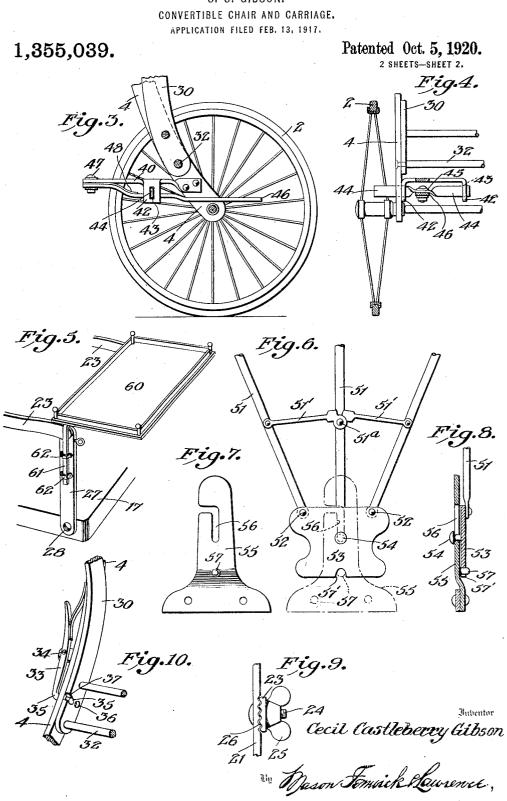


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CONVERTIBLE CHAIR AND CARRIAGE.

1,355,039.

Specification of Letters Patent.

Patented Oct. 5, 1920.

Application filed February 13, 1917. Serial No. 148,421.

To all whom it may concern:

Be it known that I, CECIL CASTLEBERRY GIBSON, a citizen of the United States, residing at Atlanta, in the county of Fulton

- 5 and State of Georgia, have invented certain new and useful Improvements in Con-vertible Chairs and Carriages; and I do hereby declare the following to be a full, clear, and exact description of the invention, 10 such as will enable others skilled in the art
- to which it appertains to make and use the same.

This invention relates to a convertible chair and carriage.

15It is an object of the present invention to provide an article which may be readily adjusted for use in one instance as a gocart or carriage, and which may also be adjusted or readily converted into a condi-20 tion for use as a high chair.

A further object of the present invention is to provide for the compact arrangement of the elements in their several positions and to provide for the secure connection of

- 25 the parts in adjusted relation to one another when the vehicle has been collapsed or extended to form either a carriage or a chair. With these and other objects in view, as will be made manifest in the following
- 30 specification, the invention consists in the combination of the parts, details of construction, and in the arrangement of the elements, and in the form of the vehicle herein embodied and as shown in the draw-35 ing:

Figure 1 illustrates the vehicle, as adjusted in extended or elevated position, in perspective view looking from the front and adaptable as a chair.

40 Fig. 2 is a perspective view looking from the rear of the vehicle showing it in its collapsed or carriage forming position.

Fig. 3 is a side elevation of the brake as applied to the right hand wheel at the rear 45 end of the vehicle, and

Fig. 4 is a front end elevation of the brake mechanism.

Fig. 5 is a perspective view of fragments of the seat frame and the arms thereof 50 shown as provided with a detachable tray.

Fig. 6 is a detail view of the pivot plate to which the detachable top structure is connected.

Fig. 7 is an elevational view of the bear-55 ing or pivot plate for the top structure.

Fig. 8 is a detail view partially in section

and partially in edge elevation showing the assembled top plate and its bearing member.

Fig. 9 is a detail fragmentary view of the clamping means for securing the adjustable 60 back and horizontal arm in adjusted position.

Fig. 10 is a detail of the handle lock.

In the illustrated embodiment of the invention there is provided a suitable set of 65 wheels 2 which are mounted on appropriate axles 3, the rear axle being provided with suitable bearings in the lower ends of curved side bars 4-4 which are provided at their intermediate portion with a cross rod 5 70 which may be threaded at each end as at 6 to receive thumb screws or other suitable clamping devices 7. The upper ends of the side bars 4 are shown as pivotally connected as at 8 to a suitable form of frame 9 herein 75 illustrated as consisting of angle iron bent into rectangular form, the pivots 8 being disposed at the front end of the side members of this frame 9 and to the rear ends of the side members thereof there is pivoted at 80 10 on each side the contiguous ends of for-wardly extending bars 11 which have mounted upon their front ends wheels 12 of suitable size, the wheels 12 and 2 preferably being of similar design and of the same 85 size.

The front side bars 11 are shown as slotted for a suitable portion of their length from adjacent their pivots 10 to receive slidably the projecting ends of the cross rod 5 90 upon which the clamping nut or device 7 is mounted. The front bars 11 and the rear bars 4 are slightly curved throughout their length and the latter are shown as offset at their front ends where they are pivoted 95 upon the frame 9 so as to substantially overlap the rearwardly extending ends of the front bars 11, and thereby permit the cross rod 5 to slide in the slots 13 of the front bars to permit the frame 9 to be adjusted 100 from a lowermost position as shown in Fig. 2 to an uppermost position as shown in Fig. 1, in the latter instance forming a chair. In either of the positions the clamp nuts 7 on the threaded ends 6 of the cross 105 rod 5 are adapted to be tightened up so as to securely hold the side bars in their relative adjusted position.

There is mounted upon the frame 9 at suitable positions thereon a set of compressi- 110 ble springs 15 through which there project posts or stude 16 which are shown as ar-

ranged substantially at the corners of a suitable seat 17 which is here shown as of approximately the same area as the frame 9 and the posts or studs 16 are adapted to yieldably pass, when a load is superimposed upon the springs 15, through the seat 17, freely down through suitable apertures 16' provided therefor in the top member of the main frame 9, thus providing for a yielding 10 support for the seaf 17.

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One of the features of the present invention resides in the provision of a foldable arm and back structure which is connected to the seat 17 and in the form of the 15 folding back and arm structure here shown the back consists of a suitable back frame 20 having upright side stiles 21, the lower ends of which are pivoted at 22 to the rear corners of the seat 17 to permit the back to 20 be swung rearwardly or forwardly to the desired angle and to be folded down snugly above the seat 17 to secure compactness of the vehicle when it is out of use.

To the stiles 21 of the back frame 20 at a 25 suitable point above its pivots 22 there is connected a pair of arms 23 the rear ends of which pass over pivot screws 24 upon which are threaded clamp nuts 25 whereby the back and its arms 23 may be readily clamped 30 together to hold the same in any of its ad-justed positions. As shown in Fig. 9, the contacting surfaces of the side stiles 21 and the side arms 23 at the zone of the pivot screws 24 at which they are connected is 35 preferably burred, as shown at 26, so as to insure the positive locking engagement of these members and to prevent accidental movement thereof when they are in use. The forward ends of the arms 23 are connected 40 pivotally to the upper ends of the upright links 27 which may be of such design as to allow the side arms 23 to swing down closely to the upper plane of the seat 17 so as to permit the compact folding of the arm and 45 back structure; the lower ends of the link 27 being pivotally connected at 28 to the front and side portions of the seat 17.

To facilitate the propulsion or movement of the vehicle in either of its positions, 50 whether extended as a chair or collapsed as a carriage, there is provided a handle 30 consisting of a pair of upright side members connected by a purchase or grip portion 31 at the top, the lower end of the side bars 55 of the handle 30 being pivoted upon a cross tie rod 32, the ends of which are securely mounted in the lower projecting ends of the rear side bars 4. For the purpose of locking the pivotal handle 30 in either of the ad-60 justed positions of the vehicle, there is provided upon one of the rear side bars 4 a latch 33 which is pivoted at 34 and has an inwardly turned hook or point 35 passing through a respective aperture 36 in the lower 65 end of the side bar 4 in which it is mounted,

this hook being adapted to lock with one or another of a series of slots or openings 37 which are formed for its reception in the adjacent side bar of the handle 30, as clearly shown in Fig. 10. For instance, when the ve- 70 hicle is adjusted in its collapsed or carriage forming position, the spring latch or bolt 53 is adapted to engage at its point or hook 35 in an aperture 37 to hold the handle 30 in a position adjacent the back of the body struc- 75 ture of the vehicle, and when the parts are adjusted in extended position so as to form a chair, the hook 35 is adapted to engage in the upper or first aperture 37' in the side bar of the handle. 80

In order to prevent the accidental rolling movement of the vehicle in either of its adjusted positions when it is so desired, there is provided a simple and suitable brake mechanism adapted to engage the wheels of 85 the frame so as to prevent their rotation relative to the frame. In its present embodiment this brake is shown as including a bracket member 40, one ear of which is riveted at 41 to the lower end of one of the 90 rear side bars 4 as illustrated in Fig. 3, the bracket 40 having a pair of downwardly extending arms or bearing parts 42 which are provided with vertically disposed slots 43 in alinement with each other. Transversely 95 disposed in these slots and shiftable therein there is provided a slide bolt having at its ends ears 44 fitting the seats or slots 43, the central portion of the bolt 44 being twisted or flattened as at 45, Fig. 4, and to it is con- 100 nected an operating lever 46 which projects rearwardly beyond the axles of the rear wheels so as to be engaged by the toe of the foot of the operator of the vehicle, and enable the forward end of the lever to be 105 swung on its pivot 47, which is connected to the rear or inner end of the bracket arm 40, thereby transversely shifting the cross bolt 44 either into projected position between the spokes of the adjacent wheel, or into a 110 retracted position therefrom, in either of which positions the swinging lever 46 is adapted to be frictionally maintained against play and accidental movement through means of a suitable friction device as a leaf 115 spring 48 resting upon the upper surface of the lever 46.

When the vehicle is adjusted for use as a carriage, it is preferable to provide a suitable cover or top portion for the same, and 120 I have devised and provide a detachable cover which may be readily secured when necessary to a convenient part of the vehicle. In the present form of the invention I have shown the top 50 as provided with 12 a series of bows 51 which are pivotally connected at their lower ends at 52 to a suitable plate 53, one at each side of the bow, these plates having a centrally outwardly projecting button 54, which, when it is desired to 13

attach the cover to the vehicle, is adapted to be inserted in interlocking relation upon fixed brackets or bearings shown in detail in Fig. 7. Each of these bearings 55 is pro-5 vided with a lower broadened portion adapted to be secured rigidly to a convenient portion of the body structure of the vehicle, and preferably to the horizontal arms 23 thereof, and each bearing is provided with a slot 56 10 into which the body of the button 54 of each plate 53 is adapted to be inserted with a transverse movement across the upper portion of the slot, and then pressed downwardly through the vertical portion of the 15 slot until the plates 53 engage at their lower edges over stop and lock pins 57 which are provided to engage with indents or seats 57' at the lower edges of the plates 53, this causing the plates to interlock with their 20 respective bearing members 55 and be held detachably in engagement therewith. Thus it will be seen that the top structure or cover for the carriage body may be readily connected to the bearings 55 which are adapted 25 to be permanently secured to the carriage arms, and if at any time it is desired to collapse or fold the cover into a rearward unused position it is simply necessary to slightly lift the cover with its plates 53 up-30 wardly along the slots 56 in the bearings 55 until the notches 57' disengage their coacting pins 57 whereupon the plates 53 may be tilted rearwardly about the shanks of their buttons 54 which will rotate in the slots 56 35 to permit the rearward tilting of the cover. To facilitate the compact folding and collapsing of the cover and locking it when in extended position, the bows 51-51 are shown as provided with a toggle link connection 40 51', the outer ends of which are pivoted to the outer bow members, and the inner ends of which are connected at a knuckle joint as at 51^a, which, when the bows are extended for covering the vehicle, form a lock for 45 preventing the collapsing of the cover. When desired the cover may be entirely removed by simply withdrawing the plates 53 from their mounting on the bearings 55 by moving the plates so that their ends 54 pass 50 upwardly through the slots 56 from which they may be removed by transverse move-

- ment to withdraw them through the mouths of the slots. When the article is adjusted into posi-55 tion for use as a high chair, provision is made for the connection thereto of any suitable form of tray, as illustrated, for instance, at 60, the latter being provided with a pair of downwardly extending legs 61, one at
- of downwardly extending legs 61, one at 60 each side of the tray, these being adapted to enter suitable loops or socket portions 62 shown, for instance, in Fig. 5, as provided upon the front vertical link members 27 of the arm structure.

65 To provide a foot-rest for the infant using

the vehicle when it is adjusted as a carriage, there may be provided and suitably mounted upon the body structure or frame of the vehicle an adjustable foot-rest or support which preferably I have embodied in the 70form of a drawer 65 of suitable form and preferably of such an area in plan that it may be concealed when out of use by inward adjustment beneath the seat of the vehicle. To provide for this adjustment, one simple 75 means consists in providing upon the sides of the drawer 65 suitable pins 66 having heads on their outer ends, the bodies of the pins, a pair of which is provided on each side of the drawer, running in a suitable 80 supporting track or cam 67, one of which is secured on each side of the bottom or lower surface of the seat 17. These cam or track plates 77 are shown as provided with a slotted cam-way 68 having a rearward, hori- 85 zontal portion and a forwardly, outwardly inclined portion 68', the pins 66 on each side of the drawer being disposed in such relation that when the drawer is pushed rearwardly they will travel in the plane of 90 the horizontal portion of the cam-way or slot and hold the drawer in horizontal position beneath the seat 17. When it is desired to utilize the drawer as a foot-rest it may be projected forwardly by drawing it from 95 its concealed position beneath the seat 17 when the front pin 66 of each pair will pass downwardly into the forwardly inclined portion 68 of the cam-ways, while the rear pin of each pair will rest in the forward 100 upper portion of the slots 68. In this position the front part of the drawer is exposed beneath the front edge of the seat so as to permit the infant's feet to rest therein. When out of use, the foot-rest, which is pref- 105 erably formed in the shape of a drawer, may be utilized as a receptacle for the baby's clothes, etc., and for small blankets, or cover, or the like.

In operation of the device, assuming that 110 the parts have been extended so that it is in the form of a high chair with the handle 30 locked in its position close to the back of the chair at which time the latch or bolt 33 engages the first aperture 37 in the side 115 bar of the handle, then by pressing the latch 33 so as to disengage its hook 35 from engagement with the side bar of the handle. the latter may be swung forwardly until the aperture 37' is in alinement with the 120 hook of the latch when it will be latched in this position, and then by unclamping or loosening the clamping nuts 7 on the end of the cross rod 5, and by downward pressure upon the back or seat of the vehicle, this 125 portion moves downwardly so that the forwardly extending side bars 11 are projected forwardly and the cross rod 5 passes rearwardly through the slots in the front bars 11 to a position in the rear upper end there- 130

of when the front end of the frame 9 of the body structure will rest upon the horizontally disposed portion of the front bars 11 and the rear end of the frame will rest upon the cross bar 5 and the parts may be locked in this position by setting up the clamp nuts 7 on the end of the cross bar. It will be understood that by a reversal of this method of operation when the latch 33 10 is disengaged from the contiguous portion of the handle-bar, then this may be gripped firmly and by an upward pull on the frame structure of the vehicle the side bars are so moved relatively to each other that the cross 15 bar 5 swings downwardly toward the lower end of the slots of the front bars 11 when they may be locked in that position. The handle 30 is then swung upwardly into position close behind the raised seat portion 20 and locked by the latch 33.

What is claimed as new is:

 In a convertible carriage and chair, the combination of a frame, adjustable wheeled legs attached to the frame for varying the
height thereof, a seat supported above said frame, the front edge of the frame projecting forward of the seat to constitute a foot rest, an angularly adjustable back supported on the seat, a drawer slidably mounted on
the under side of the seat, means whereby

the front edge of the drawer is depressed to a level lower than the under side of the seat when said drawer is wide open, substantially as described.

2. In a convertible carriage and chair, a 35 frame, wheel supported crossed legs pivoted to the frame and adapted to be secured at different angular positions whereby to raise and lower the frame, a handle having curved members with the concave sides rearward, 40 pivoted to the rear legs adjacent their lower ends, and means coacting between a handle member and one of the rear legs adjacent the point of connection of the handle thereto whereby the handle may be rigidly se- 45 cured in folded position adjacent the frame when the latter is elevated or extended rearward when the frame is lowered, said means comprising a bolt on one of said members and two locking devices on the other of 50 said members, each of said locking devices being equidistant from the pivotal point of the handle, substantially as described.

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

CECIL CASTLEBERRY GIBSON.

Witnesses: John L. Eberhardt, S. W. Hewin.