

June 3, 1941.

S. HENDRICKSON

2,244,154

BABY CARRIAGE

Filed Jan. 6, 1939

2 Sheets-Sheet 1

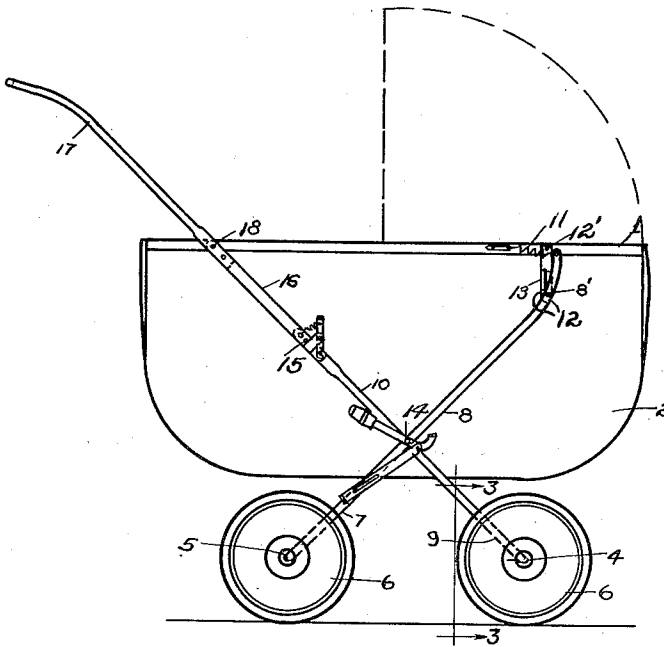


Fig. 1

Fig. 2

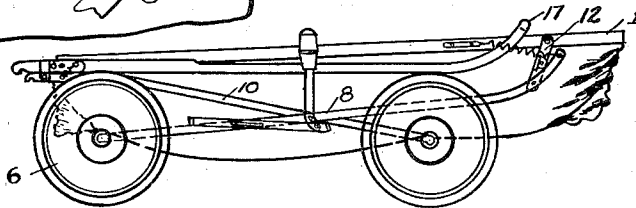
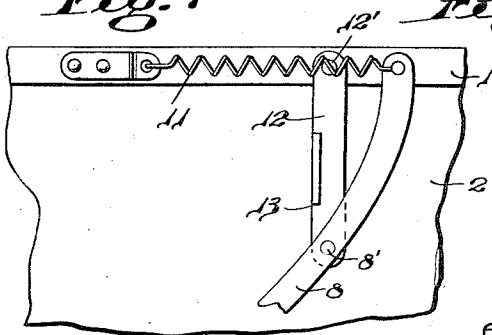


Fig. 3

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2 Sheets-Sheet 2

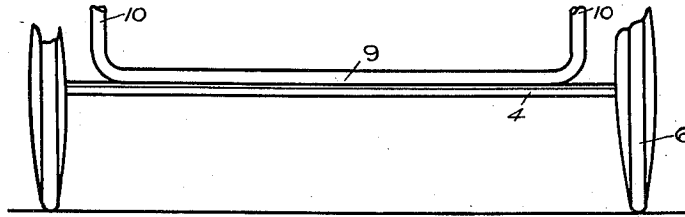


Fig 3

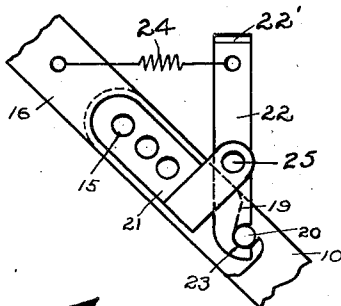


Fig. 4

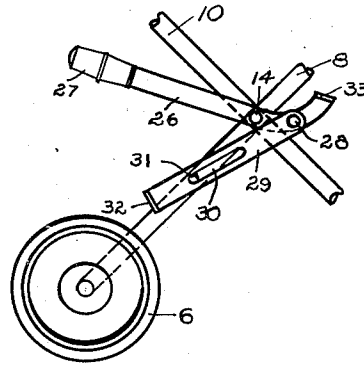


Fig 5

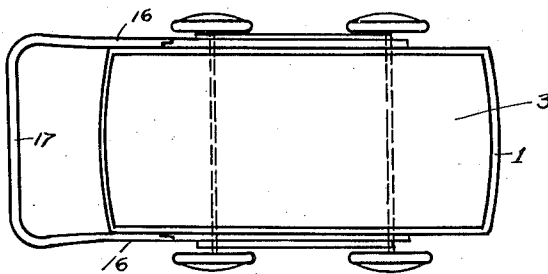


Fig 6

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UNITED STATES PATENT OFFICE

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BABY CARRIAGE

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6 Claims. (Cl. 280—41)

The present invention relates to baby carriages, and particularly to a carriage of the folding type, which is adapted to provide a resilient support for the carriage body.

In prior devices of this character, the extensible structure by which the carriage is collapsed or extended for use, has been connected to the axles by a resilient supporting structure in order that the body may be resiliently supported. Such an arrangement is entirely satisfactory, but involves the interposition of carrying elements for the axle and the springs for obtaining the resilient connection between the axle and the extensible structure. The principal object of the present invention is to avoid the above objections by incorporating the resilient structure as a part of the extensible elements by which the carriage may be collapsed.

Other and further objects and advantages of the invention will more fully appear from the following detailed description taken in connection with the accompanying drawings, in which—

Fig. 1 is a side elevation of a carriage embodying the invention.

Fig. 2 is a side elevation of the carriage when collapsed.

Fig. 3 is a sectional view, substantially along the line 3—3 of Fig. 1.

Fig. 4 is a side elevation on a somewhat larger scale than Fig. 1, of the latch.

Fig. 5 is a side elevation on a somewhat larger scale, of the brake mechanism.

Fig. 6 is a plan view of the carriage.

Fig. 7 is a fragmentary side elevation on a larger scale of the resilient connection between the running gear and the carriage body.

With reference first to Fig. 6, the carriage body has a substantially rectangular frame 1, from which are suspended the side walls 2 and bottom wall 3, forming part of the body. The side walls are of a flexible material, to permit collapsing of the body when the carriage is folded, as shown in Fig. 2.

The body is mounted on a supporting frame which is arranged to be extended to permit use of the carriage, as in Fig. 1, or collapsed, as in Fig. 2, so that the carriage will occupy very little space when not in use. As best shown in Fig. 1, the supporting frame embodies front and rear axles 4 and 5, on the opposite ends of which are positioned wheels 6. Integrally connected to the rear axle is a U-shaped element 7, having upwardly extending arms 8, one of which is positioned on each side of the body. A similarly shaped element 9 is positively connected to the

front axle, and has upwardly extending arms 10 positioned on opposite sides of the carriage body.

As shown in Fig. 1, the upper end of each arm 8 is connected by a coil spring 11 to the frame 1, and is also supported in predetermined relation to the frame 1 by a link 12, pivotally connected at its upper end to the frame, as by a pin 12', and at its lower end to the arm 8 by a pin 10, 8' a short distance below the upper end of the arm. A projecting lug 13 on the link 12, limits the relative movement between these parts by engagement with the side of the arm 8.

The arms 8 and 10, on opposite sides of the carriage, are pivotally connected at their intersection by a pin 14, and the upper end of each arm 10 is pivoted by a pin 15, see also Fig. 4, to the lower end of one arm 16. The handle 17, which, as shown in Fig. 6, is substantially U-shaped, and has the arms 16 extending downwardly on opposite sides of the carriage body. Each arm of the handle is pivoted at 18 to the frame 1, this pivotal point 18 being above the pivot pin 15.

To hold the supporting frame in extended position, the arms 10 and handle 17 are held against relative movement, when extended, by a latch, best shown in Fig. 4. With reference to this figure, the arm 16 of the handle extends downwardly below the pivot pin 15, and has a notch 19 engageable with a pin 20 on the arm 10. The arm 16 of the handle has pivoted thereto on a lug 21, a latch member 22, which has a notch 23 in the lower end thereof in a position to engage the pin 20. The notches 19 and 23 are out of line with each other, as shown, so that when the pin engages the bases of the notches, the pin cannot be released without a turning movement of the latch member 22 clockwise. The latch member is normally held in the pin-engaging position shown, by a coil spring 24. Obviously, the pivot pin 25 which supports the latch 22 is spaced from a line connecting the notch 19 and the pin 15 so that the notches 19 and 23 will be out of alignment.

With reference to Fig. 5, the pivot pin 14 which connects the arms 8 and 10, also has mounted thereon a brake arm 26, having an upwardly extending handle 27. Pivoted to the brake arm on a pin 28 adjacent to the pivot pin 14, is a brake bar 29, having a slot 30 engageable over a pin 31 on the arm 8. At the lower end of the bar is a laterally extending element 32 in a position for engagement with the periphery of one of the wheels 6. As will be ap-

parent from Fig. 5, when the brake arm is rocked forwardly from the position shown, the brake bar is moved downwardly to engage the wheel, and the brake is locked in braking position by the toggle effect of the connection between the brake arm and the bar. The brake arm has a laterally extending projection 33 on the end thereof, which engages with the side of the bar to retain the elements in braking position, the engagement between the bar and projection 33 being effective after the pivot pin 28 is slightly above a line connecting the element 32 and the pivot pin 14.

In collapsing the extensible structure from the extended position of Fig. 1, the upper ends of the latch members 22, which have laterally extending lugs 22', are pushed forwardly to disengage the notch 23 from the pin 20. The handle 17 may then be rocked forwardly about the axis of the pin 18, thereby allowing the arms 8 and 10 to move relative to each other substantially into the position of Fig. 2. The arm 8 pivots relative to the link 12, and the link, as shown, may pivot slightly as the carriage collapses. From the collapsed position of Fig. 2, the carriage may be extended for use by an upward and backward movement of the handle 17, as will be apparent. As the carriage reaches extended position the pin 20 engages with the face of the latch member 22 and causes it to swing clockwise to allow the pin to enter the notch 19. The coil spring 24 then returns the latch member 22 to locking position. As the brake structure is supported entirely on the arm 8 it will be obvious that the collapsing of the carriage will have no effect thereon.

When the carriage is extended for use it will be apparent that the coil springs 11 act as a cushioning means for the carriage, since, as weight is applied to the carriage, the upper ends of the arms 8 and 10 tend to move away from each other so that the arm 8 moves relative to the carriage body through the interconnection of the coil spring 11 and link 12. The carriage body is thus resiliently supported on the frame.

I claim:

1. A supporting frame for carriage bodies, comprising front and rear axles, a pair of pivotally connected side arms on each side of the carriage body, the lower end of each arm being connected to an axle, a handle pivoted to the carriage body and pivotally connected to one of said side arms, a resilient connection between the upper end of the other side arm and the carriage body, and a connecting link between the carriage body and said other side arm at a point spaced from the resilient connection.

2. A supporting frame for carriage bodies, comprising front and rear axles, a pair of pivotally connected side arms on each side of the carriage body, the lower end of each arm being connected to an axle, a resilient connection between the upper end of one of said side arms and carriage body, and a link extending from the carriage body to said side arm at a point spaced from the resilient connection.

3. A supporting frame for carriage bodies, comprising front and rear axles, a pair of pivotally connected side arms on each side of the carriage body, the lower end of each arm being connected to an axle, a resilient connection between the upper end of one of said side arms and carriage body, a link extending from the carriage body to said side arm at a point spaced from the resilient connection, and means for supporting the upper end of the other side arm in predetermined relation to the carriage body.

4. A collapsible supporting frame for carriage bodies, comprising front and rear axles, a pair of pivotally connected side arms on each side of the carriage body, the lower ends of said arms being connected to the axles, a link providing a connection between the body and one of the side arms, said link being pivotally connected to said side arm, and resilient means for holding said link and arm in predetermined relation to each other.

5. A collapsible supporting frame for carriage bodies, comprising front and rear axles, a pair of pivotally connected side arms on each side of the carriage body, the lower ends of said arms being connected to the axles, a link providing a connection between the body and one of the side arms, said link being pivotally connected to said side arm, resilient means for holding said link and arm in predetermined relation to each other, a handle pivoted to the carriage body and pivotally connected to the other of said side arms, and a latch for holding said handle and said other side arm releasable in a predetermined relation to each other.

6. A supporting frame for carriage bodies, comprising front and rear axles, a pair of pivotally connected side arms on each side of the carriage body, the lower end of each arm being connected to an axle, a resilient connection between the upper end of one side arm and the carriage body, a connecting link between the carriage body and said one side arm at a point spaced from the resilient connection, and a handle pivoted to one of said side arms.

SEVERINE HENDRICKSON.