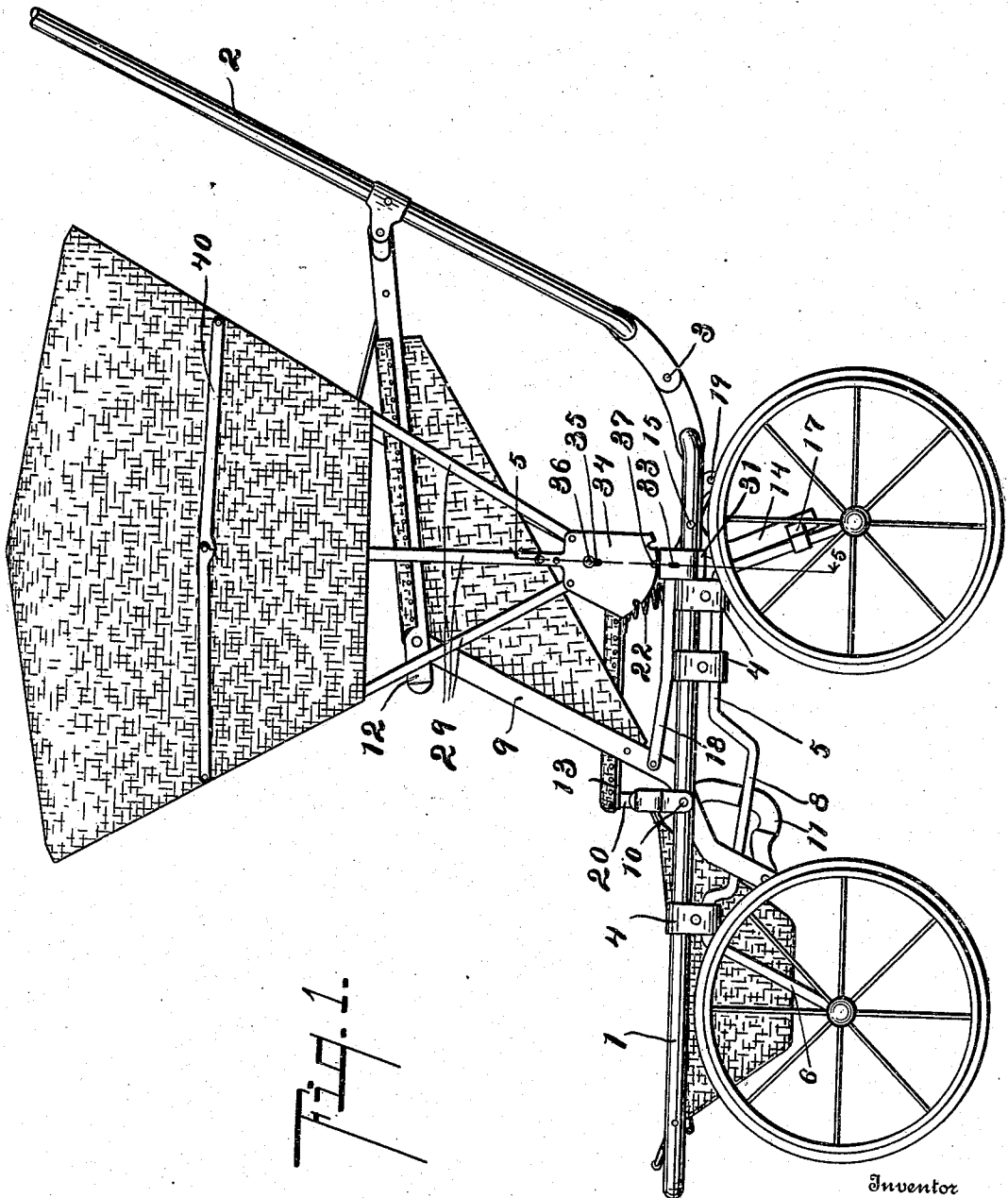


Fig. 1.

Witnesses

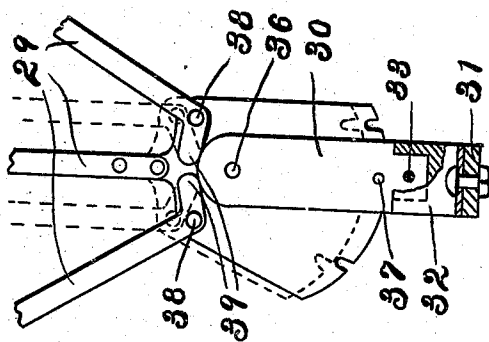
Clara E. Braden
Phineas Woodruff

By

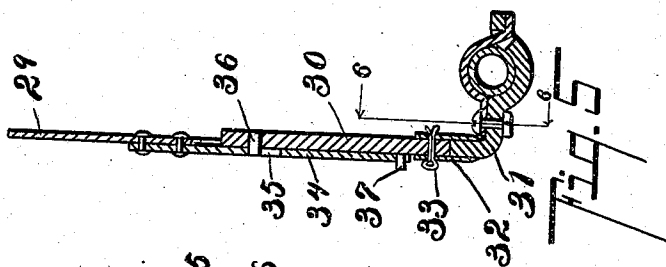
Inventor
Anthony W. Loshbough
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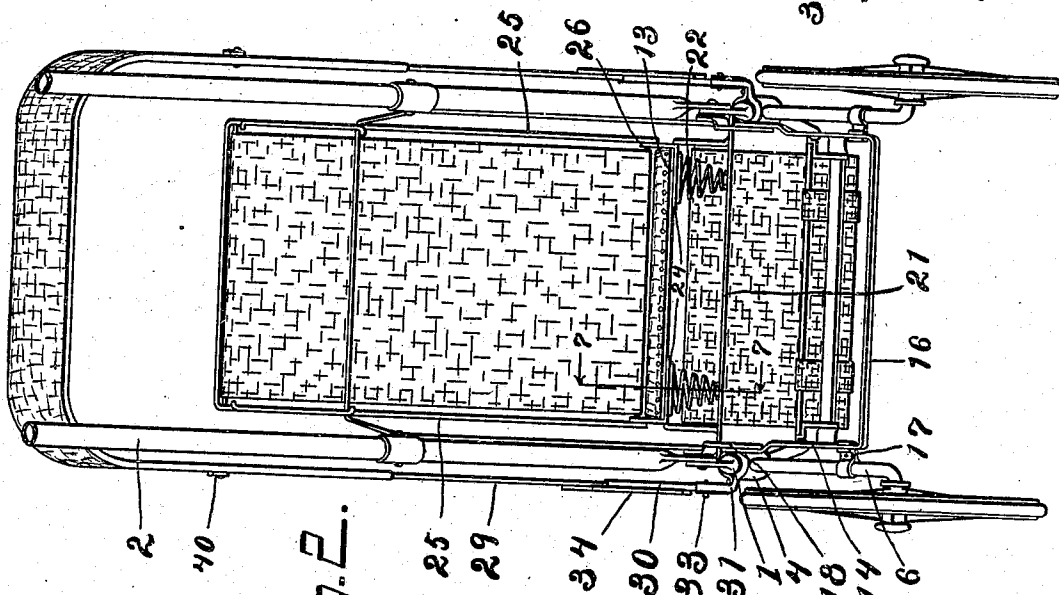
4 SHEETS—SHEET 2.



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4 SHEETS—SHEET 3.

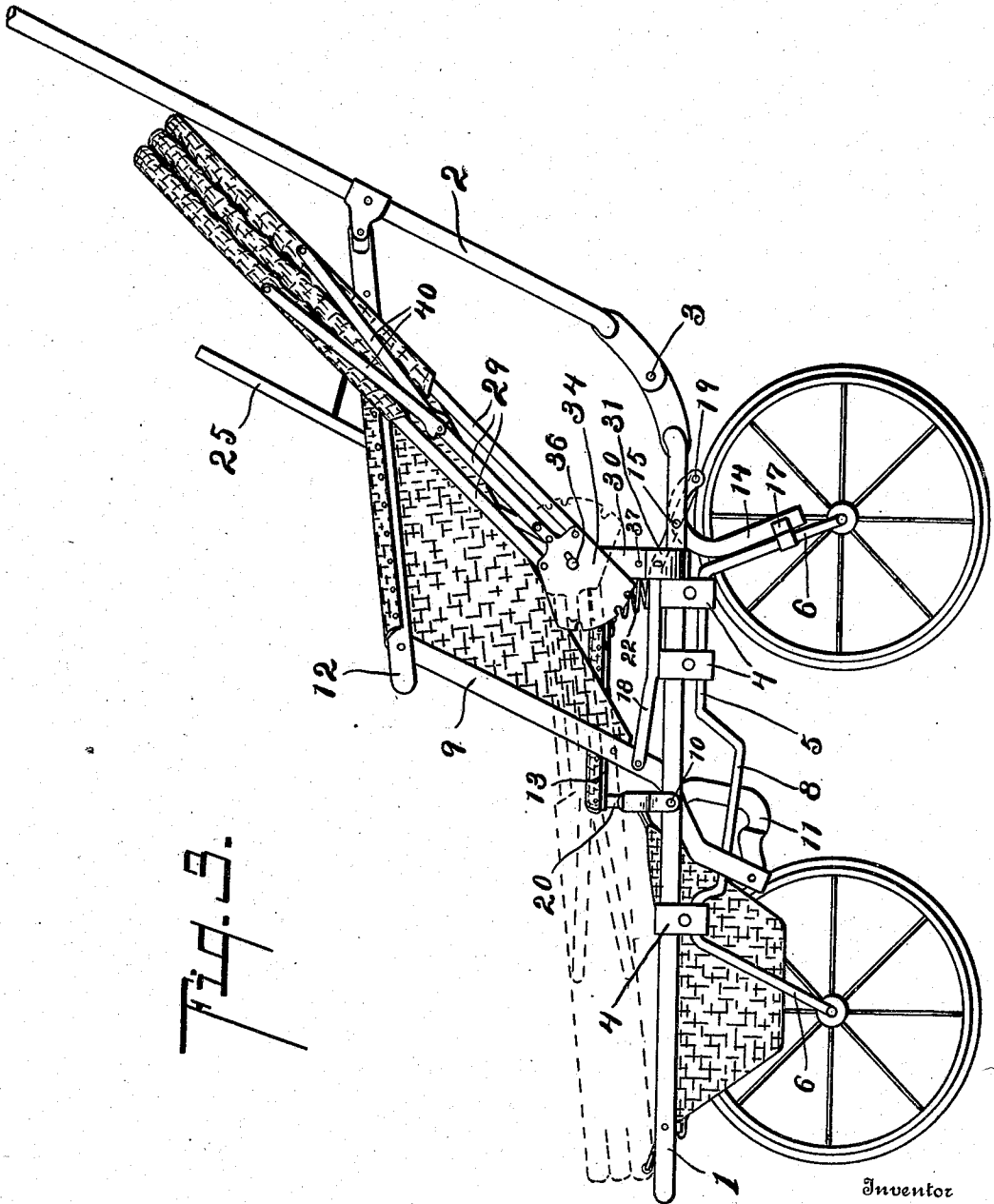


Fig. 3.

Witnesses

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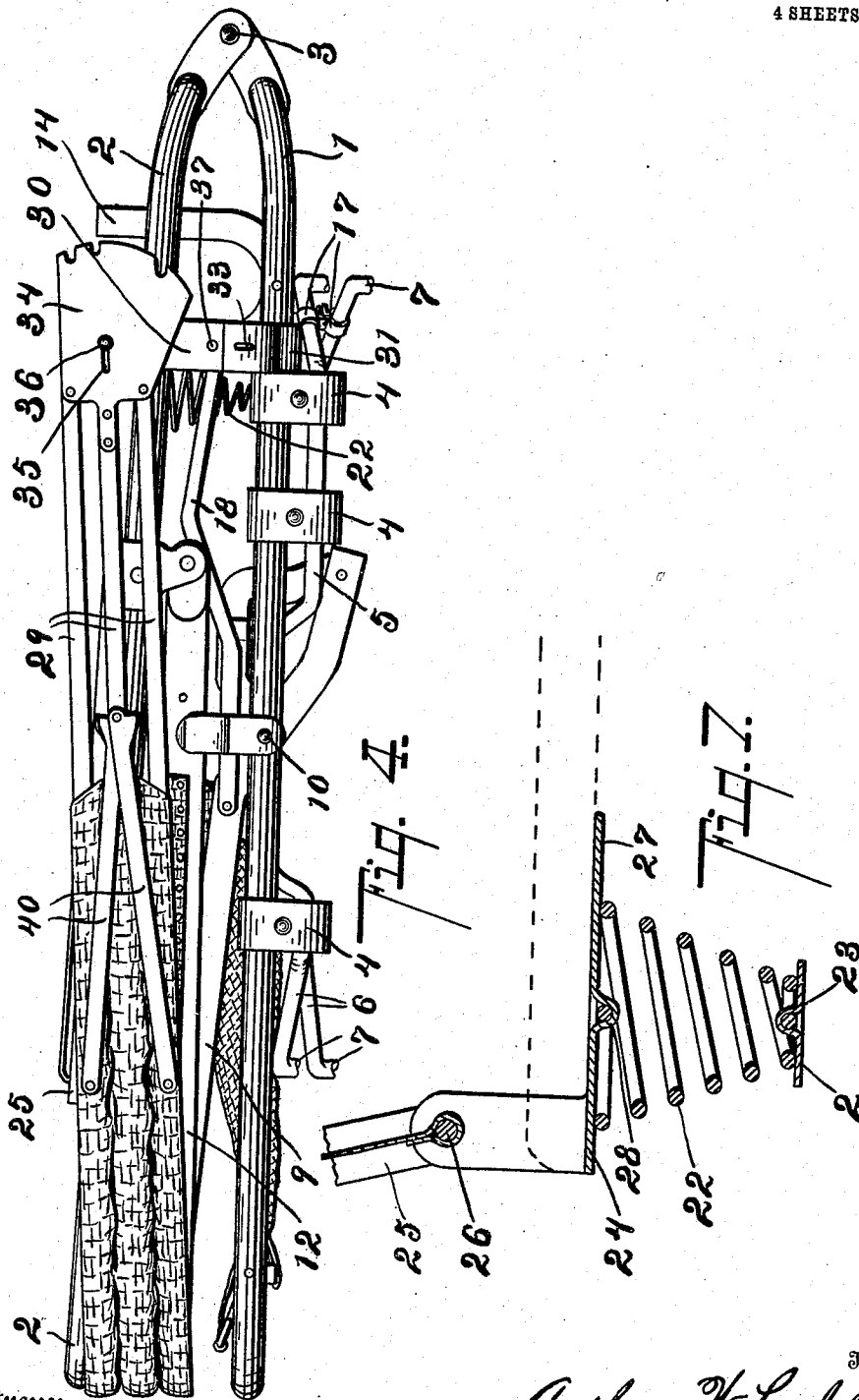
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4 SHEETS—SHEET 4.



Witnesses
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UNITED STATES PATENT OFFICE.

ANTHONY W. LOSHBOUGH, OF STURGIS, MICHIGAN, ASSIGNOR TO THE STURGIS STEEL
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FOLDING BABY-CARRIAGE.

941,374.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed November 5, 1907. Serial No. 400,782.

To all whom it may concern:

Be it known that I, ANTHONY W. LOSHBOUGH, citizen of the United States, residing at the city of Sturgis, county of St. Joseph, State of Michigan, have invented certain new and useful Improvements in Folding Baby-Carriages, of which the following is a specification.

This invention relates to improvements in baby carriages.

It relates particularly to improvements in folding baby carriages, and is especially designed and adapted for use on the folding baby carriage shown in Letters Patent No. 866,145, issued September 17, 1907, to Otto Kurz; and I have shown my improvements embodied in such a structure, although they are applicable for use in various other structures.

The main objects of this invention are: First, to provide an improved baby carriage of the folding or collapsible type with a folding or collapsible top, which may be conveniently adjusted and does not increase materially the bulk of the carriage when in its folded or collapsed position. Second, to provide in a folding baby carriage an improved combination brace and locking means for the wheel supports. Third, to provide in a baby carriage an improved seat support.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

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

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure 1 is a side elevation of a structure embodying the features of my invention, a portion of the handle being broken away; Fig. 2 is a rear elevation of the structure appearing in Fig. 1; Fig. 3 is a side elevation with the top in its collapsed position, the same being shown by full lines in its rearward position, and its forward position being indicated by dotted lines; Fig. 4 is a side elevation of the structure in its collapsed position, the wheels being broken away; Fig. 5 is an enlarged detail section,

taken on a line corresponding to line 5—5 of Fig. 1, showing details of the top support; Fig. 6 is an enlarged detail, taken on a line corresponding to line 6—6 of Fig. 5; and Fig. 7 is an enlarged detail of the spring support for the seat, taken on a line corresponding to line 7—7 of Fig. 2.

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

Referring to the drawing, 1 represents the running gear frame. The handle 2 is pivotally secured at the rear of the running gear frame by means of the pivots 3. On each of the side bars of the running gear frame are clip-like hangers 4 for the wheel supports 5. The wheel supports 5 are preferably formed of rods having downwardly-projecting wheel-carrying arms 6 with suitable journals, as 7, for the wheels. The wheel supports are pivotally supported on the hangers, so that they are free to swing therein to permit the wheels to be folded upon each other under the running gear frame.

The wheel supports 5 are provided with offsets forming crank-like arms 8, the offsets being preferably inclined downwardly toward the rear, as clearly appears from the drawing.

A pair of levers 9 is mounted on the side bars of the running gear frame by means of the pivots 10, the pivots being located above the offsets or arms 8 of the wheel supports. The lower ends of the levers project downwardly below and preferably on the outside of the arms 8 of the wheel supports, as clearly appears from the drawing. On the lower ends of the levers are loops 11 arranged to engage the arms 8, so that, when the levers are actuated, they serve to positively swing the wheel supports in and out to collapse or erect them. The levers 9 are preferably connected to the handle 2 to be actuated thereby, by links 12, the links being adapted to serve as side bars for the seat 13. These parts described are substantially the same as the corresponding parts of the patent hereinbefore referred to.

The wheel supports are locked and braced by means of the braces 14, pivoted on the running gear frame at 15. These braces are preferably bail-like in form, their lower ends

being connected by a suitable cross piece, as 16, which makes them more rigid and forms a very rigid brace for the wheel supports.

5 The arms 6 of the wheel supports are provided with fork-like clips 17, adapted to receive these braces when the wheel supports are in their erected or extended position. The upper ends of the braces 14 are preferably curved rearwardly and downwardly 10 beyond the pivots 15 thereof, and are connected by the links 18 to the wheel support actuating levers 9. These links are so arranged that, when the braces 14 are in position to engage the wheel supports, the 15 pivot connections 19 for the links to the braces are thrown below the pivots 15 for the braces to the running gear frame, so that they serve as an effective lock for the 20 levers, thus securely locking the carriage in its open or erected position, as well as bracing the wheel supports.

The cross piece 16 of the braces is, as will be observed, at the rear of the carriage, so 25 that it may be engaged by the foot of the operator to release the braces or push them into engaging position, thus forming a very effective and conveniently operated device.

The seat 13 is preferably supported at its 30 forward end on the bracket 20, the same being preferably mounted on the pivot 10 for the levers 9. Extending across the running gear frame, toward the rear thereof, is a cross piece 21. This cross piece is preferably formed of sheet metal and serves as 35 a brace for the running gear frame. The supporting springs 22 for the seat 13 are of the spiral type, and are mounted on this cross piece, the cross piece being provided 40 with a socket 23 to receive the lower end of the springs, as clearly appears in Fig. 7. This socket 23 is formed by punching up a part of the body of the cross piece.

The upper ends of the springs are connected 45 to the seat by means of the hinge members 24 for securing the back 25 of the seat to the rear end thereof. The back 25 is secured to the upwardly-projecting portion of the hinge members by means of the 50 pivot rod 26, the hinge members being provided with a horizontal portion 27, which extends under the seat, as clearly appears from the drawing. This horizontal portion is provided with a socket 28 to receive the 55 upper end of the spring 22, the socket being formed by punching down a portion of the metal,—it being formed of sheet metal, as is also the cross bar 21. Thus, by a very simple means, I secure the springs in position 60 and form an effective spring support for the seat.

I provide a top for my improved carriage, the top being of the bow-type, the bows 29 being arranged to embrace the side bars of 65 the seat, as clearly appears from the draw-

ings. The top is supported on brackets 30, projecting upwardly from the side pieces of the running gear frame. These brackets are preferably made up of two pieces, the part 31 being in the form of a clip to which the 70 other part is detachably secured by means of a socket 32 and a cotter pin 33, so that the top can be removed or replaced, as desired.

The carriage top bows 29 are secured to 75 segment plates 34, which are adjustably mounted on the brackets. This adjustment I preferably obtain by providing the plates with slots 35, which engage pins 36 on the brackets, the segment plates being adapted 80 to engage the pins 37 by which they are adjustably supported. The top illustrated is of the three bow type, the central bow being rigidly connected to the plates, while the outer bows are connected thereto by 85 means of the pivots 38, so that they may be swung together in collapsing the top. These outer bows are preferably provided with inwardly-projecting arms 39, which are adapted to engage the upper end of the 90 supporting bracket, so that, when the top is collapsed, the segment plate is lifted up, as is indicated by dotted lines in Fig. 6 to release or disengage the same from the pins 37, so that the top is free to be swung in either 95 direction,—either rearwardly against the handle, as is illustrated by full lines in Fig. 3,—or forwardly, as is illustrated by dotted lines in Fig. 3,—so that it rests upon the running gear frame. By this means, when 100 the top is collapsed, it is automatically released, so that the carriage may be collapsed without giving the top any further attention, the carriage collapsing readily with the top resting either against the handle or on 105 the running gear frame, as stated. The top is held in its extended position by means of the braces 40, which may be of the common type of carriage top braces.

By means of the segment supporting 110 plates for the top, it may be tilted, as desired, when opened; and, when collapsed, is, as stated, free to be swung to any position, thus forming not only a very secure support for the top, but one which is very convenient 115 in its adjustment. When the top is collapsed, the handle may be swung downwardly within the supporting brackets for the top,—as is illustrated in the drawing,—which makes a structure in which the 120 top does not add materially to the bulk of the device when it is collapsed.

The structure has the further advantage of being attractive and neat in appearance.

While I have illustrated the various parts 125 in detail in the form preferred by me on account of the structural simplicity and convenience in manipulating the same, I am aware that my improvement is capable of being considerably varied in structural de- 130

tails without departing from my invention, and I desire to be understood as claiming the same specifically, as illustrated, as well as broadly.

5 Divisional applications have been filed in which claims are made to the seat features and to the collapsing, erecting, bracing and locking features described, said divisional applications having been filed on June 18, 1908, Serial Numbers 439,175 and 439,176 respectively.

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

15 1. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame; levers pivoted on said frame, said levers being connected to said wheel supports where-
20 by said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; a pair of upwardly-projecting brackets on said
25 running gear frame; a pivot pin and a segment-engaging pin on each of said brackets; segment plates having slots therein adapted to receive said pivot pins and segments adapted to engage the said segment-engag-
30 ing pins, whereby said plates are adjustably secured to said brackets; top bows arranged to embrace the said side bars of said seat, a pair of said bows being pivoted to said plates and provided with projecting arms at their
35 lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position; and means for holding said bows in their extended position, said handle being adapted
40 to fold between said brackets and said top bows when the structure is collapsed.

2. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame;
45 levers pivoted on said frame, said levers being connected to said wheel supports whereby said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapt-
50 ed to serve as side bars for said seat; a pair of upwardly-projecting brackets on said running gear frame; a pivot pin and a segment-engaging pin on each of said brackets; segment plates having slots therein adapted
55 to receive said pivot pins and segments adapted to engage the said segment-engaging pins, whereby said plates are adjustably secured to said brackets; top bows, a pair of said bows being pivoted to said plates and
60 provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position; and means for holding said bows in their ex-
65 tended position.

3. The combination with the running gear frame, of a seat; a handle pivotally connected to said frame; a pair of upwardly-projecting brackets on said running gear frame; a pivot pin and a segment-engaging pin on
70 each of said brackets; segment plates having slots therein adapted to receive said pivot pins and segments adapted to engage the said segment-engaging pins, whereby said plates are adjustably secured to said brack-
75 ets; top bows, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out
80 of engaging position; and means for holding said bows in their extended position, said handle being adapted to fold between said brackets and said top bows when the structure is collapsed.

4. The combination with the running gear frame, of a seat; a handle pivotally connected to said frame; a pair of upwardly-projecting brackets on said running gear frame; a pivot pin and a segment-engaging pin on
90 each of said brackets; segment plates having slots therein adapted to receive said pivot pins and segments adapted to engage the said segment-engaging pins, whereby said plates are adjustably secured to said
95 brackets; top bows, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of
100 engaging position; and means for holding said bows in their extended position.

5. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame;
105 levers pivoted on said frame, said levers being connected to said wheel supports whereby said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapt-
110 ed to serve as side bars for said seat; a pair of upwardly-projecting brackets on said running gear frame; segment plates adjustably secured to said brackets; top bows arranged to embrace the said side bars of said seat, a
115 pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging posi-
120 tion; and means for holding said bows in their extended position, said handle being adapted to fold between said brackets and said top bows when the structure is collapsed.

6. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame;
125 levers pivoted on said frame, said levers being connected to said wheel supports where-
130 by said wheel supports are erected or col-

- lapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; a pair of upwardly-projecting brackets on said running gear frame; segment plates adjustably secured to said brackets; top bows, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position; and means for holding said bows in their extended position.
7. The combination with the running gear frame, of a seat; a handle pivotally connected to said frame; a pair of upwardly-projecting brackets on said running gear frame; segment plates adjustably secured to said brackets; top bows, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position; and means for holding said bows in their extended position, said handle being adapted to fold between said brackets and said top bows when the structure is collapsed.
8. The combination with the running gear frame, of a seat; a pair of upwardly-projecting brackets on said running gear frame; segment plates adjustably secured to said brackets; top bows, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position; and means for holding said bows in their extended position.
9. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame to fold thereon; levers pivoted on said frame, said levers being connected to said wheel supports, whereby said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; top bows arranged to embrace the said side bars of said seat; adjustably mounted segments on which said bows are collapsibly mounted; and means for automatically freeing said segments on the collapsing of the bows, said handle being adapted to fold between said top bows when the structure is collapsed.
10. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame to fold thereon; levers pivoted on said frame, said levers being connected to said wheel supports, whereby said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; top bows; adjustably mounted segments on which said bows are collapsibly mounted; and means for automatically freeing said segments on the collapsing of the bows.
11. The combination with the running gear frame, of a seat; a handle pivotally connected to said frame to fold thereon; top bows; adjustably mounted segments on which said bows are collapsibly mounted; and means for automatically freeing said segments on the collapsing of the bows, said handle being adapted to fold between said top bows when the structure is collapsed.
12. The combination with the running gear frame, of a seat; top bows; adjustably mounted segments on which said bows are collapsibly mounted; and means for automatically freeing said segments on the collapsing of the bows.
13. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame to fold thereon; levers pivoted on said frame, said levers being connected to said wheel supports, whereby said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; top bows arranged to embrace the said side bars of said seat; pivoted supporting members for said bows on which they are collapsibly mounted; means for holding said bow supporting members in position; and means for automatically freeing said members on the collapsing of the bows, said handle being adapted to fold between said top bows when the structure is collapsed.
14. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame to fold thereon; levers pivoted on said frame, said levers being connected to said wheel supports, whereby said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; top bows; pivoted supporting members for said bows on which they are collapsibly mounted; means for holding said bow supporting members in position; and means for automatically freeing said members on the collapsing of the bows.
15. The combination with the running gear frame, of a seat; side bars for said seat; a handle pivotally connected to said frame to fold thereon; top bows arranged to embrace the said side bars of said seat; pivoted supporting members for said bows on which they are collapsibly mounted; means for holding said bow supporting members in position; and means for automatically freeing said members on the collapsing of the bows.
16. The combination with the running

gear frame, of a seat; top bows; pivoted supporting members for said bows on which they are collapsibly mounted; means for holding said bow supporting members in position; and means for automatically freeing said members on the collapsing of the bows.

17. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame to fold thereon; levers pivoted on said frame, said levers being connected to said wheel supports, whereby said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; top bows arranged to embrace the said side bars of said seat; pivoted supporting members for said bows on which they are collapsibly mounted; means for holding said bow supporting members adjustably in position, said handle being adapted to fold between said top bows when the structure is collapsed.

18. The combination with the running gear frame, of a seat; a handle pivotally connected to said frame to fold thereon; top bows; pivoted supporting members for said bows on which they are collapsibly mounted; means for holding said bow supporting members in position; and means for automatically freeing said members on the collapsing of the bows, said handle being adapted to fold between said top bows when the structure is collapsed.

19. The combination with the running gear frame, of a seat; a handle connected to said frame to fold thereon; top bows; an adjustable support therefor on which said bows are collapsibly mounted; means for securing said bow supporting members in position; and means for automatically freeing said bow supporting members on the collapsing of the bows.

20. The combination with a seat, of a collapsible top; means for adjustably supporting said top comprising a pair of coacting engaging members; and connections for said top to one of said members arranged so that said member is moved into and out of its engaging position on the expanding and collapsing of the top, respectively.

21. The combination with a seat, of a collapsible top; means for supporting said top comprising a pair of coacting engaging members; and connections for one of said members to said top arranged so that the member is moved into its engaging position on the expanding of the top.

22. The combination with a seat, of a collapsible top; means for adjustably support-

ing said top comprising a pair of coacting members; and connections for said top to one of said engaging members arranged so that said members are disengaged upon the collapsing of the top.

23. The combination with a seat, of a top; means for adjustably supporting said top comprising a segment member and a coacting engaging member, said segment member and its coacting engaging member having a pin and slot connection; and means for disengaging and holding said segment member and its said coacting engaging member out of their engaging position.

24. The combination with a seat, of a top; means for adjustably supporting said top comprising a segment member and a coacting engaging member, said segment member and its coacting engaging member having a slip connection; and means for disengaging and holding said segment member and its said coacting engaging member out of their engaging position.

25. The combination with the running gear frame, of a seat; a handle pivotally connected to said frame to fold thereon; top bows; an adjustable support for said top bows comprising a segment member and a coacting engaging member, said members having a slip connection; and means for adjusting said members in their said slip connection whereby the segment member and the said engaging member are held out of engagement to permit the folding of the top and the said handle upon the running gear frame.

26. The combination with a seat, of a top comprising collapsible top members; means for adjustably supporting said top, comprising a pair of coacting engaging members having a slip connection whereby they may be adjusted to and from engaging position; and a member for adjusting said engaging members in their said slip connection, connected to said top members to be actuated by the erecting and collapsing thereof.

27. The combination with a seat, of a top; means for supporting said top, comprising a pair of coacting engaging members having a pin and slot connection; and means for adjusting said members in their said connection whereby they are automatically held out of engagement to permit the free pivotal movement of the top.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

ANTHONY W. LOSHBOUGH. [L. S.]

Witnesses:

JERROLD F. WALTON,
THOS. J. COLLINS.