C. F. THAYER.

BABY CARRIAGE.

APPLICATION FILED JULY 10, 1911.

1,053,455. Patented Feb. 18, 1913.

Fig. 1.

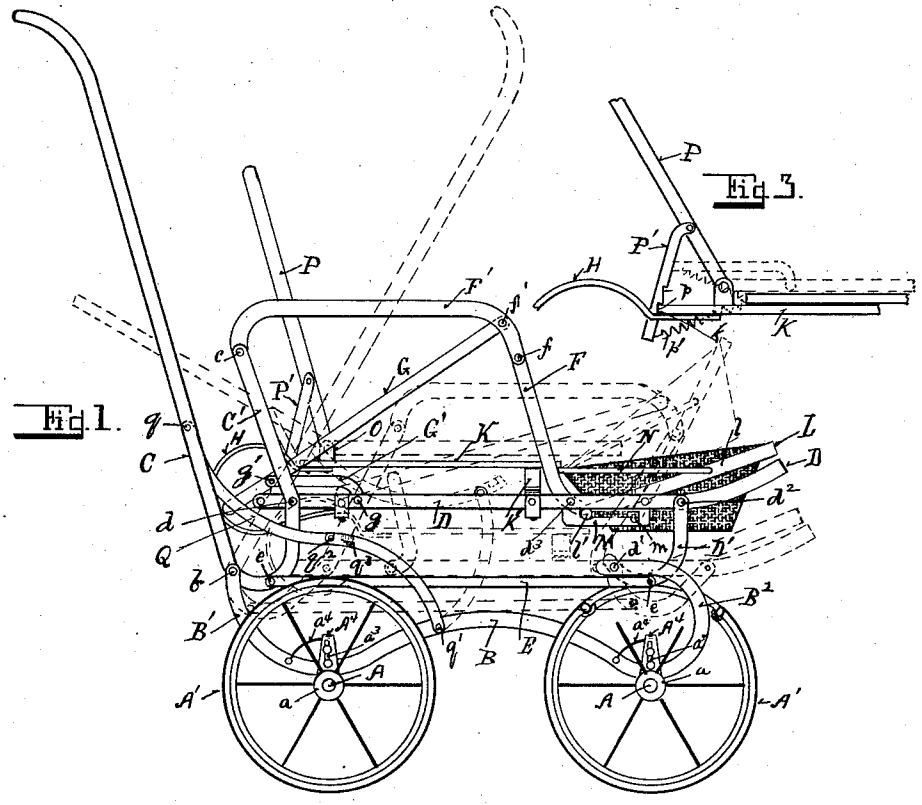


Fig. 3.

Fig. 2.

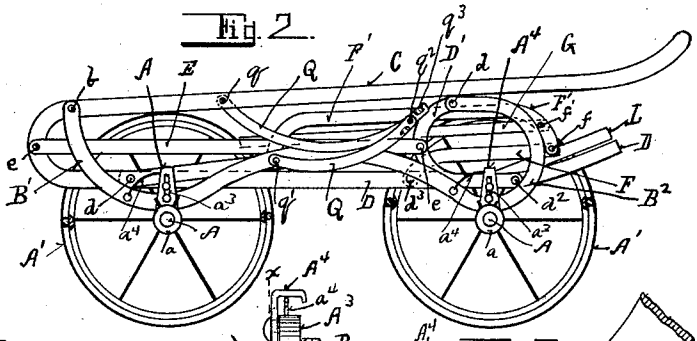


Fig. 4.

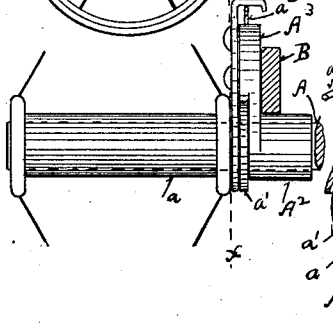
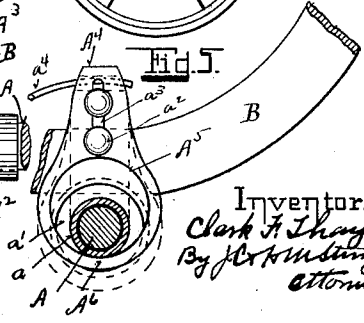


Fig. 5.



Witnesses

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BABY-CARRIAGE.

1,053,455. Specification of Letters Patent. Patented Feb. 18, 1913.

Application filed July 10, 1911. Serial No. 637,625.

To all whom it may concern:

Be it known that I, CLARK F. THAYER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Baby-Carriages; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to perambulators and the object thereof is to construct a baby carriage which, when not in use, may be collapsed and folded so as to occupy but small space.

The features of my invention will appear hereinafter, and are illustrated in the accompanying drawings, in which:

Figure 1 is a side view in elevation of a baby carriage embodying my invention with portions of the near wheels broken away, and showing, by means of broken lines, the same partially collapsed. Fig. 2 is a like view of the same completely collapsed. Fig. 3 is a view of a fragment thereof showing the manner of hinging the back support to the seat of the carriage, and the means for supporting the same at different angles. Fig. 4 is a view of a fragment showing a front view of the wheel securing mechanism. Fig. 5 is a sectional view of the same on the line x—x in Fig. 4.

In these drawings, A, A, indicate the front and rear axles, which may or may not extend transversely from side to side of the carriage, as may be desired, a continuous axle merely adding stability to the structure, but not in any manner affecting the merits of my invention. On the axles, A, A, I place the front and rear wheels A′, A′, which have on the inner ends of the hubs, a, thereof an annular shoulder, a'. Upon the axles, A, I secure sleeves, A^2, having a projection, A^3 thereon. Upon one side of this projection, A^3, I slidably secure a slotted plate, A^4, by means of rivets, a^2, passing through a slot, a^3, therein. This plate, A^4, has through the lower portion thereof an opening, A^5, of sufficient dimension to permit the passage therethrough of the annular shoulder, a', on the inner end of the wheel hub, a.

When placing a wheel, A′, on the axle, A, the slidable plate, A^4, is pressed downward until the annular shoulder, a', on the wheel-hub, will pass through the opening, A^5, when the plate, A^4, may be raised until the lower portion, A^6, thereof engages the annular shoulder, a', which thereby prevents the sliding off of the wheel, A′. To maintain the plate, A^4, in a normally raised position, and yet permit it to be depressed when desired, I provide a spring, a^4, which is adapted to normally maintain said plate in its uppermost position.

It will readily be seen that a reversal of the springs, a^4, and a relative change in the slot, a^3, in the plate, A^4, may be utilized to change the locking position of the plates, A^4 from the uppermost position thereof to their lowermost position, without any change in the idea of means for carrying out the invention disclosed herein.

Upon the sleeves, A^2, and against the projections, A^3, thereon, I secure side-bars, B, one at each side of the carriage, the rear ends, B′, of said bars being bent upwardly, and the front ends B^2, thereof, having an upward and backward bend therein so that the front extremity thereof is somewhat to the rear of the front axle, A, of the carriage. To the rear ends, B′, of the side-bars, B, I pivot handle-bars, C, by means of the pivot, b, said handle-bars, C, having their lower ends bent forward and upward and terminating at the pivot c, at each side of the carriage-body. To the upwardly bent portions of the handle-bars, C, in front of the pivots, b, at each side of the carriage, I pivot the carriage-body frame, D, by means of the pivot, d, the upwardly bent portion, C′, of the handle-bars, C, extending between the pivot, d, and the pivot, c, constituting the rear side-arm support of the carriage. To the front end, B^2, of the side-bar, B, I pivot a J-shaped carriage-body support, D′, by means of the pivot, d', the upper end of the stem of said J-shaped support being pivoted to the front portion of the carriage-body frame, D, at each side of the carriage by means of the pivots, d^2. Extending between the curved lowermost portions of the handle-bars, C, and the J-shaped supports, D′, and pivoted thereto by means of the

pivots, *e e*, are link-bars, E, by means of which the J-shaped supports, D′, at the front of the carriage are made to move in unison with the handle-bars C, when the same are swung forward as shown by broken lines in Fig. 1. Pivoted to the intermediate portion of the side-bar, D, of the carriage-body frame, at each side of the carriage, by means of a pivot, d^3, are the upwardly extending forward side-arm supports, F, and extending from the pivot, *e*, in the upper end, C′, of the handle-bars C, to the upper ends of the front side-arm supports, F, and pivoted thereto by means of the pivot, *f*, is the side-arm, F, of the carriage.

From a pivot, *f′*, in the front end of each side-arm, F′, there is a diagonal bar, G, the movement of the rear end of which bar during the operation of folding the carriage, as shown by broken lines in Fig. 1, is guided by means of a short bar, G′, pivoted to the side-bar, D, of the carriage-body frame by means of the pivot, *g*, and to the rear end of the bar, G, by means of the pivot, *g′*. The object of these diagonal bars, G, is to support the lower rear corners of flexible filling (not shown) which is usually placed in the space inclosed by the side-arms, C′ F and F′, of the carriage.

To the rear portion of the carriage-body frame side bars, D, I secure semi-circular strap springs, H, in any suitable manner, and to the upper ends thereof I secure the rear end of the carriage seat, K, the front end of the seat, K, being supported upon a spring K′, preferably of the elliptic type, which spring, K′, is supported upon the carriage-body side-bars, D.

To the front end of the seat, K, is secured the rear edge of a tray-shaped foot rest, preferably of flexible material, the front edge of which foot-rest is supported by a U-shaped frame, L, the rear ends of the arms, *l*, of which are supported upon headed studs, *l′*, which are slidably mounted in slotted brackets, M, on the carriage-body side bars, D, and between the front end of the seat, K, and the side arms, *l*, of the support, L, there are braces, N, which are pivoted at each end to the seat, K, and side arm *l*. The slotted bracket, M, is provided with a notch, *m*, in the lower edge of the front end of the slot, so that by raising the front edge of the foot rest frame, L, the headed studs, *l′*, on the arms, *l*, will slide forward in the slotted brackets, M, until they engage the notches, *m*, which will support the foot rest frame, L, in the position thereof shown by broken lines in Fig. 1.

Pivoted upon ears, O, at the rear end of the seat, K, (see Fig. 3) is a back-rest, P, which is held in the position desired by a ratchet brace, P′, provided with notches, *p*, which engage the rear end, *k*, of the seat frame at each side of the carriage. Between the lower ends of the braces, P′, and the rear end of the seat, K, there is a spring *p′*, adapted to retain the braces, P′, in engagement with the rear end *k*, of the seat frame. This arrangement permits the back-rest, P, to be laid back as shown by broken lines in Fig. 1, or to be folded down upon the seat, K, as shown by broken lines in Fig. 3.

To maintain the handle-bars, C, in the position thereof shown by full lines in Fig. 1, I provide braces, Q, which are pivoted to the handle bars, C, by means of the pivot, *q*, and to the side-bar, B, by means of the pivot, *q′*. This brace, Q, is provided with an intermediate hinge pivot, q^2, and with a stop, q^3, adapted to prevent said brace from folding downward.

When it is desired to fold up the carriage, the braces Q, on each side of the carriage are broken upward and the handle-bars, C, are folded forward as indicated by broken lines in Fig. 1, and downward, which folding of the handle-bars, C, will fold the carriage frame from the position thereof shown in Fig. 1, to the completely collapsed position thereof shown in Fig. 2.

Having thus shown and described my invention so as to enable others to construct and utilize the same, what I claim as new and desire to secure by Letters-Patent is:

1. The combination in a baby carriage of wheel axles, wheels on said axles, side-bars supported on said axles having up-turned front and rear ends, handle-bars pivoted to the up-turned rear ends thereof the lower ends of said handle-bars being up-turned to form the rear supports for the side-arms of said carriage, carriage-body supports pivoted to the up-turned front ends of said side-bars, a carriage-body frame intermediately pivoted on said up-turned ends of said handle-bars and on the upper ends of said carriage-body supports, front side-arm supports pivoted on said carriage-body frame, side arm bars pivoted to and extending between the up-turned ends of said handle-bars and said front side-arm supports, and a stop-hinged brace pivoted to and extending between said handle-bars and said first named side-bars, substantially as set forth.

2. The combination in a baby carriage of wheel axles, wheels on said axles, side-bars supported on said axles having up-turned front and rear ends, handle-bars pivoted to the up-turned rear ends thereof, carriage-body supports pivoted on the front and rear up-turned ends of said side-bars, the rear carriage-body supports being integrally secured to said handle-bars, a carriage-body frame pivoted on and supported by said front and rear supports, rear side-arm supports integrally secured to the upper ends of said rear carriage-body supports, front

side-arm supports pivoted to said carriage-body frame, side-arms pivoted on the upper ends of said side-arm supports, link-bars pivoted to and extending between said front and rear carriage-body supports, and hinged braces extending between and pivoted to said side-bars and said handle-bars, substantially as set forth.

3. The combination in a baby carriage of wheel axles, wheels on said axles, side-bars supported on said axles having the front ends thereof curved upward and rearward over the front axles and the rear ends thereof curved upward into the plane of the front ends thereof, J-shaped carriage-body supports pivoted at their toe-points to the ends of said side-bars, a carriage-body frame pivoted to the upper ends of the stems of said J-shaped supports, link-bars pivoted to the intermediate parts of the curved portions of said J-shaped supports, adapted to cause said front and rear carriage-body supports to move in unison, rear side-arm supports integral with and extending upward from the upper ends of the rear J-shaped carriage-body supports, front side-arm supports pivoted to said carriage-body frame, side arms pivoted to and spanning the space between the upper ends of the front and rear side-arm supports, handle-bars integrally secured to the toe-points of the rear J-shaped carriage-body supports, and stop-hinged braces terminally pivoted to said side-bars and said handle-bars, substantially as set forth.

4. The combination in a baby carriage of wheel axles, wheels on said axles, side-bars supported on said axles, carriage-body supports pivoted on said side bars, a carriage-body frame pivoted on and supported by said carriage-body supports, rear side-arm supports integrally secured to the upper ends of said rear carriage-body supports, front side-arm supports pivoted to said carriage-body frame, side arms pivoted to the upper ends of said side-arm supports, link-bars pivoted to and extending between said front and rear carriage-body supports, and means to lock said parts against folding up, substantially as set forth.

In testimony whereof I affix my signature, in presence of two witnesses.

CLARK F. THAYER.

Witnesses:
H. M. STURGEON,
CHAS. H. ENGLISH.