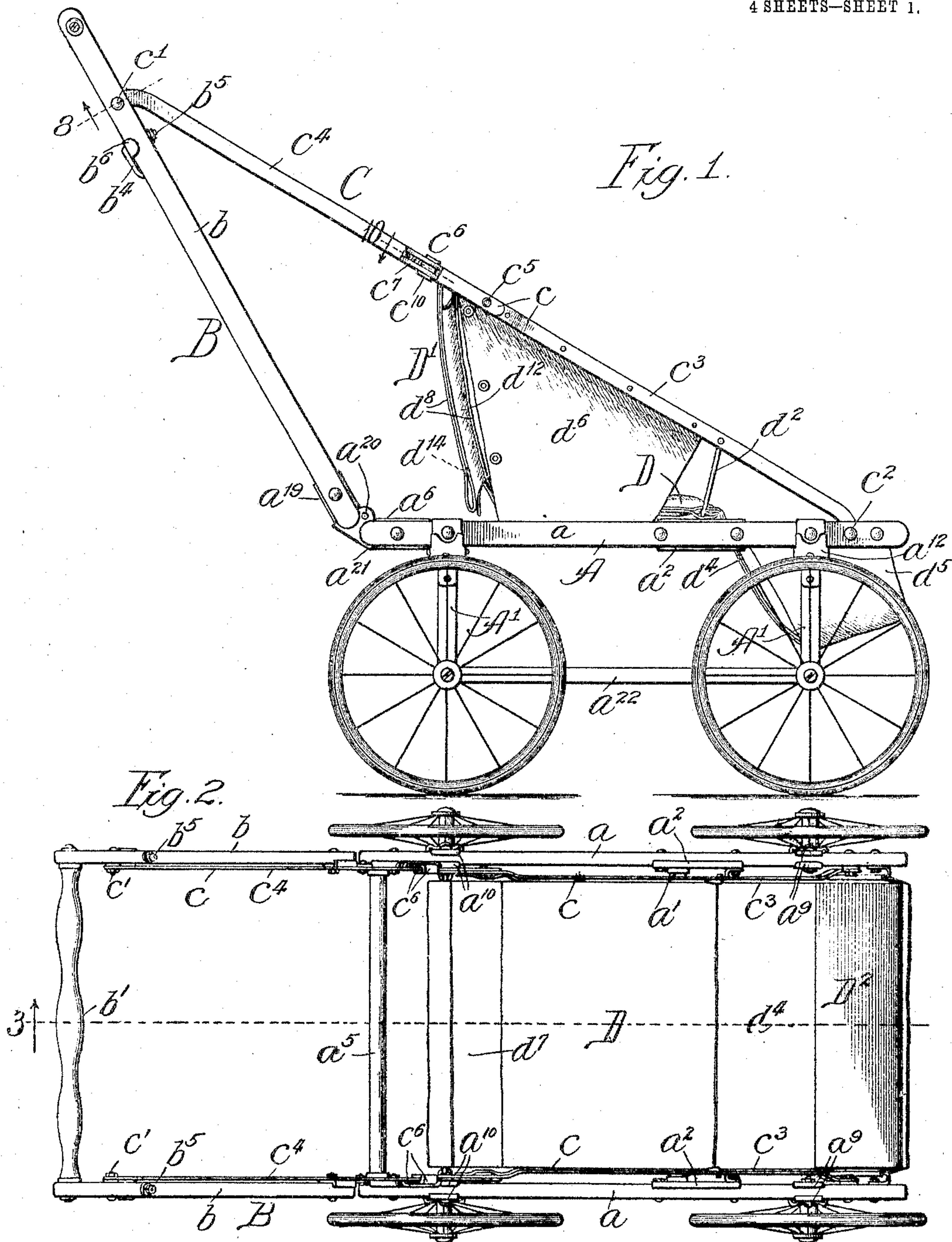


No. 789,310.

PATENTED MAY 9, 1905.

A. J. ADAMS.
BABY CARRIAGE.
APPLICATION FILED NOV. 30, 1904.

4 SHEETS—SHEET 1.



Witnesses:
Edw. C. Gaylord.
John Enders.

Inventor:
Arthur J. Adams.
By Dyrenforth, Dyrenforth and Lee,
Att'ys.

No. 789,310.

PATENTED MAY 9, 1905.

A. J. ADAMS.
BABY CARRIAGE.
APPLICATION FILED NOV. 30, 1904.

4 SHEETS—SHEET 2.

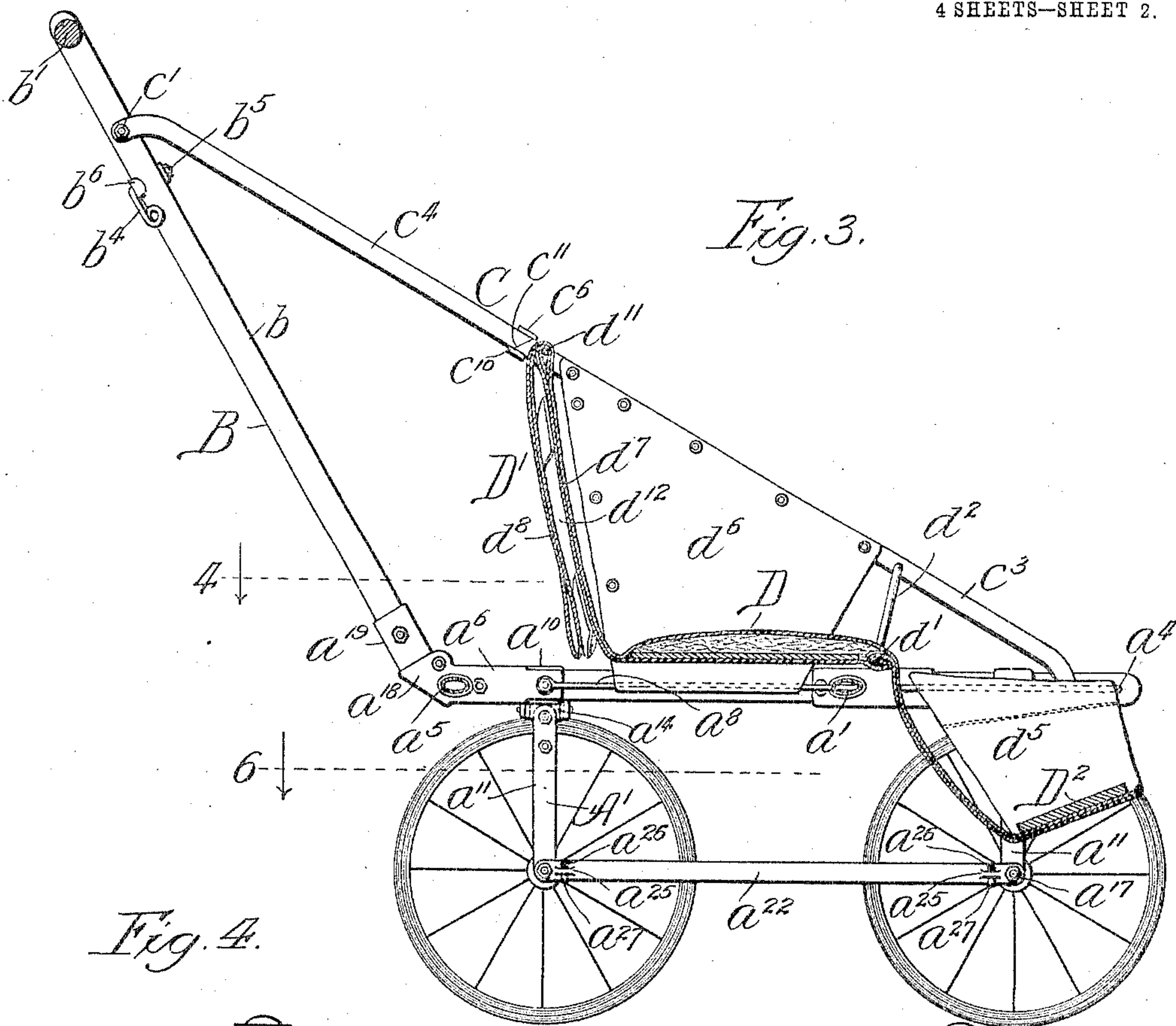
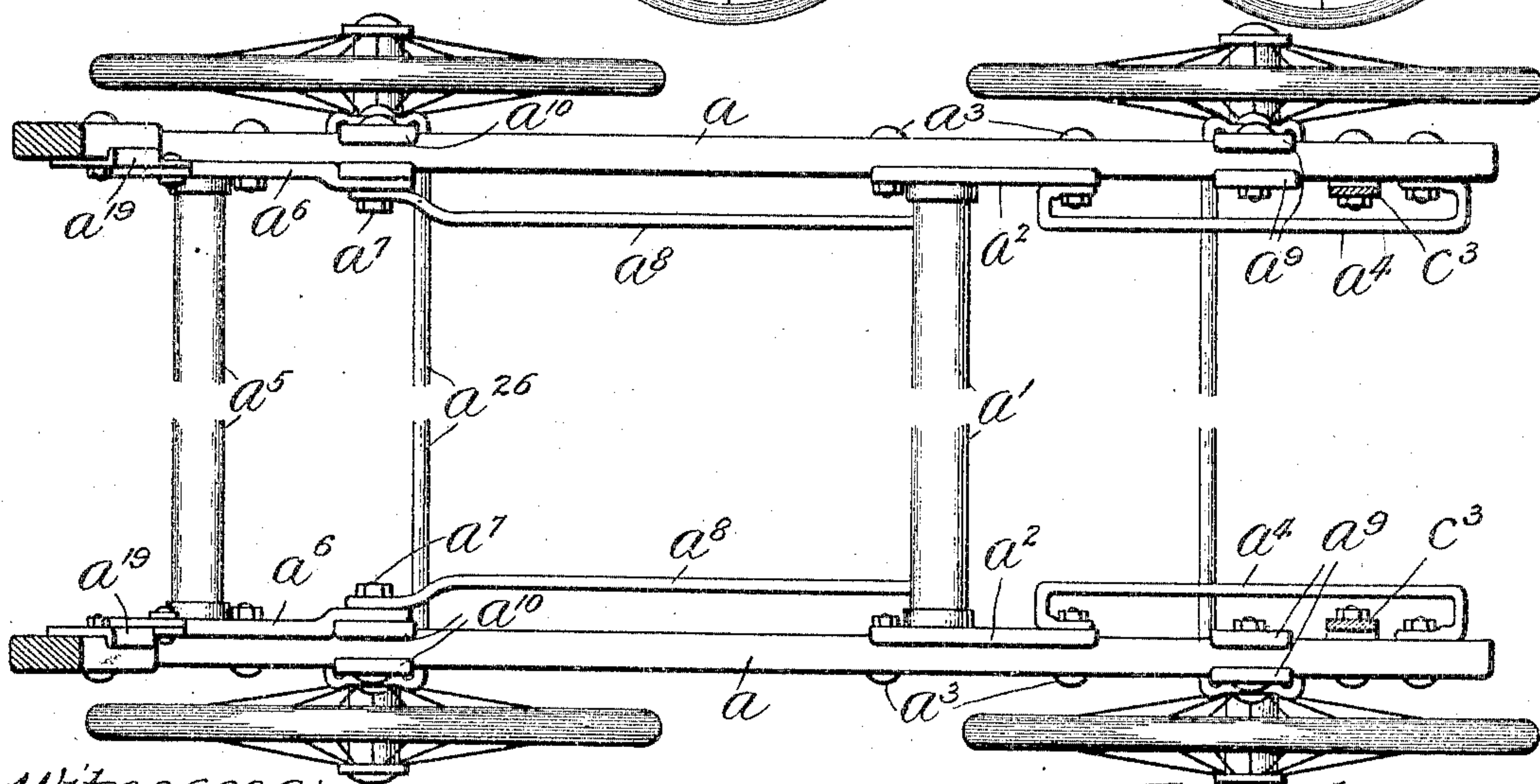


Fig. 4.



Witnesses:

Edw. Gaylord.

John Enders.

Inventor:

Arthur J. Adams,

By Dyrenforth, Dyrenforth and Lee,
Att'ys.

A. J. ADAMS.
BABY CARRIAGE.
APPLICATION FILED NOV. 30, 1904.

4 SHEETS—SHEET 3.

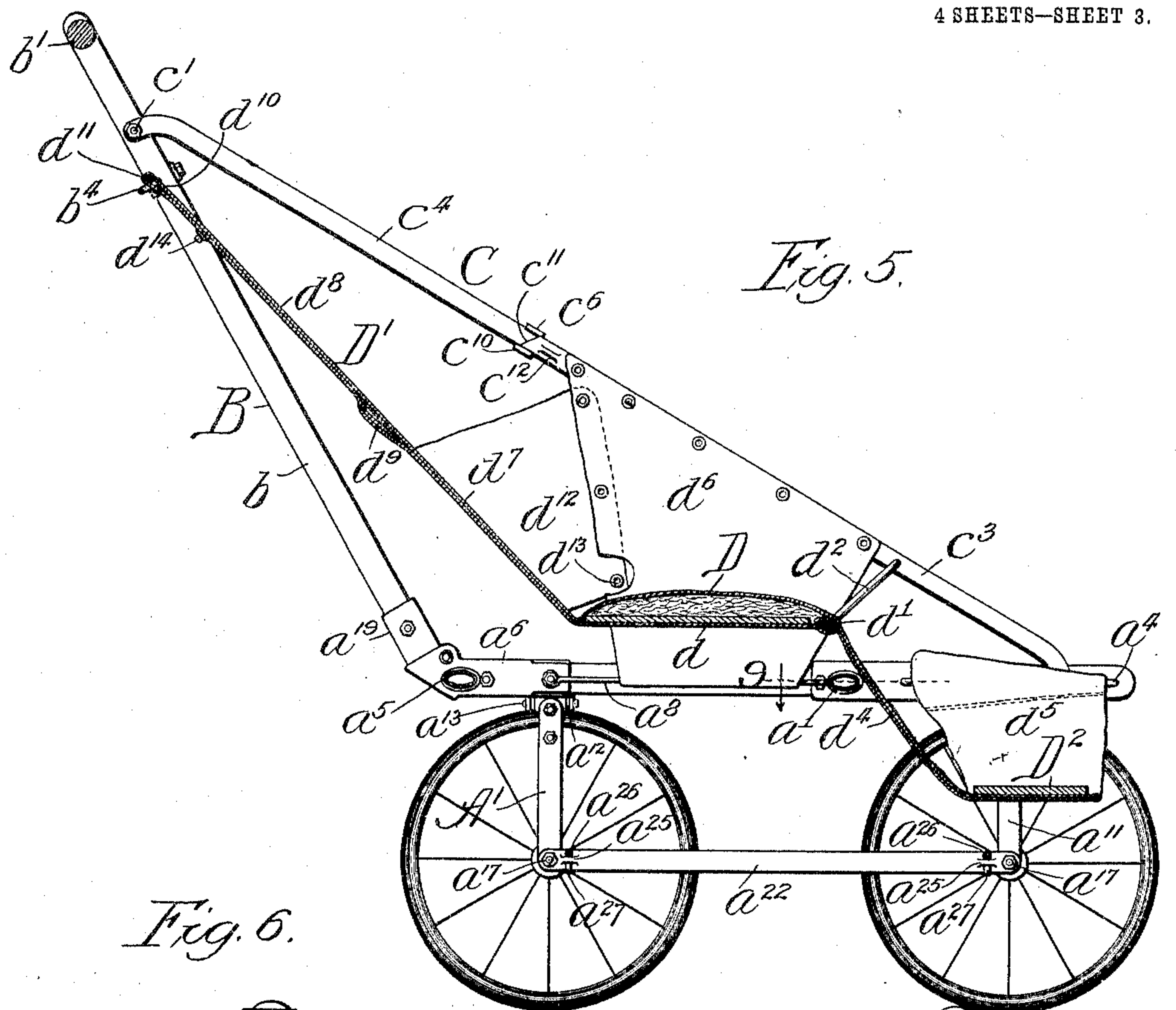
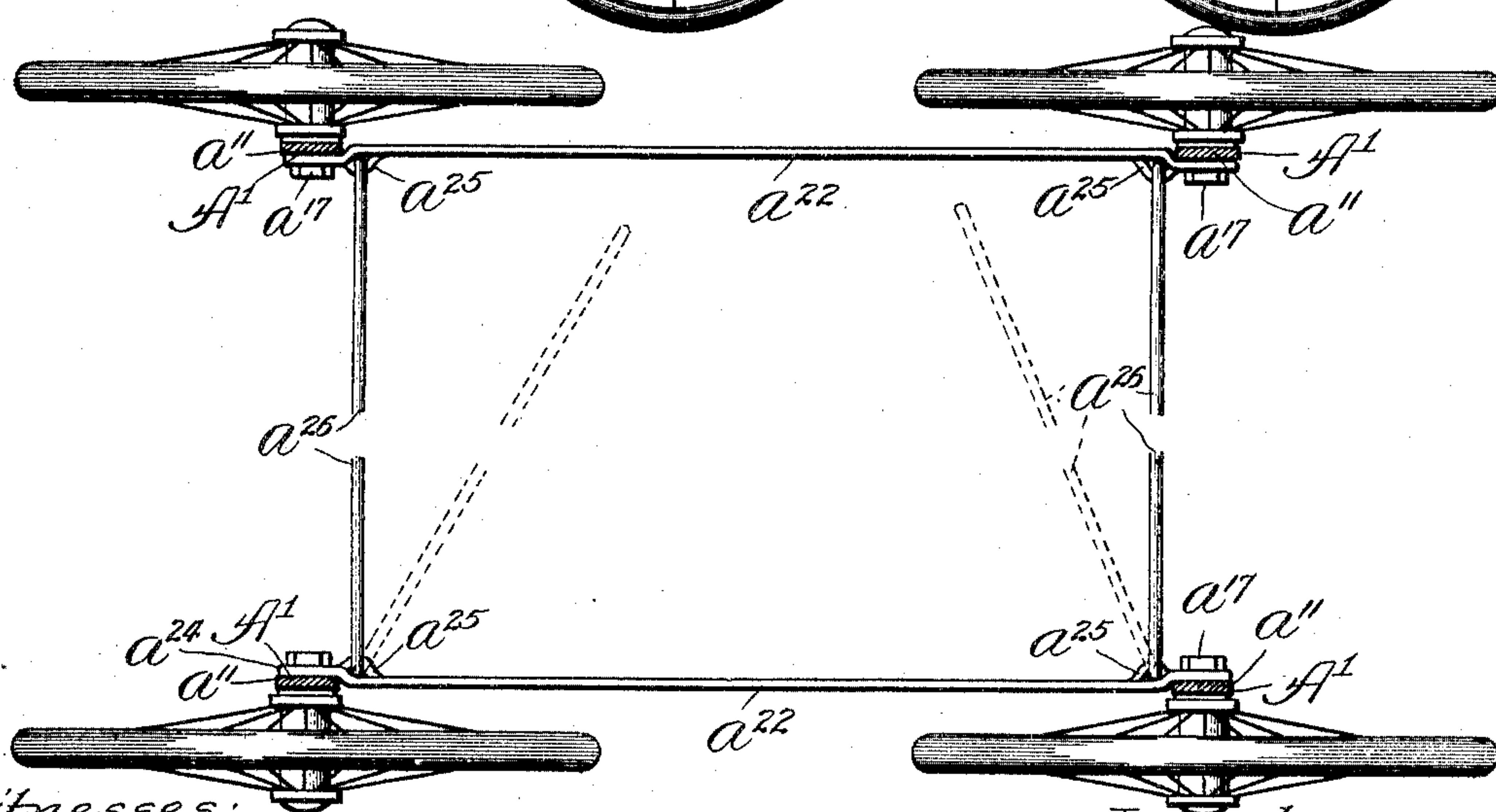


Fig. 6.

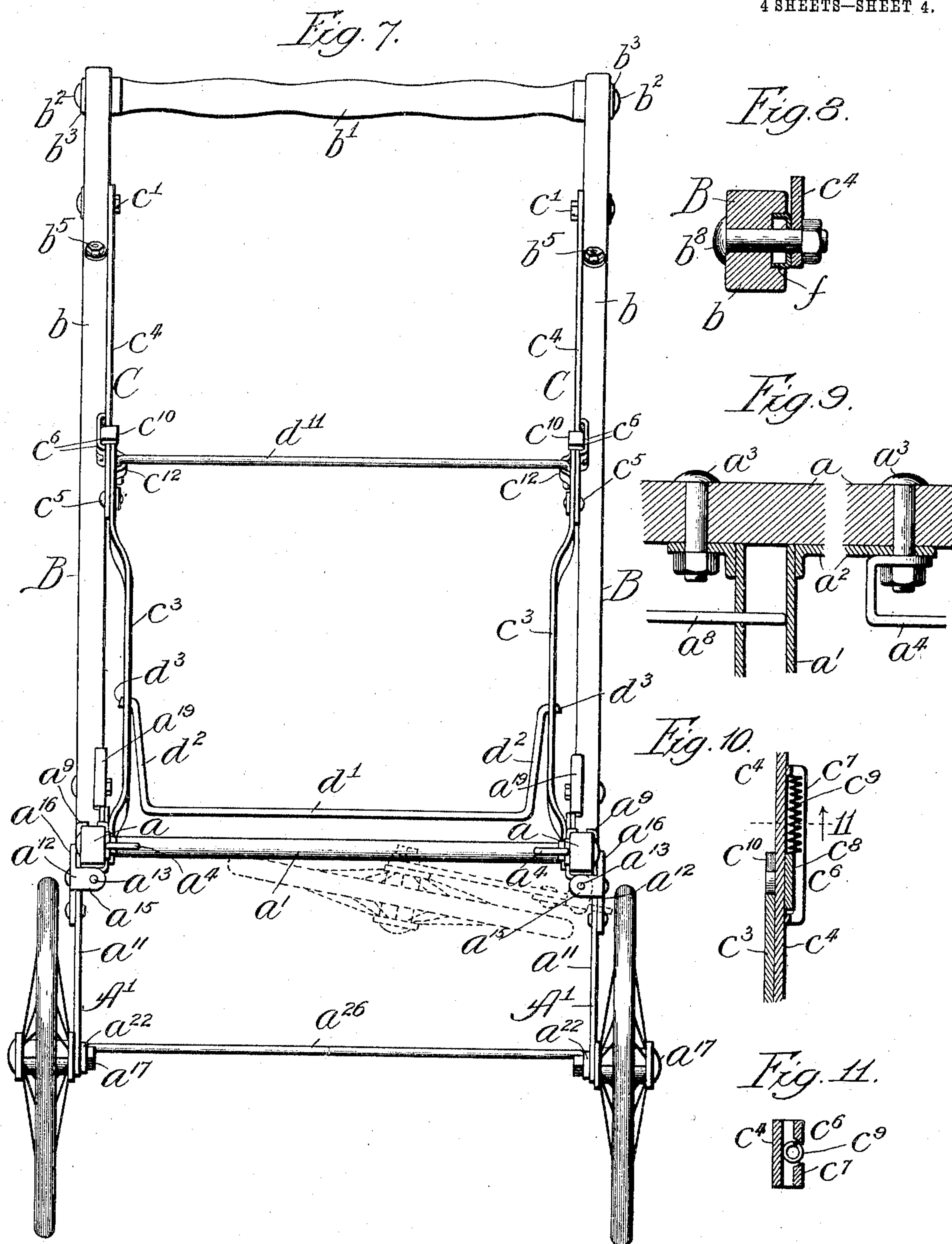


Witnesses:
Edw. Gaylord.
John Enders.

Inventor:
Arthur J. Adams,
By Dyrenforth, Dyrenforth and Lee,
Att'ys.

A. J. ADAMS.
BABY CARRIAGE.
APPLICATION FILED NOV. 30, 1904.

4 SHEETS—SHEET 4.



Witnesses:
C. C. Chylord.
John Enders.

Inventor:
Arthur J. Adams,
By Dyrenforth, Dyrenforth and Lee,
Att'ys.

UNITED STATES PATENT OFFICE.

ARTHUR J. ADAMS, OF CHICAGO, ILLINOIS.

BABY-CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 789,310, dated May 9, 1905.

Application filed November 30, 1904. Serial No. 234,916.

To all whom it may concern:

Be it known that I, ARTHUR J. ADAMS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Baby-Carriages, of which the following is a specification.

My invention relates particularly to go-carts or folding baby-carriages adapted peculiarly for use in traveling, owing to their capability of being folded compactly.

My primary object is to provide a carriage of the character indicated of exceedingly cheap and durable construction and better adapted to the comfort of the child than the carriages for the same purpose heretofore known.

My invention is illustrated in its preferred embodiment in the accompanying drawings, in which—

Figure 1 represents a side elevational view of the improved carriage with the reclining back connected with the seat folded and occupying a position adapted to a sitting posture; Fig. 2, a plan view of the same; Fig. 3, a longitudinal sectional view taken as indicated at line 3 of Fig. 2; Fig. 4, a broken plan view taken as indicated at line 4 of Fig. 3 and showing the running-gear, the seat and foot-rest being removed; Fig. 5, a view similar to Fig. 3, but showing the back adapted for a reclining position; Fig. 6, a plan section taken as indicated at line 6 of Fig. 3 and illustrating the connecting-rods employed for holding the wheel-supports or wheel-forks in an upright position; Fig. 7, a front view of the carriage with the seat, foot-rest, and attendant parts removed; Fig. 8, a section taken as indicated at line 8 of Fig. 1, showing a detail of a connection between metal and wood parts employed; Fig. 9, a broken section taken as indicated at line 9 of Fig. 5 and illustrating the manner in which the cross members of the running-gear frame are joined to the side members thereof; Fig. 10, a broken section taken as indicated at line 10 of Fig. 1 and showing a detail of a locking device employed, and Fig. 11 a section taken as indicated at line 11 of Fig. 10.

In the preferred embodiment of the inven-

tion illustrated, A represents a running-gear frame equipped with hinged wheel-supports A'; B, a rearwardly-inclined handle connected with the rear end of the frame A; C, a folding seat-support provided with means for maintaining its rigidity in use, said seat-support having connection at its front end with the front portion of the running-gear frame and at its rear end with the upper portion of the handle; D, a seat equipped with a back D', and D² a foot-support, which preferably is supported upon the front portions of the side members of the running-gear frame and has flexible connection with the front edge of the seat.

The running-gear frame preferably comprises, Fig. 4, substantially horizontal wooden side members *a*, a forwardly-located tubular cross member *a'*, having its ends joined to sheet-metal stampings *a''*, which are connected by bolts *a'''* with the side members *a*, foot-rest-supporting rods *a''''*, arranged on the inner sides of the front portions of the side members *a*, a rearwardly-located tubular cross member *a''''*, having its ends joined to sheet-metal stampings *a''''''*, which are connected by bolts *a'''''''* with the rear ends of the side members *a*, rods *a''''''''*, extending forwardly from the front ends of the stampings *a''''''* to the cross member *a'* and affording means of connection between the running-gear frame and the side leathers of the seat, and forwardly and rearwardly located clips or sheet-metal stampings *a''''''''* *a''''''''''*, respectively, affording pivot members through the medium of which the wheel-supports are joined to the running-gear frame. A detail of the connections between the cross member *a'* and the stampings *a''* is shown in Fig. 9, from which it appears that each stamping is provided with an inwardly-struck hollow boss which receives the adjacent end of the tubular cross member, the parts being brazed together. Connections of the same character are employed for joining the tubular cross member *a''''* to the stampings *a''''''*, and it may be here added that the front ends of the members *a''''''* are bent inwardly to accommodate the rear pivot-clips or stampings *a''''''''*, as shown in Fig. 4.

The wheel-supports comprise short bars *a''''''''''*, of relatively heavy material, equipped at their

upper ends with sheet-metal stampings affording hinge members a^{12} , which are connected by pivots or pintles a^{13} with the members a^9 a^{10} on the running-gear frame. The stampings a^9 a^{10} comprise U-shaped members having their extremities bent over the top of the side members a , as shown in Fig. 4, and having their lower web portions provided with downturned transverse pivot-lugs a^{14} , as shown in Fig. 3. The stampings a^{12} are equipped with inturned pivot-lugs a^{15} , which are connected with the pivot-lugs a^{14} by the pins a^{13} . The members a^{12} have upwardly-extending projections a^{16} , which engage the members a^9 a^{10} and form stops, preventing the wheel-supports from swinging outwardly beyond the normal vertical position. The lower ends of the bars a^{11} are equipped with outwardly-projecting bolts a^{17} , upon which the wheels are journaled. The stampings a^6 are placed on the inner sides of the rear portions of the side members a and have outwardly-turned flanges embracing the top and bottom edges of said members, as shown in Fig. 1. At their rear ends the members a^6 have inclined projections a^{18} , as shown in Fig. 3, with which are connected hinge members a^{19} , attached to the lower ends of the side members of the handle and joined to the projections a^{18} by pivots a^{20} . The members a^{19} comprise stampings located at the inner sides of the lower ends of the side members of the handle and having outwardly-turned flanges embracing the edges of said side members, as shown in Fig. 1. The members a^{19} are provided with shoulders a^{21} , which engage the rear ends of the lower flanges of the members a^6 , as shown in Fig. 1, thereby serving to limit the rearward swing of the handle B. The upright bars a^{11} of the wheel-supports have their lower ends joined by longitudinal bars a^{22} , preferably comprising stampings. The ends of the bars a^{22} are offset inwardly at a^{24} , the offset extremities being connected with the upright members a^{11} . Adjacent to the offsets the bars are split longitudinally and have eyes a^{25} struck inwardly. To the eyes of one bar a^{22} are pivotally connected transverse rods a^{26} , whose free ends are equipped with downturned hooks or pins a^{27} , which engage the eyes a^{25} of the other bar a^{22} . These hooks may be readily disengaged from the eyes to permit the rods a^{26} to be swung toward each other and folded alongside of the pivot-bar preparatory to folding the wheel-supports inwardly beneath the running-gear frame.

The handle preferably comprises wooden side bars b and a cross-round b' , joining the upper ends thereof. The cross-round is connected with the side members by screws b^2 , whose heads bear upon dished washers b^3 , having the form of the washer shown in Fig. 8. The members b of the handle are equipped at some distance from their upper ends with

fastening members comprising eyes b^4 , projecting inwardly from stems b^5 , which extend through the side members b and are secured in place by nuts. The stems b^5 extend through metal binding-clips b^6 at the rear edges of the bars b .

The seat-support C preferably comprises a pair of two-part folding side bars c , having their upper ends connected by pivots c' to the upper portions of the side members of the handle and their lower portions connected by pivots c^2 with the front portions of the side members of the running-gear frame. Each side bar c comprises a front section c^3 , a rear section c^4 , said sections being connected by a pivot c^5 , and a device c^6 , serving to automatically lock the members c^3 c^4 together when the seat-support is in the extended or unflexed condition, as illustrated in the drawings. Each locking device comprises a housing or guide c^7 , connected with the member c^9 , a sliding locking member c^8 , and a spring c^9 , confined between the member c^8 and the upper end of the housing. The housing is longitudinally slotted, as shown, to maintain the spring in its proper position. Each sliding locking member c^8 comprises a U-shaped member having its flanges c^{10} turned inwardly and embracing the top and bottom edges of the member c^4 and its web confined between the housing c^7 and the member c^4 . When the locking member c^8 is in its lowermost position, assuming the seat-support to be straight or unflexed, the flanges of the member c^8 embrace the upper and lower edges of the upper extremity of the corresponding member c^3 , thereby serving to prevent flexing of the side member c . The upper end of each member c^3 extends some distance above the pivot c^5 and has its end beveled, as shown at c^{11} , the bevel serving to engage the lower flange of the slide and move the slide rearwardly against its spring during the operation of straightening the side member of the seat-support, the slide returning to the locking position after the side member has been straightened, so that automatic locking of the side member in its unflexed condition is effected. As best shown in Fig. 2, the sections c^3 of the side members c have their end portions offset outwardly, so that when the side members are in the folded condition the sections c^4 will occupy a position outside of and parallel with the sections c^3 , the locking devices not interfering with this result. Near the upper ends of the members of the sections c^3 the metal is struck inwardly to form vertical eyes c^{12} , which serve to receive the hooks of a removable back-supporting rod.

The seat D may be of any suitable construction. Preferably it has a stiff bottom d and has its front edge linked by a pivoted stirrup d' to the sections c^3 of the side members c of the seat-support. This stirrup may comprise a piece of rod or heavy wire having a horizon-

tal middle portion and forwardly and upwardly inclined end portions d^2 , having outwardly - turned extremities d^3 extending through perforations in the sections c^3 . The portions d^2 are sprung inwardly somewhat in putting the stirrup in place, so that the natural spring of the wire tends to maintain it in its proper position. The front edge of the seat is preferably joined by a flexible connection, usually leather, d^4 , to the foot-support, and the foot-support is sustained by leather side pieces d^5 , joined to the rods a^4 . The sides for the seat preferably comprise sections of leather or other flexible material d^6 , connected with the sections c^3 of the seat-support and with the rods a^8 of the running-gear frame. The back for the seat preferably comprises sections or parts d^7 d^8 , which may be folded upon each other, as shown in Fig. 3, or used in the extended position, as shown in Fig. 5. This back is provided with a loop d^9 at the junction between the sections d^7 d^8 and a loop d^{10} at the free edge of the section d^8 . A cross-rod d^{11} , having its extremities bent to form hooks or pins, may be inserted either in the loop d^9 or in the loop d^{11} and connected with the eyes c^{12} or the eyes b^4 , according as an upright or a reclining position for the back is desired. Side flaps d^{12} are connected with the lateral edges of the lower section d^7 of the back and are provided at their free edges with eyelets d^{13} , adapted for connection with buttons, with which the rear vertical edges of the side leathers d^6 are equipped. These flaps d^{12} are in use when the back is in its reclining position, and when the back is in its substantially vertical position the flaps are folded back of the section d^7 and the section d^8 is allowed to drop down to cover the flaps. The section d^8 is equipped with buttons d^{14} , which may be caused to engage the lowermost eyelets d^{13} of the flaps, thereby securely connecting the parts.

In Fig. 8 is shown a detail of the preferred manner of joining the upper section c^4 of the side member of the seat-support to the corresponding side member of the handle. A bolt c' extends through perforations in the side members b and the section c^4 , and a washer f of special construction is interposed between the pivotally-connected members. The washer comprises a metal stamping having an intumed circumferential flange extending into a countersink in the wood, the bottom of the stamping projecting beyond the surrounding surface of the wood to afford a metal bearing for the section c^4 . This expedient is employed at other similar joints throughout the construction.

The manner in which the carriage may be folded and unfolded will be understood without detailed description. Assuming the back to be arranged for a sitting posture and the carriage to be in proper condition for use, the locking members c^8 may be grasped and re-

tracted and the side members of the seat-support pressed down at their central joints, the handle being then free to be folded down upon the running-gear frame. Next, the cross-rods a^{26} may be unhooked and the wheel-supports folded inwardly and upwardly beneath the running-gear frame, thereby completing the folding of the carriage. In this condition the carriage is in exceedingly compact form and may be readily carried as hand-baggage. In unfolding the carriage to put it into condition for use the reverse movements are employed.

It will be observed that the manner of supporting the seat D is such as to prevent that rigidity which is so undesirable in this class of construction. Moreover, the seat is permitted a certain degree of movement which is conducive both to health and comfort. The feature of an extensible back capable of assuming a position corresponding with a sitting posture and a position corresponding with a reclining posture is a novelty in this class of construction and evidently adds greatly to the comfortableness of the carriage, since the child may be permitted to sleep as comfortably in this carriage as in the ordinary non-folding carriage.

It will be appreciated that the feature of making the principal rigid parts of wood and metal stampings enables the cost of the cart to be reduced to a minimum, while the durability is still very great. This is of very great importance, since, as a matter of fact, the ordinary folding carriage of the same general type is too expensive for general use.

Many changes in details of construction within the spirit of my invention may be made. Hence no undue limitation should be understood from the foregoing detailed description, which has been given for clearness of understanding only.

What I regard as new, and desire to secure by Letters Patent, is—

1. The combination with a running-gear frame and a handle pivotally connected with the rear portion thereof, of a folding seat-support having pivotal connection at one end with the upper portion of the handle and pivotal connection at the other end with the front portion of the running-gear frame, for the purpose set forth.

2. The combination with a running-gear frame and a handle pivotally connected with the rear portion thereof, of a folding seat-support comprising side members having pivotal connection with the upper portion of the handle and the front portion of the running-gear frame, each side member comprising an upper and lower section pivotally connected together and means for maintaining said sections in the extended position, for the purpose set forth.

3. In a folding carriage, the combination of a substantially horizontal running-gear

frame, an inclined handle pivotally connected with the rear portion of said frame and capable of folding forwardly upon the frame, and a seat-support comprising two side members having pivotal connections with the handle and with the front portion of the frame, each side member comprising an upper section and a lower section having their adjacent ends pivotally joined together, and a locking device connected with said sections and automatically actuated in the operation of straightening the side member to lock the sections thereof in the extended position, for the purpose set forth.

4. In a folding carriage, the combination of a running-gear frame, a handle pivotally joined to the rear portion thereof and capable of swinging forward to a folded position with relation to the frame, and a seat-support comprising side members pivotally joined to the upper portion of the handle and the front portion of the running-gear frame, each side member comprising an upper section and a lower section, one of said sections bearing a cam projection and the other a spring-held locking member, the cam operating to retract the locking member in the operation of straightening the side member, the locking member returning to its normal position to automatically lock the side member in the extended position, for the purpose set forth.

5. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof and capable of swinging forward to a folded position with relation to the frame, a folding seat-support comprising side members joined to the upper portion of the handle and the front portion of the running-gear frame, means for maintaining the seat-support in its extended position, and a seat connected with said support, for the purpose set forth.

6. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof and capable of swinging forward to a folded position with relation to the frame, a folding seat-support comprising side members joined to the upper portion of the handle and the front portion of the running-gear frame, means for maintaining the seat-support in its extended position, and a seat having a portion linked to said support.

7. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof and capable of swinging forward to a folded position with relation to the frame, a folding seat-support comprising side members joined to the upper portion of the handle and the front portion of the running-gear frame, means for maintaining the seat-support in its extended position, a seat, a stirrup connected with the front end of said seat and pivotally joined to

said support, a flexible back connected with the rear edge of said seat, and means for supporting said back, for the purpose set forth.

8. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion of said frame and capable of swinging forwardly to a folded position with relation to the frame, a folding seat-support connected with the upper portion of the handle and the front portion of the running-gear frame, a seat having its front edge linked to said seat-support, an extensible back, and connections for supporting said back in a position corresponding with a sitting posture and also for supporting said back in a position corresponding with a reclining posture, for the purpose set forth.

9. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion of said frame and capable of swinging forwardly to a folded position with relation to the frame, a folding seat-support connected with the upper portion of the handle and the front portion of the running-gear frame, a seat having its front edge linked to said seat-support, a folding extensible back, and connections whereby the back may be supported either in a substantially vertical position or in a reclining position, for the purpose set forth.

10. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion of said frame and capable of swinging forwardly to a folded position with relation to the frame, a folding seat-support connected with the upper portion of the handle and the front portion of the running-gear frame, a seat having its front edge linked to said seat-support, a folding extensible back, connections on the folding seat-support for sustaining the back in one position, and connections in the vicinity of the pivots at the rear end of the folding seat-support for sustaining the back in another position, substantially as and for the purpose set forth.

11. In a folding carriage, the combination of a running-gear frame, a handle pivotally joined thereto, a folding seat-support joined to the upper portion of the handle and the front portion of the frame, a seat linked to said seat-support, a foot-rest supported on the front end of said running-gear frame and a flexible connection between the front edge of the seat and said seat-support, for the purpose set forth.

12. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof, a seat-support, a seat having its front edge linked by a stirrup to said seat-support, and a suitably-supported flexible back connected with the rear edge of said seat, for the purpose set forth.

13. A running-gear frame for a folding carriage comprising wooden side members, metal

stampings connected to the inner sides of said side members and cross members secured to said stampings.

14. A running-gear frame for a folding carriage comprising wooden side members, metal stampings joined to the inner sides thereof and having inwardly-projecting bosses and tubular cross members joined to said bosses, for the purpose set forth.

15. A running-gear frame comprising wooden side members, metal stampings joined to the inner sides thereof near their front ends, a cross member joined to said stampings, rear metal stampings joined to the inner sides of the rear portions of said side members and equipped with pivotal lugs, and a cross member joining said last-named stampings in combination with a handle comprising wooden side members equipped at their lower extremities with shoulders serving to engage shoulders on said second-named stampings, thereby limiting the rearward swing of the handle, for the purpose set forth.

16. A running-gear frame for a folding carriage comprising wooden side members

equipped on their inner surface with metal stampings, cross members joining said stampings, foot-rest-supporting rods connected with the inner sides of the front portions of said side members and side leather-attaching rods connected with the inner sides of the intermediate portions of said side members, for the purpose set forth.

17. For use in a running-gear frame of a folding carriage, a sheet-metal stamping having a pivot portion for the attachment of the handle, and outturned flanges to embrace a wooden side member of a running-gear frame, for the purpose set forth.

18. In a running-gear frame, the combination with suitable side members of wheel-supports hinged thereto and capable of folding beneath the running-gear frame, bars connecting the lower portions of said supports and cross-rods joining the wheel-supports, for the purpose set forth.

ARTHUR J. ADAMS.

In presence of—

J. H. LANDES,

W. B. DAVIES.