

No. 751,843.

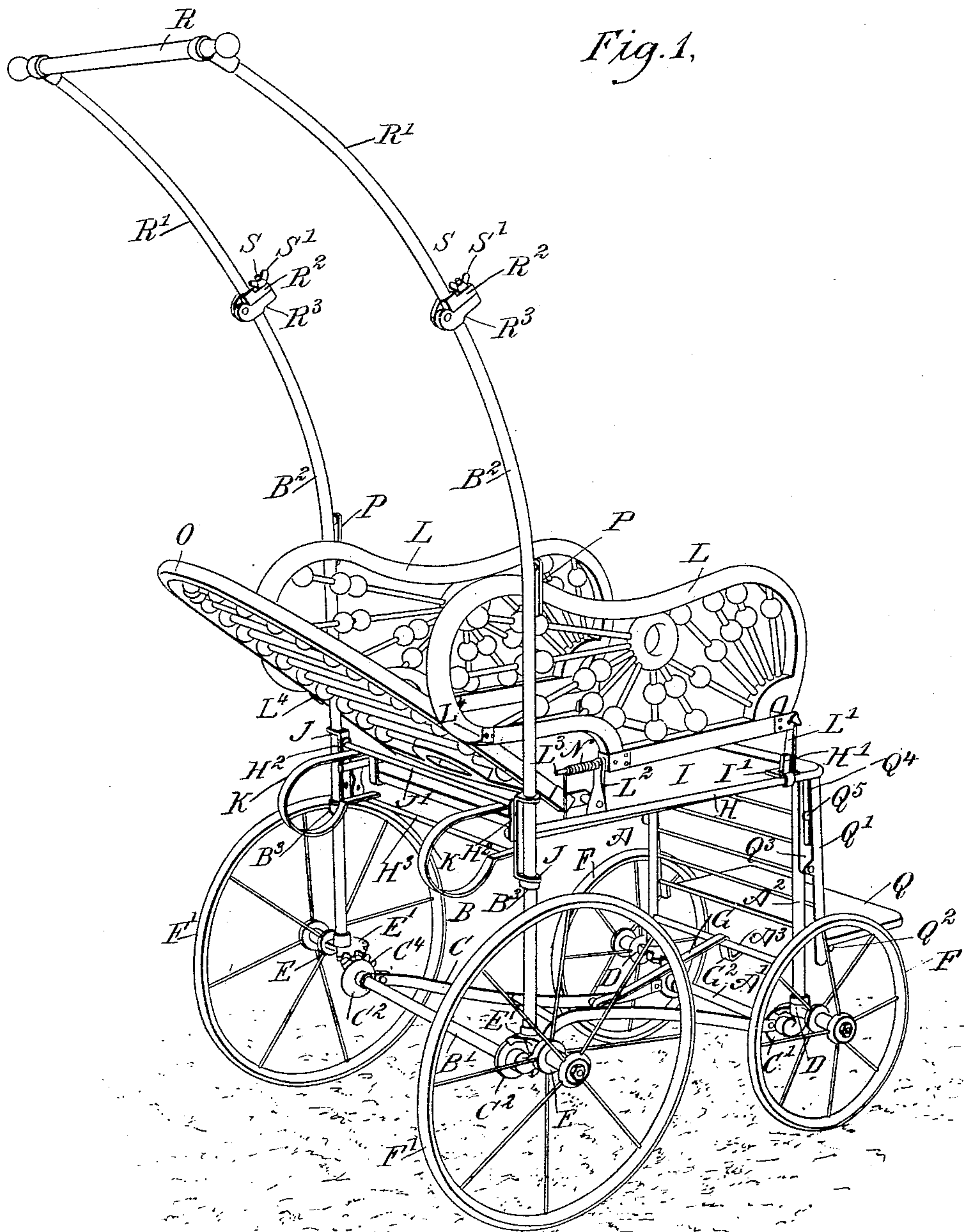
PATENTED FEB. 9, 1904.

C. E. FANNING.  
FOLDING VEHICLE.

APPLICATION FILED JAN. 28, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



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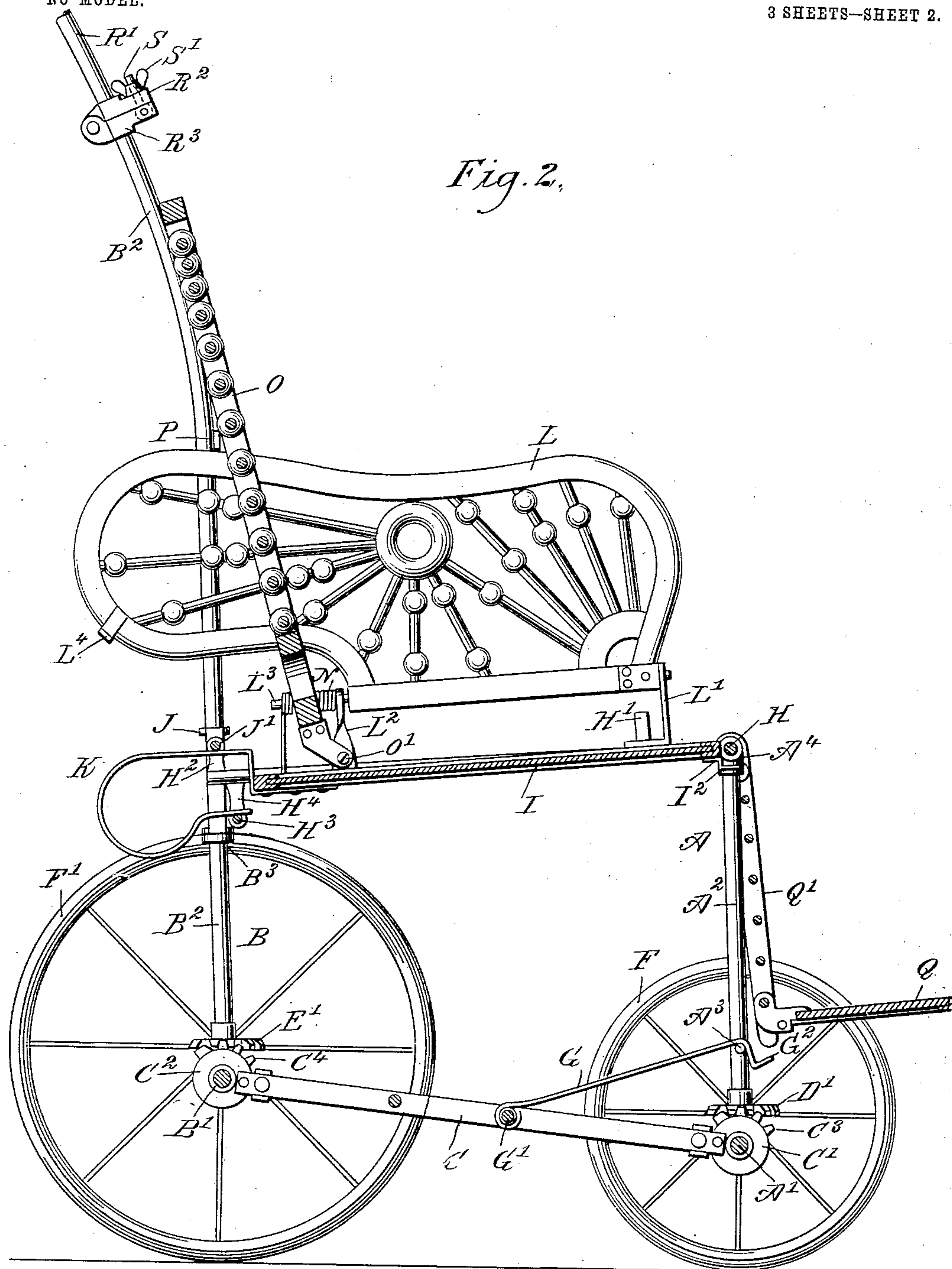
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3 SHEETS—SHEET 2.

NO MODEL.



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3 SHEETS—SHEET 3.

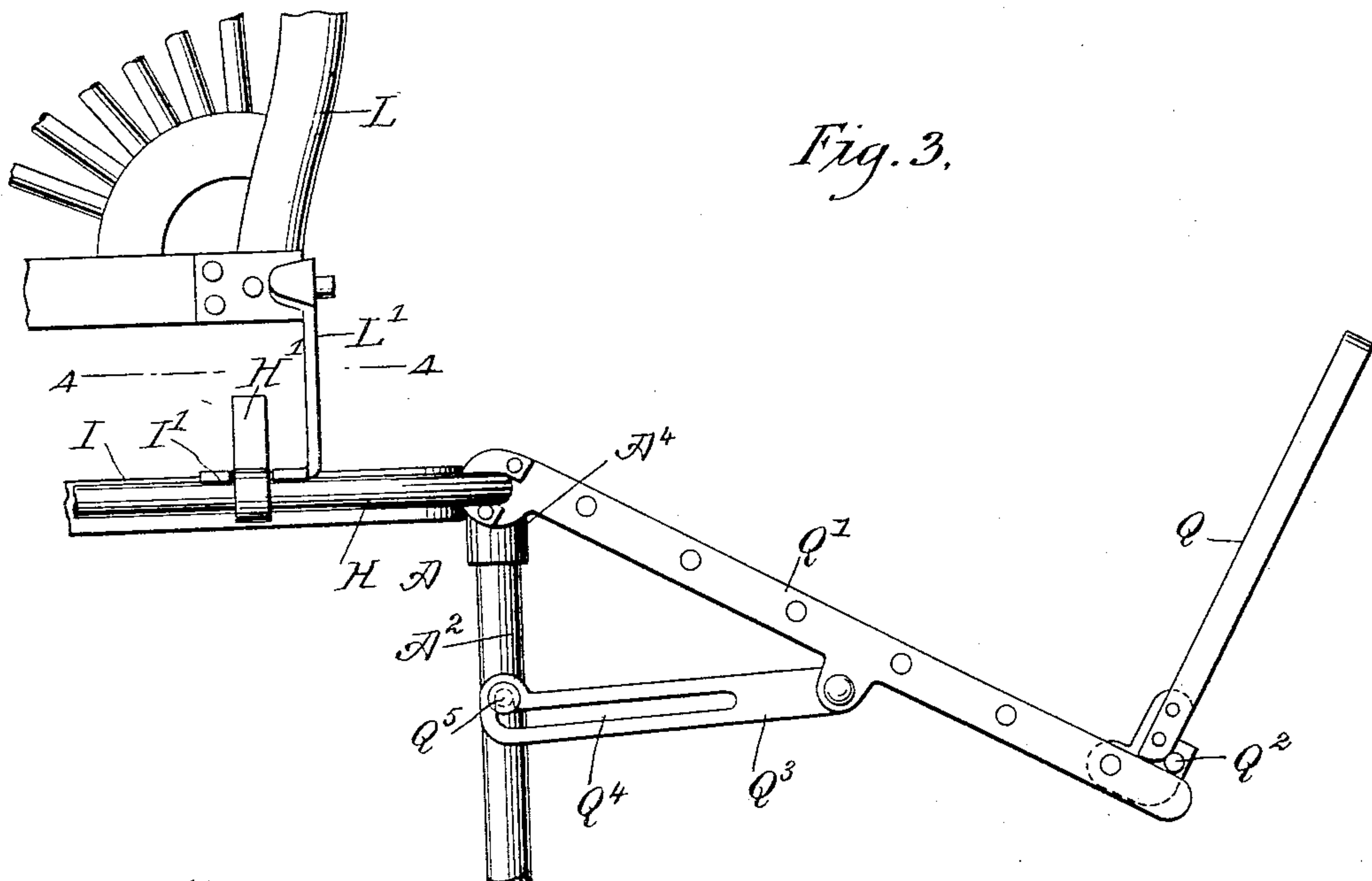


Fig. 3.

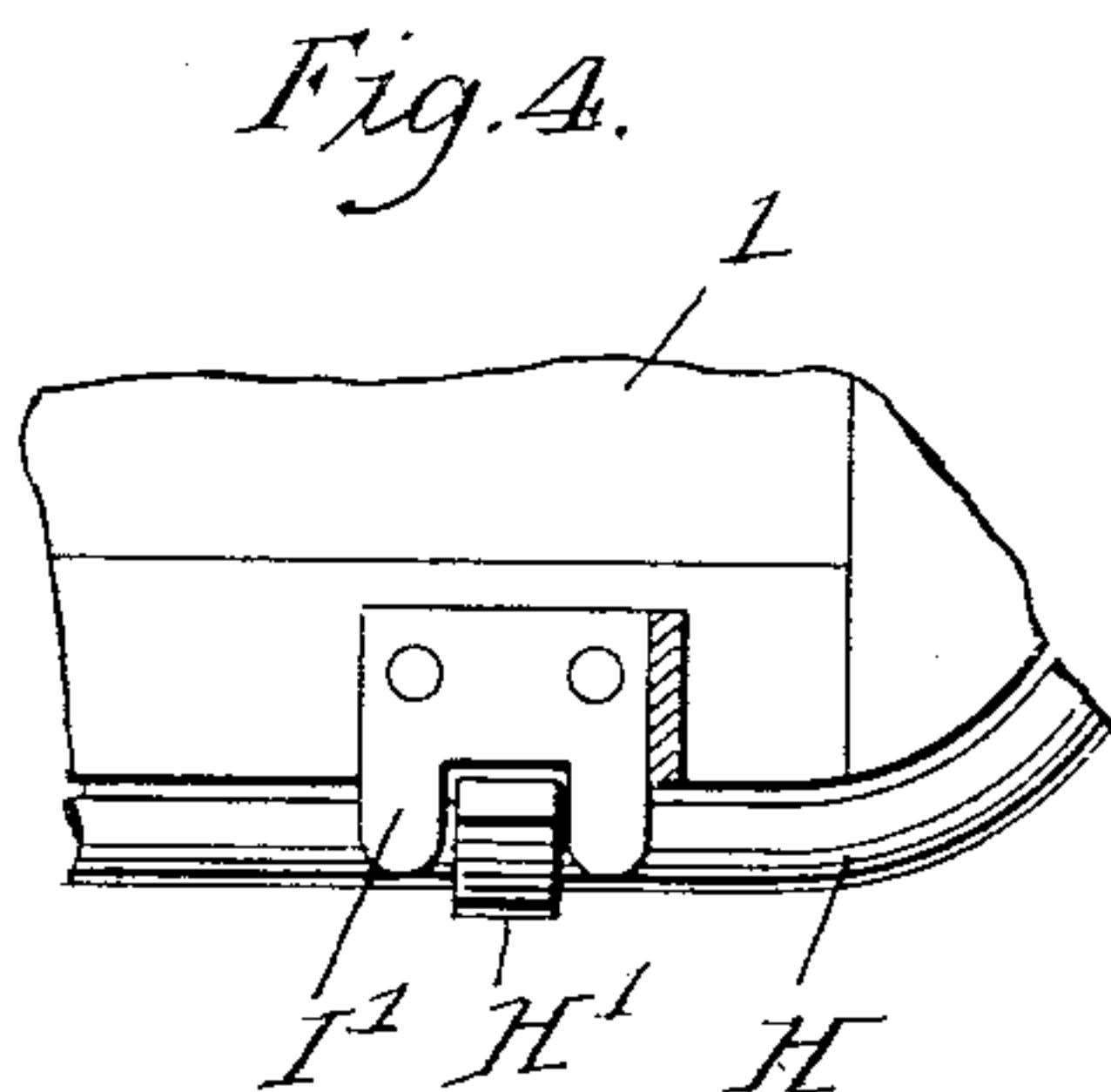


Fig. 4.

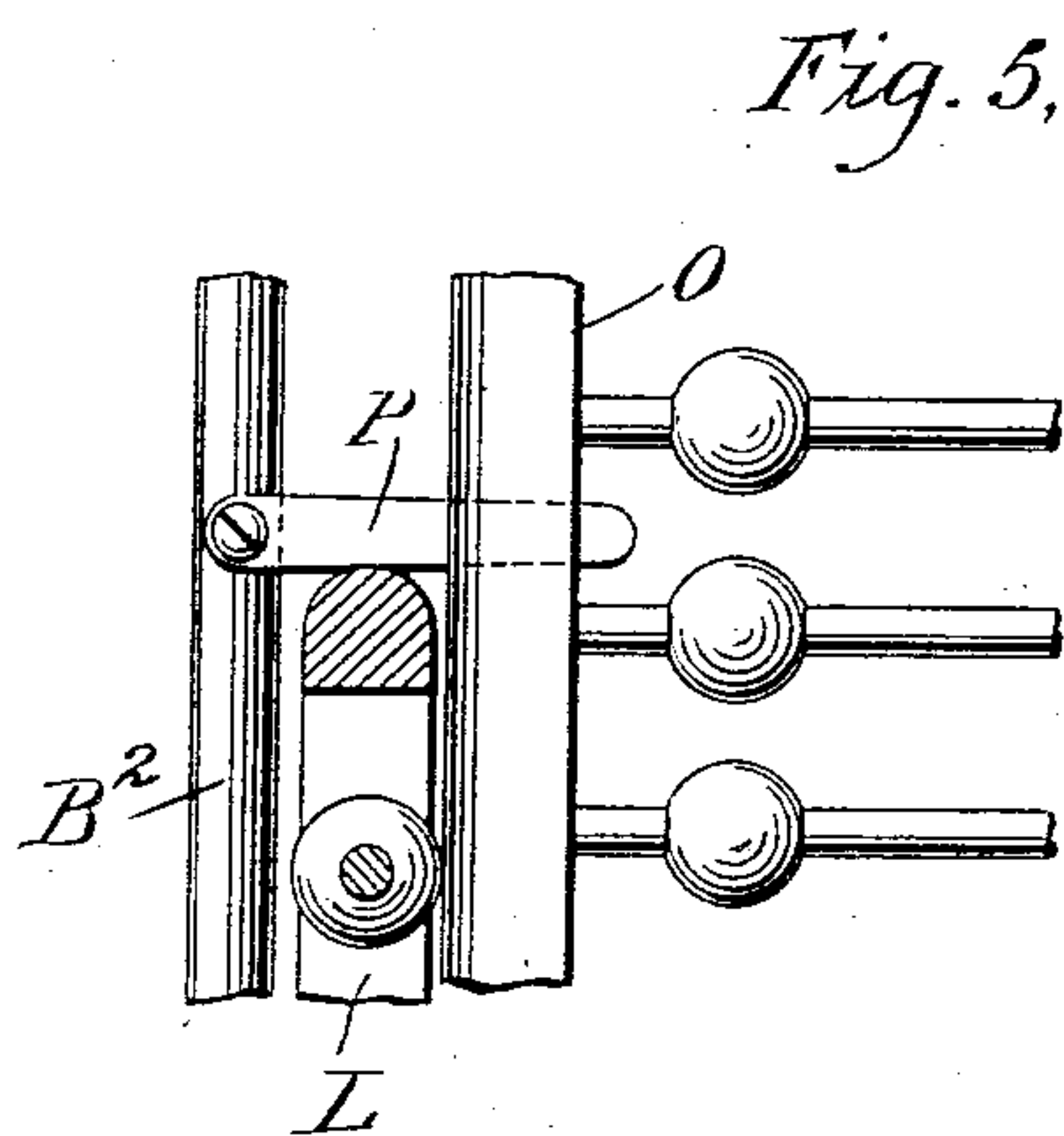


Fig. 5.

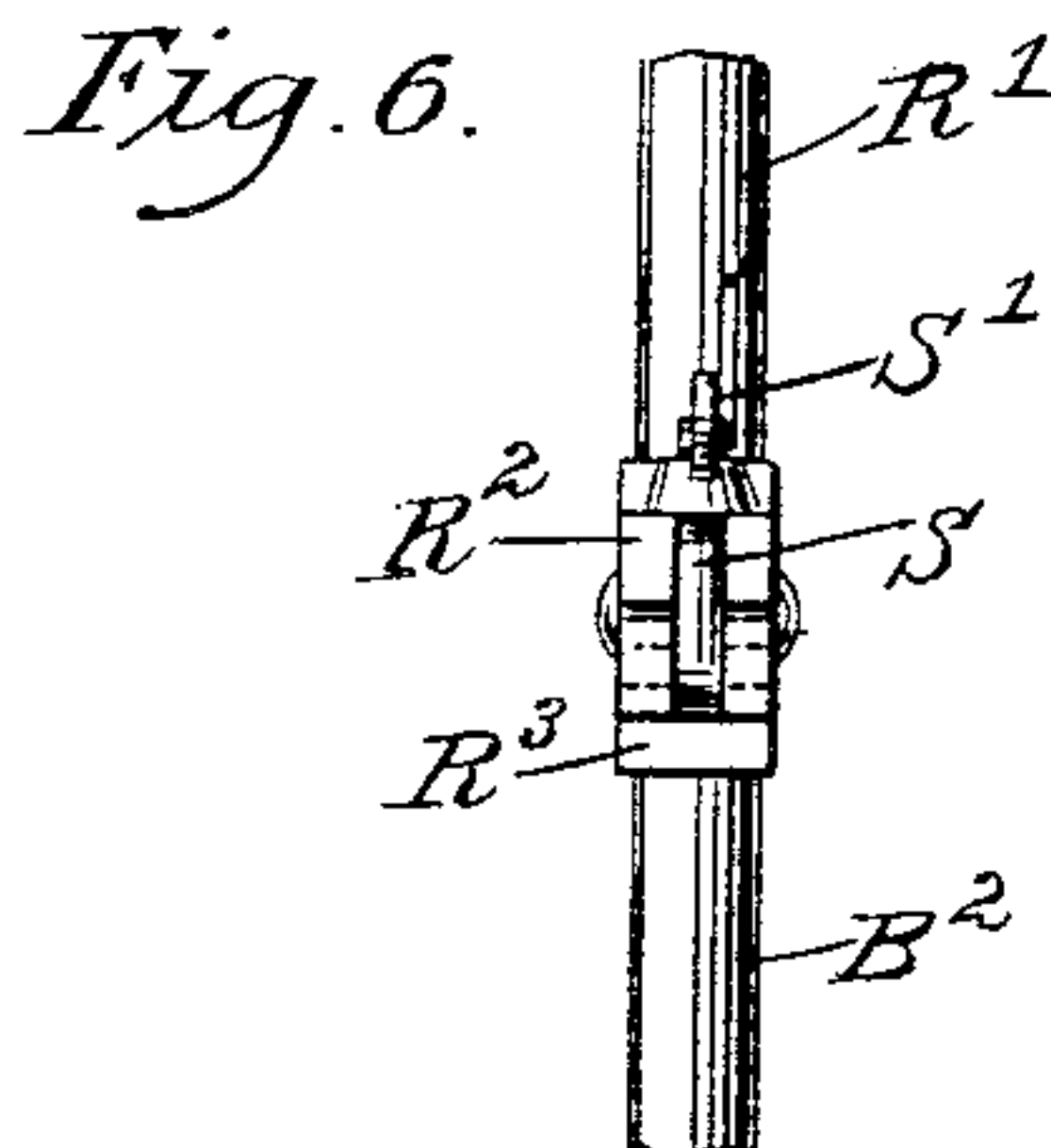


Fig. 6.

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# UNITED STATES PATENT OFFICE.

CHARLES EDWARD FANNING, OF DAVENPORT, IOWA, ASSIGNOR TO  
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## FOLDING VEHICLE.

SPECIFICATION forming part of Letters Patent No. 751,843, dated February 9, 1904.

Application filed January 28, 1903. Serial No. 140,869. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES EDWARD FANNING, a citizen of the United States, and a resident of Davenport, in the county of Scott and State of Iowa, have invented a new and Improved Folding Vehicle, of which the following is a full, clear, and exact description.

The invention relates to folding carriages, such as shown and described in the Letters Patent of the United States No. 697,333, granted to me April 8, 1902.

The object of the present invention is to provide certain new and useful improvements in folding baby-carriages whereby the carriage can be readily changed from a folded to an extended or set-up position, and vice versa, and when set up for use is exceedingly strong and durable and not liable to accidentally close or collapse.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement in an extended position. Fig. 2 is a longitudinal sectional elevation of the same. Fig. 3 is an enlarged side elevation of the front portion of the seat and the foot-rest. Fig. 4 is a sectional plan view of part of the same on the line 4-4 of Fig. 3. Fig. 5 is an enlarged transverse section of the improvement, showing the retaining-stop in position for supporting the seat-back; and Fig. 6 is a front elevation of the locking device for the handle.

The front seat-supporting frame A and the rear seat-supporting frame B have their bottom bars A' and B' pivotally connected with each other by a reach C, provided at its bearings C' C<sup>2</sup> with bevel gear-wheels C<sup>3</sup> C<sup>4</sup>, in mesh with bevel gear-wheels D' and E', respectively, formed on front and rear axle-carriers D and E, mounted to swing on the lower ends of the side bars A<sup>2</sup> A<sup>2</sup> of the seat-supporting frames A and B, the said axle-car-

riers carrying front and rear wheels F and F', and when the operator swings the front supporting-frame upward then the reach C turns with its bearings C' and C<sup>2</sup> on the bars A' and B', and consequently the bevel gear-wheels C<sup>3</sup> and C<sup>4</sup> turn the bevel gear-wheels D' and E' to impart a turning motion to the axle-carriers D and E, so that the wheels F and F' are swung inward toward each other, and when the carriage is extended from the folded position back into the position shown in Figs. 1 and 2 then the downward movement of the front seat-supporting frame A causes the bevel gear-wheels C<sup>3</sup> and C<sup>4</sup> of the reach C to turn in a reverse direction, whereby the gear-wheels D' and E' are turned, and with them the axle-carriers D and E, to swing the wheels F and F' into an outward position.

The foregoing construction is approximately the same as the one shown and described in the Letters Patent above referred to, so that further detailed description of the same is not deemed necessary.

In order to lock the vehicle in an extended position, a locking-bar G is provided extending longitudinally and fulcrumed at its rear end on a cross-bar G', held on the reach C, so that the bar G can swing up and down, and the forward end of the said locking-bar G is provided with a handled hook G<sup>2</sup>, adapted to engage a cross-bar A<sup>3</sup>, held on the side bars A<sup>2</sup> of the front seat-supporting frame A, the said cross-bar A<sup>3</sup> being located a suitable distance above the lower cross-bar A', so that the locking-bar G stands in an angular position relative to the reach C when its hook G<sup>2</sup> engages the cross-bar A<sup>3</sup>. Thus the locking-bar G when engaging the said cross-bar A<sup>3</sup> prevents the reach C from turning on the bottom cross-bar A', and consequently the reach C is held in a locked position relative to the front seat-supporting frame A and the rear seat-supporting frame B.

The upper ends of the side bars A<sup>2</sup> of the front seat-supporting frame A are provided with bearings A<sup>4</sup>, in which is mounted to turn the front cross-bar of a seat-frame H, approximately of rectangular shape and containing in its opening a seat I, made of wood or other



suitable material. The rear ends of the sides of the seat-frame H are provided with upwardly-extending lugs  $H^2$ , fulcrumed on the cross-bar  $J'$  of slides J, mounted to move up and down on the side bars  $B^2$  of the rear seat-supporting frame B. When the carriage is extended, then the lower ends of the connected slides J rest on collars  $B^3$ , formed or secured on the side bars  $B^2$  of the rear seat-supporting frame B.

The seat I, previously mentioned, is provided on its sides near the front end of the seat (see Figs. 3 and 4) with guideways  $I'$ , engaging lugs  $H'$ , extending upwardly from the sides of the seat-frame H, so that the forward end of the seat I is hung on the seat-frame H, and the connection described is sufficiently free to allow the rear of the seat I to swing up and down.

The rear end of the seat I is provided with longitudinally-extending springs K, resting at their free ends on the rear cross-bar  $H^3$  of the seat-frame H, the said cross-bar  $H^3$  being supported in lugs  $H^4$ , depending from the rear ends of the sides of the seat-frame H, so as to swing the cross-bar  $H^3$  a desired distance below the sides of the seat-frame H. Now when the seat I is occupied it is evident that easy riding is insured, as that portion of the seat I receiving most of the weight of the occupant is spring-supported. The slides J are provided to permit of moving the same upward, and with them the rear portion of the seat-frame H and springs K, so as to allow a close folding of the rear wheels  $F'$ , as previously explained, without striking the springs K.

In order to prevent the front end of the seat I from accidentally moving upward I provide the forward end of the seat I with lugs  $I^2$ , extending forwardly under the front cross-bar of the seat-frame H. The sides L for the seat I are hinged on brackets  $L'$  and  $L^2$ , extending upwardly from the seat I, and the rear pivots  $L^3$  of the sides L are pressed on by a torsion-spring N to close the said sides onto the top of a folding back O, fulcrumed at  $O'$  on the brackets  $L^2$  and adapted to fold directly onto the top of the seat I. The rear ends of the sides L are provided with stops  $L^4$  for the back O to rest against when it is desired to give the back a considerable rearward inclination; but the said back can also be held in nearly a vertical position by lugs P, fulcrumed on the side bars  $B^2$  of the rear seat-supporting frame and adapted to be swung up into the path of the seat I when the latter is swung upward and rearward, the said lugs P then resting on the top of the sides L, as plainly indicated in Figs. 2 and 5.

A foot-rest Q is pivoted on the lower end of a frame  $O'$ , fulcrumed at its upper end on the front cross-bar of the seat-frame H, and the said foot-rest Q is held in a right-angular position relative to the frame  $Q'$  by the foot-rest abutting against stop-pins  $Q^2$ , secured on the

said frame  $Q'$  and extending transversely, as indicated in Figs. 1 and 3.

The frame  $Q'$  is adapted to be held in an angular position relative to the front seat-supporting frame A, and for this purpose the frame  $Q'$  is provided with links  $Q^3$ , having bayonet-slots  $Q^4$ , engaging pins  $Q^5$ , projecting transversely from the side bars  $A^2$  of the front seat-supporting frame A. When the several parts are in the position shown in Fig. 3, then the pins  $Q^5$  are engaged by the angular portions of the bayonet-slots  $Q^4$ , so that the links  $Q^3$  are held against closing, and consequently the frame  $Q'$  is securely held in an angular position relative to the front seat-supporting frame A. When it is desired to move the frame  $Q'$  in an approximately vertical position, it is only necessary for the operator to swing the links  $Q^3$  upward to engage the longitudinal portions of the bayonet-slots with the pins  $Q^5$  to allow closing the links by swinging the frame  $Q'$  downwardly and rearwardly to the position shown in Figs. 1 and 2. In folding the carriage the frame  $Q'$  is moved in this position, and then the foot-rest Q is swung upwardly against the frame, so that the several parts occupy comparatively little room.

A handle R for moving the vehicle about is provided with side arms  $R'$ , which have a forwardly-extending lug  $R^2$ , pivotally connected with a similar lug  $R^3$ , secured on the upper end of the corresponding side bar  $B^2$  of the rear seat-supporting frame B. An eyebolt S is fulcrumed on the lug  $R^3$  and is adapted to swing into a slot in the forward end of the lug  $R^2$ , so that the wing-nut  $S'$  of the said bolt can be readily screwed down onto the top of the lug  $R^2$  by the operator to securely lock the two lugs  $R^2$  and  $R^3$  together, and thereby hold the handle in an extended position on the side bars  $B^2$  of the rear seat-supporting frame B. (See Figs. 1 and 6.) When it is desired to fold the handle, the wing-nuts  $S'$  are partly unscrewed, and then the bolts are swung out of engagement with the lugs  $R^2$  to allow of swinging the lugs  $R^2$ , and consequently the handle, downward onto the lugs  $R^3$  into a folded position.

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

1. A folding vehicle comprising a front seat-supporting frame having side bars, a rear seat-supporting frame, a reach pivotally connecting the said frames with each other, front and rear axle-carriers mounted to swing on the said frames and controlled by the said reach, wheels journaled on the said axle-carriers, a seat supported on the said frames, a cross-bar held on the reach and a locking device under the control of the operator, comprising an arm fulcrumed on the cross-bar of the reach and a cross-bar held on the side bars of the front seat-supporting frame, and adapted to be engaged by the said arm, as set forth.



2. A folding vehicle comprising a front seat-supporting frame having side bars, a rear seat-supporting frame, a reach pivotally connecting the said frames with each other, front and rear axle-carriers mounted to swing on the said frames and controlled by the said reach, wheels journaled on the said axle-carriers, a seat supported on the said frames, a cross-bar connecting the members of the reach and a locking device under the control of the operator, comprising an arm fulcrumed at its rear end on the said cross-bar of the reach, to swing up and down, the free forward end of the said arm having a hook, and a cross-bar connecting the side bars of the front seat-supporting frame, and adapted to be engaged by the said hook, as set forth.

3. A folding vehicle having a locking device for a reach and a front seat-supporting frame, comprising a hook-arm fulcrumed on the reach, and a cross-bar on the said front supporting-frame, adapted to be engaged by the hook end of the said hook-arm, as set forth.

4. A folding vehicle having a locking device for a reach, and a front seat-supporting frame, comprising a hook-arm fulcrumed on the reach, and a cross-bar on the said front supporting-frame, adapted to be engaged by the hook end of the said hook-arm, the latter being arranged to swing up and down and the hook end of the hook-arm being provided with a handle, as set forth.

5. A folding vehicle comprising a front seat-supporting frame, a rear seat-supporting frame, a reach pivotally connecting the frames with each other, front and rear axle-carriers mounted to swing on the said frames and controlled by the said reach, a seat-frame mounted to swing on the said seat-supporting frames, a seat provided on its sides near the front end with guideways, lugs extending upward from the sides of the said seat-frame and engaging said guideways, and springs interposed between the rear portion of the seat and the rear portion of the said seat-frame, as set forth.

6. A folding vehicle comprising a front seat-supporting frame, a rear seat-supporting frame, a reach pivotally connecting the frames with each other, front and rear axle-carriers mounted to swing on the said frames and controlled by the said reach, a seat-frame mounted to swing on the said seat-supporting frames, a seat having guideways at its sides near the front end resting on the seat-frame, lugs on the seat-frame engaging the guideways, springs interposed between the rear portion of the seat and the rear portion of the said seat-frame, and retaining-lugs on the front portion of the said seat, extending forwardly under the front cross-bar of the said seat-frame, to prevent the seat from disengaging the seat-frame, as set forth.

7. A folding vehicle having a front seat-supporting frame, a rear seat-supporting frame, a seat-frame pivotally connected at its

front end with the said front seat-supporting frame, a seat held in the seat-frame, springs connected with the rear portion of the seat and supported by the seat-frame and movable therewith, and connected slides vertically movable on the rear seat-supporting frame and to which the rear end of the seat-frame is pivotally connected, whereby when the said slides are moved upward, in folding the vehicle, they will carry with them the rear portion of the seat-frame and the said springs, for the purpose set forth.

8. A folding vehicle having a front seat-supporting frame, a rear seat-supporting frame, a seat-frame fulcrumed on the said front seat-supporting frame, a seat supported at its front portion by the said seat-frame, and longitudinally-extending springs connected at one end with the rear portion of the seat and engaging with their free ends a cross-bar on the seat-frame, as set forth.

9. A folding vehicle having a front seat-supporting frame, a rear seat-supporting frame provided with a slide, a seat-frame fulcrumed on the said front seat-supporting frame and on the slide of the said rear supporting-frame, lugs depending from the rear ends of the sides of the seat-frame, a cross-bar supported in said lugs, a seat arranged to swing with its front portion in the said seat-frame, and springs connected at one end with the rear portion of the seat and engaging with their other ends the rear cross-bar of the seat-frame, as set forth.

10. A folding vehicle having a front seat-supporting frame, a rear seat-supporting frame provided with side bars, slides mounted to move up and down on the said side bars and connected by a cross-bar, a seat-frame fulcrumed at its front end on the front seat-supporting frame and provided at its rear ends with upwardly-extending lugs fulcrumed on the cross-bar of the slides, a seat free to swing in the said seat-frame, the front portion of the seat being hung on the seat-frame, and springs interposed between the rear of the seat and the rear of the seat-frame, as set forth.

11. A folding vehicle having a seat-frame provided with rising lugs on the sides near the front thereof, a seat free to swing within the said seat-frame and having guideways projecting laterally from the sides of the seat and engaging the said lugs, a cross-bar supported in lugs on the rear of the seat-frame, and springs secured at one end on the rear of the seat and resting with their free ends on the rear cross-bar of the seat-frame, as set forth.

12. A folding vehicle having a front seat-supporting frame, a rear seat-supporting frame provided with side bars, slides mounted to move up and down on the said side bars and connected by a cross-bar, a seat-frame fulcrumed at its front end on the front seat-supporting frame and at its rear end on the cross-bar of the slides, a seat supported at its



front portion by the said seat-frame, and springs connected at one end with the rear portion of the seat the other ends of the springs being supported by the rear portion 5 of the seat-frame, whereby the said slides when moved upward in folding the vehicle will carry with them the rear portion of the seat-frame and the said springs, as set forth.

13. A folding vehicle having a front seat- 10 supporting frame, a rear seat-supporting frame provided with side bars, a seat supported on the said frames, a back fulcrumed on the said seat, seat sides pivoted on the said seat and provided at their rear ends with stops 15 for the said back to rest on when in its rearmost inclined position, and lugs fulcrumed on the side bars of said rear seat-supporting frame, to hold the said back in a nearly vertical position, as set forth.

20 14. A folding vehicle having a front seat-supporting frame, a rear seat-supporting frame provided with upwardly-extending side bars, a seat supported on the said frames, a back fulcrumed on the said seat, seat sides 25 pivoted on the said seat and provided at their ends with stops for the said back to rest on when the back is in its rearmost inclined po-

sition, and adjustable stops on the upwardly-extending side bars of said rear seat-supporting frame, to hold the said back in a nearly 30 vertical position, the said adjustable stops being fulcrumed on the said side bars of the rear seat-supporting frame and being adapted to rest on the top edges of the said sides, as set forth. 35

15. A folding vehicle having a handle made in sections, the sections being provided with lugs projecting at the front and rear of the same and hinged together at one end the lugs being adapted to abut against each other when 40 the handle is extended and a lock for the other end of said lugs to hold the sections in an extended position, the lock consisting of a bolt pivoted on the free end of one lug and engaging a slot in the free end of the other 45 lug, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES EDWARD FANNING.

Witnesses:

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