(No Model.) 2 Sheets—Sheet 1.

A. H. HOUSTON.

CARRIAGE BODY.

No. 547,075. Patented Oct. 1, 1895.

Fig. 1

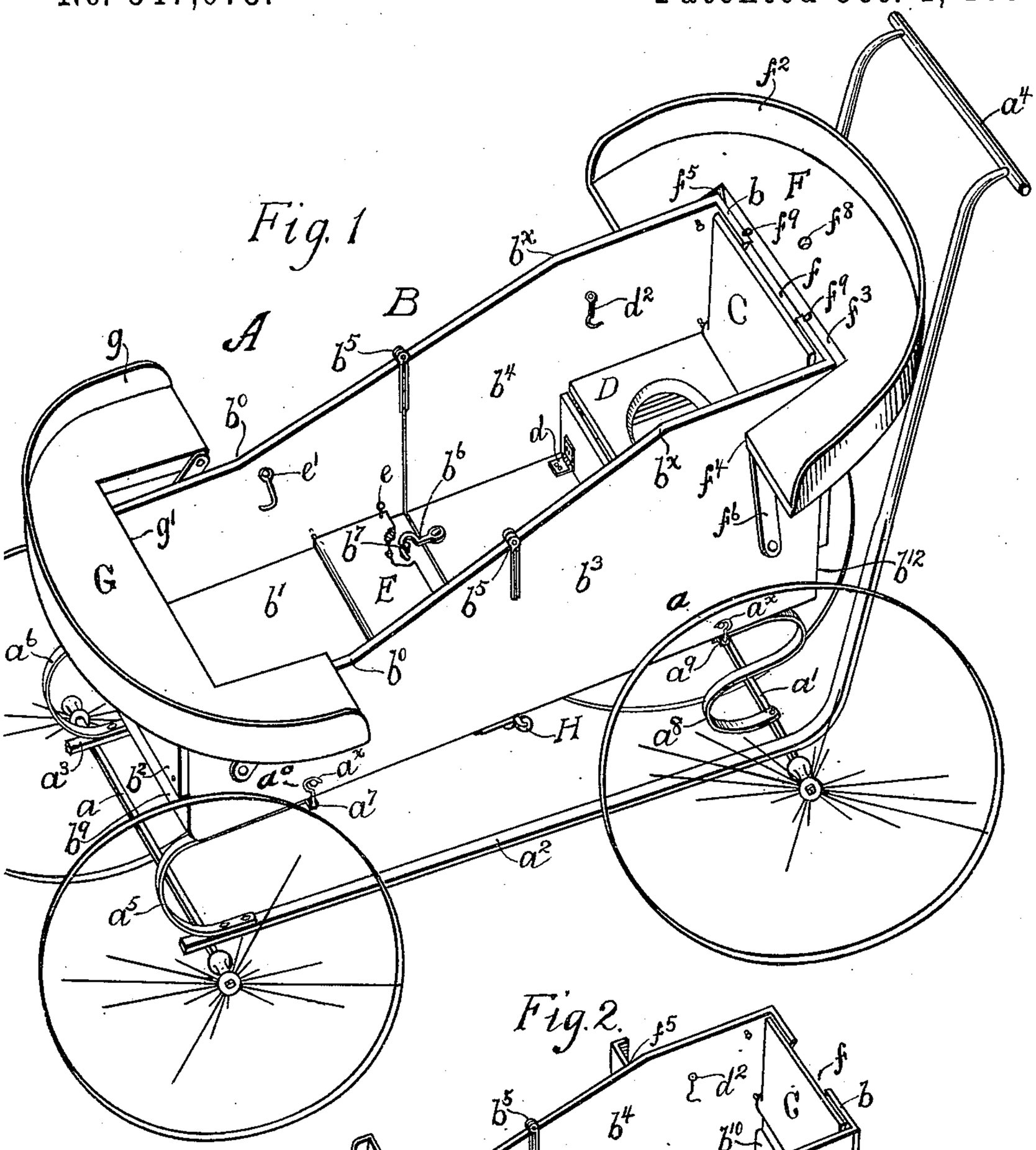
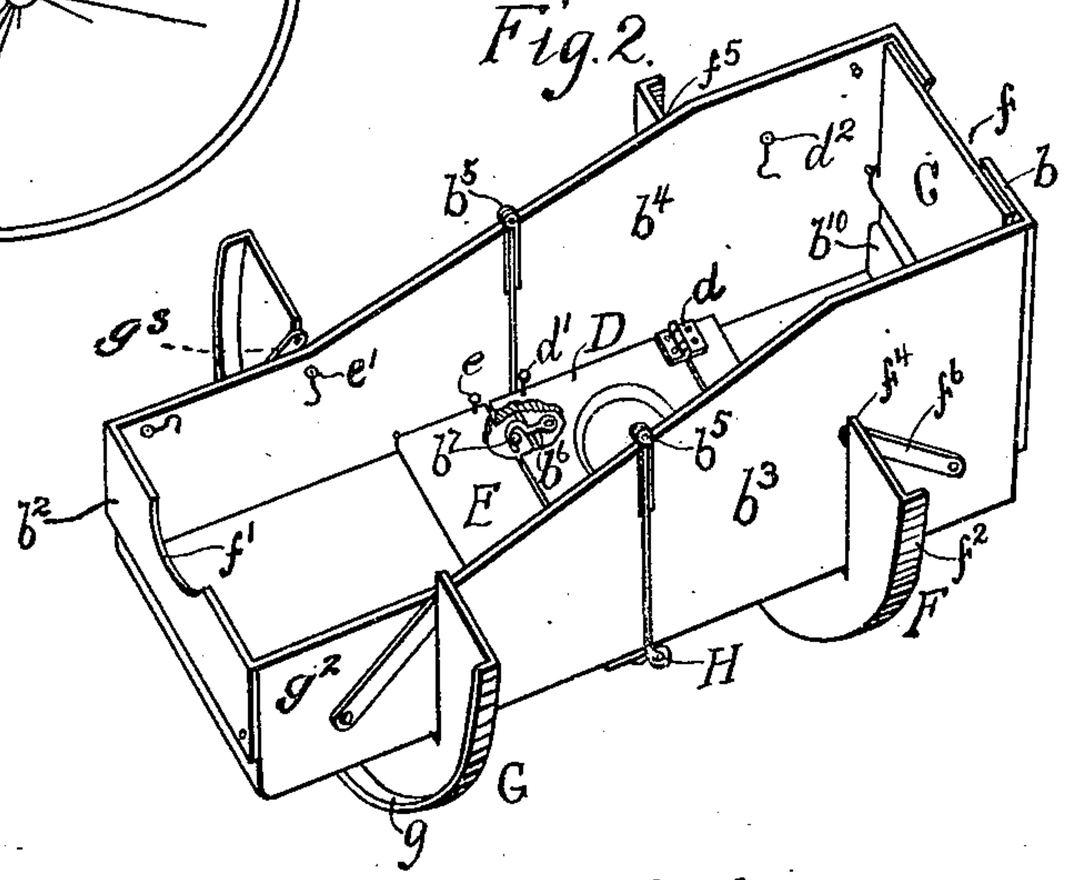


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

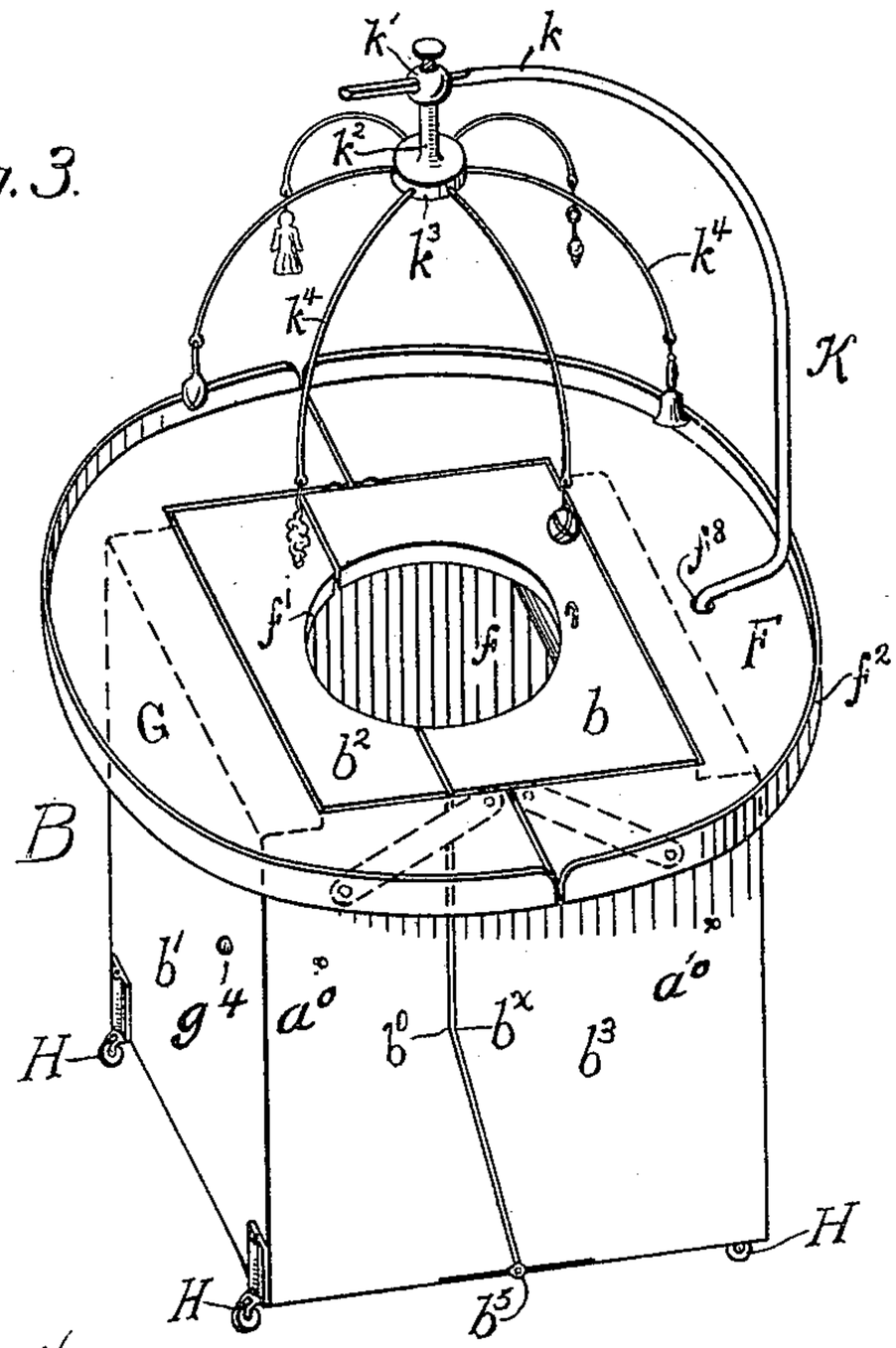
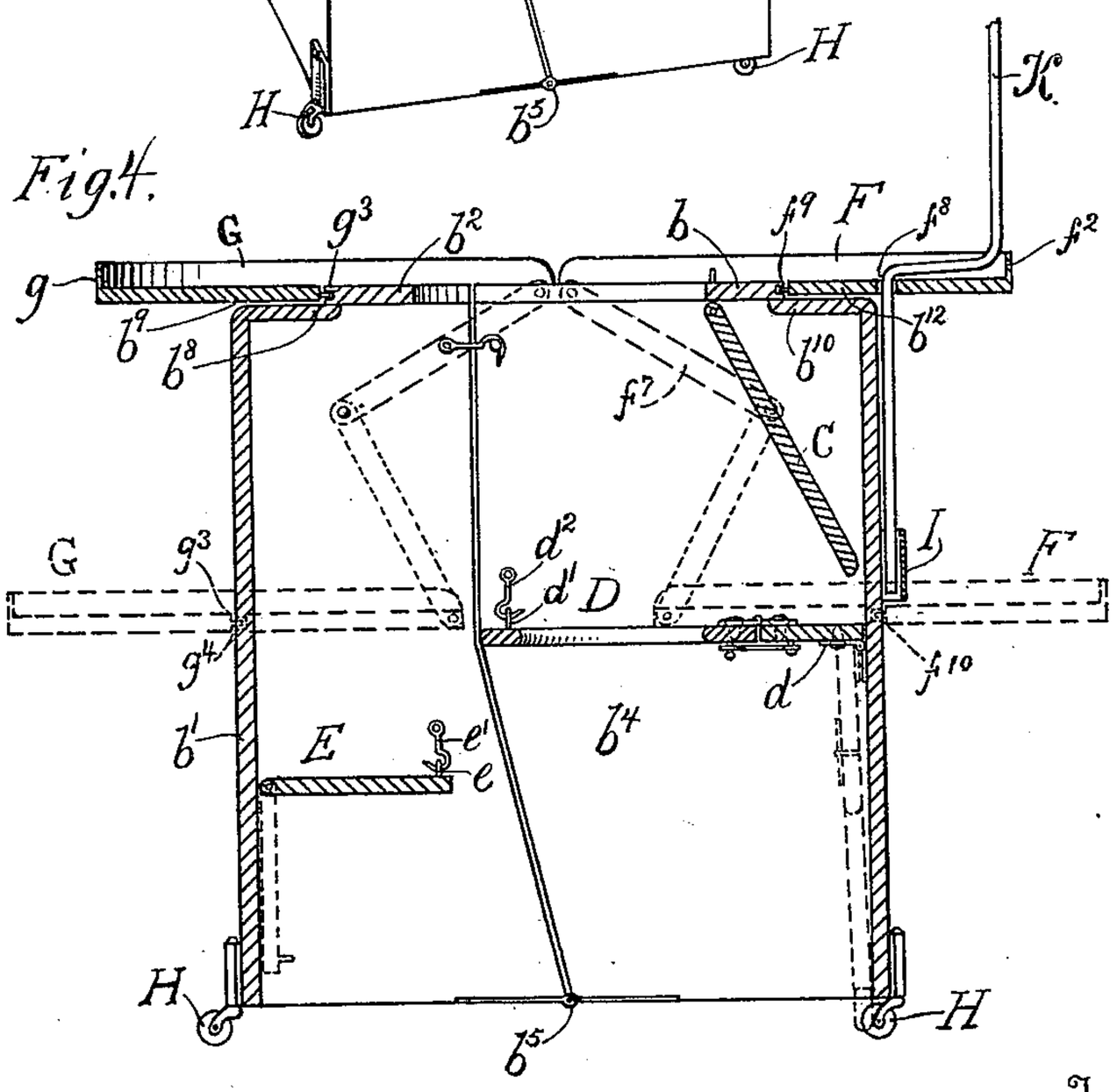


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALBERT H. HOUSTON, OF KANSAS CITY, MISSOURI.

CARRIAGE-BODY.

SPECIFICATION forming part of Letters Patent No. 547,075, dated October 1, 1895.

Application filed January 21, 1895. Serial No. 535,686. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. HOUSTON, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Carriage-Bodies; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The object of my invention is, first, to detach the body of the carriage from its support and adapt the same to the purposes of a cradle; second, to convert the body of the carriage to a child's body-support or tender; third, to enable the cradle-rockers to be converted into the table for the child's body-support or tender; fourth, to enable the adjustment of the cradle-rockers to the position below the top of the body-support or tender.

My invention further consists in the novel construction and combination of parts such as will first be fully described, and specifically pointed out in the claims.

Referring to the drawings, Figure 1 is a view in perspective of the convertible carriage-body, shown mounted upon wheels and detachably secured to the springs upon the connecting-bars to the front and rear wheels, also showing the separate hinged parts of the body of the carriage and the means for securing the same when mounted upon the wheels, and also the position of the various changeable parts when so mounted. Fig. 2 is a view in perspective showing the body of the carriage detached from the support upon the wheels and mounted upon the rockers. Fig. 3 is a view in perspective of the body of the carriage when the parts are folded in position and made a body-support or tender. Fig. 4 is a vertical sectional view of the body-support or tender in the position as shown in Fig. 3.

Similar letters of reference indicate corresponding parts in all the figures.

Referring to the drawings, A represents a child's carriage, the front and rear axles a and a' of which are connected rigidly by means of parallel connecting-bars a^2 a^3, which extend from the front axle a to the rear axle a' and are arranged a suitable distance apart and in this instance corresponding to the width of the carriage-body. Said bars a^2 a^3 also extend from the rear axle a' in an upward and rearward direction the usual height and connected together by a transverse bar a^4, by means of which the carriage is given the desired movement. To the upper side of the bar a^2, on the end connected with the axle a, is attached rigidly one end of a U-shaped spring a^5, the other end of which extends outwardly and upwardly a short distance in a curved line and thence rearwardly to a position in rear of the point of attachment of the end upon the bar a^2. Upon the end of bar a^3, on the axle a, is attached in like manner a U-shaped spring a^6, which is similar to the spring a^5. On the upper side and end of the spring a^5 is a block a^7, and upon the spring a^6 is a similar block, for the purpose hereinafter described.

To the rear axle a' is attached, close in position to the connecting-bar a^2, one end of a curved spring a^8, the other end of which extends forward and upwardly a slight degree in height above the upper end of the spring a^5 and thence a short distance rearwardly. Upon the upper end of the spring a^8 is a block a^9, for the purpose hereinafter described. To the other end of the axle a', near bar a^3, is a spring precisely the same as the spring a^8, and upon which is arranged a block in like manner.

The carriage-body B consists of a rectangular-shaped box, which extends in length from a position above the axle a to a position above the axle a' and is mounted upon the springs a^5 a^6 and a^8 a^8 upon the respective axles, so as to be detached in the following manner: To each block a^7 a^9, near one side of the body of the carriage, is attached a hook $a^\times$, which engages with an eye a^0 on the side of the carriage-body B. Upon the other side of the body of the carriage are similar eyes, which are engaged by hooks on the blocks connected with the respective springs.

The rear end portion b of the body B extends in a vertical direction from the bottom b' about twice the described distance of the front end b^2 of the body. The sides b^3 b^4 of the body B decline in height from the rear end b toward the forward end in the follow-

ing manner: From the said rear end the upper edges of the sides b^3 b^4 extend about one-fourth the distance described between the front and rear ends of said body in a horizontal line or to a point $b^\times$ on said edges. From the front end b^2 of the body, extending toward the rear end, the upper edges of the sides b^3 b^4 are horizontal to a point b^0 and equal to the distance described from the rear end b to the point $b^\times$ of said body. From said point $b^\times$, the upper edges of the body are inclined downwardly at an angle to the point b^0 in a corresponding degree. The body B is then separated into two parts upon a transverse line through the sides and bottom and between the points b^0 b^0 $b^\times$ $b^\times$ on the upper edge of said sides. To one of the separate parts of one of the sides of the body of the carriage is connected, near the upper edge, one leaf of a hinge b^5, the other leaf of which hinge is connected with the other separate part, the opposite parts of the meeting edges of both parts being cut away to admit the hinge. The separate parts of the other side of the body of the carriage are hinged together in precisely the same manner.

The separate parts of the bottom of the carriage are retained together by means of a hook b^6, which is attached to the upper side of one part of the bottom and engages with an eye b^7 on the adjacent separate part. The ends b b^2 of the body of the carriage extend to a position in line with the outer portion of the sides b^3 b^4. From the upper edges of the said sides b^3 b^4 the end b^2 extends downwardly to a point a short distance from the bottom b', thus leaving an opening from the lower edge of the said end to the bottom b', which is covered by a transverse strip b^8 (see Fig. 4) on the inner side of the box and extending from one side b^3 to the other side b^4, and also leaving a rabbet b^9 on the end, for the purpose hereinafter described. The end b extends in a downward direction to a point a like distance from the bottom, as described, by the end b^2, and the opening thus made is covered by a strip b^{10} on the inner side of the carriage. In the end b, near the bottom, is thus formed a rabbet b^{12}, for the purpose hereinafter described. To the sides b^3 b^4, a short distance above the strip b^{19}, is hinged the lower edge of a seat C, the upper edge of which seat extends nearly to the upper edge of the end b. To the bottom b' of the body of the carriage and extending from one side to the other at a point equidistant from the line of separation of the parts of the body and the end b is attached to a cleat d, to which cleat is hinged a seat D, which seat extends normally in a horizontal direction a short distance past the lines of separation of the parts of the body B. In the upper part of the seat D is an eye d'. Upon the inner side b^4 of the body B, near the upper edge and between the line of separation and the end b, is a hook d^2. Close in position to the outer edge of the seat D is the inner edge of a foot-rest E, the ends of which, near the outer edge of said seat, are hinged to the respective sides b^3 b^4 of the body B. Upon the foot-rest E, near one end, is an eye e, and upon the adjacent side of the body B is a hook e'. In the end b of the body B is an opening f, which describes nearly three-fourths of a circle. (See Fig. 3.) In the end b^2 is an opening f, which describes one-quarter of a circle and forms with the other portion of the sides of the opening f the opening as seen in Fig. 3. At the rear end of the body of the carriage-body B is an adjustable semicircular plate F, to the curved edge of which is attached rigidly a thin strip f^2, which extends a short distance above the line of the upper surface of said plate. In the circular plate F is a transverse opening f^3, slightly longer than the described width of the body of the carriage and in depth sufficient to admit the entranre of said end of said body about one-half the described distance in the line of the diameter of a circle drawn upon the plate F, the inner edge f^4 of the opening f^3 at the side b^3 of the body of the carriage, and also the inner edge f^5 on the side b^4, being rimmed from the respective sides a slight distance, so as not to bind against said sides.

To the inner edge f^4 of the plate F, near the line of axis, is pivotally attached one end of a flat bar f^6, the other end of which bar extends in a downward direction to a point nearly as far as that described by the end b of the body of the carriage, at which point said end of bar f^6 is pivoted to the side b^3 of the body B. To the other inner edge f^5 of the plate F is attached a bar f^7, which extends downwardly and is pivoted to the side b^4 of the body B in the same manner as the bar f^6. (See Fig. 4.)

At the front end of the body of the carriage is a semicircular adjustable plate G, which is precisely the same size as the plate F and is provided with a strip g on its curved edge. Said plate G is made with an opening g', which admits the end b^2 of the carriage in precisely the same manner as the opening f^3 on the plate F. To the inner edge of the opening in plate G, adjacent to the side b^3, is pivoted one end of a bar g^2, the other end of which bar extends in a downward direction and is pivoted to said side at a point nearly equidistant from the upper and lower edges of said sides at said end of the body B. To the inner edge of the side of the opening in the plate G, adjacent to the side b^4 of the carriage, is pivoted one end of a bar g^3, the other end of which bar is pivoted to the side b^4 of the body B in like manner as the bar g^2 to the side b^3. To the bottom b' of the body B and near the line of separation of the parts of the body of the carriage are attached the casters H H, said casters being attached to each separate part and arranged in position so as to pass each other when not in use. Upon the bottom b' and a short distance from the rear end of the body

is attached a socket I, and in the plate E is made a perforation f^8, for the purposes hereinafter described.

For the purposes of a carriage-body the various parts, as seen in Fig. 1, are in a normal position, the seat C covering the opening f in the end b of the body of the carriage and the plate F at the rear end resting partially upon the bars which are used to propel the carriage. The plate G rests upon the upper edge of the body B of the carriage.

To convert the body of the carriage to the purposes of a cradle, the hooks $a^\times$ are first released from the eyes a^0, which hold the body of the carriage to the blocks a^7 a^9 on the springs a^5 a^8, and the body B is detached from the springs. The plates E G are then adjusted in the position as seen in Fig. 2, the said plates being moved directly beneath the body B and fitted against the bottom b'. To secure the plate F from lateral movement, pins f^9 f^9 are placed on the inner edge of the opening f^3, which enter perforations f^{10} on the bottom of the body of the carriage. (See Fig. 4.) Upon the plate G are similar pins g^8, which enter openings g^4 on the bottom of the body B of the carriage.

To convert the body B of the carriage to the purposes of a body-support or tender, the body is detached from the springs in the same manner as the cradle. The hinged cover C is folded downwardly toward the bottom b', and the seat D is raised upwardly in the position as seen in Fig. 4 and secured by the hook d^2, which enters the eye d' in said seat. The foot-rest E is raised in the position as seen in Fig. 4 and secured by the hook e'. The hook b^6 in the bottom of the body is then released from the eye b^7 and the body permitted to fold upwardly and take the position as seen in Fig. 3, the horizontal and inclined position of the edges of the body forming a bearing at the points $b^\times$ b^0, so that the downward pressure of any one part is taken from the hinge. The two parts of the body are then secured by means of a hook k on the inside of the body B and on the side b^4, the hook being easily reached through the opening f. In this position the body-support rests upon the casters H H. The adjustable plate F is then moved so as to enter the rabbets b^{12} and takes a position in line horizontally with the end b, the pin f^9 engaging with a perforation in the edge of the said end. The plate G is then adjusted within the rabbet b^9 and in a line horizontally with the end b^2, the pins upon said inner edge engaging with the said end in like manner as upon plate F. In the position seen in Fig. 3 the said plates F G describe a full circle. When the support is used for assisting the child to walk, the said plates F G are adjusted in the position as seen in Fig. 4 in dotted lines, thus enabling the outer sides of the support to be reached by the hands, and the said parts F G afford a protection from stationary objects. When so employed, the seat D may be permitted to be retained in the position as seen in Fig. 1, and also the foot-support E. In the position as seen in Figs. 3 and 4 the plate F is in a position to receive the lower end of a rod K, which enters the perforation f^8 in said plate, and also enters the socket I in the portion b' of the body B. The upper end k of the rod extends a considerable distance above the plate F and is bent forward in a horizontal position and above the opening f. Upon said end k is an adjustable slide k', to which slide is attached a pin k^2. To the lower end of the pin k^2 is pivoted a circular plate k^3, to which is attached the wires k^4. The wires k^4 extend from the edges of the plate k^3 and support any shade or other device convenient to be attached thereto.

The ends b b^2 are shown rigidly attached to the body B. They may, however, be pivoted so as to swing at one side, if desired. From the positions as seen in Figs. 3 and 4, the change is readily made to that of the carriage-body and mounted upon the springs in the manner described.

In this invention the utilities of heretofore-separate articles are brought economically into a small compass and subserve all the requirements of these separate devices.

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

1. In a convertible carriage body the combination with the sides and ends of said body of semi-circular plates at each end, and each having an opening adapted to receive the end of said body and bars pivotally connected with the sides of said body and the adjacent portions of said plates opposite said sides substantially as and for the purpose described.

2. In a convertible carriage body having separate hinged parts adapted to fold together and the ends of said parts provided with rabbets the combination of adjustable semi circular plates having openings adapted to receive the ends of said body and bars pivotally connected with the sides of said body and with the adjacent portions of said plates substantially as and for the purpose described.

3. In a convertible carriage body having separate hinged parts adapted to fold together and separate adjustable semi circular plates, a socket upon the bottom of said carriage body and a rod extending through said plate into said socket for the purpose described.

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