This invention relates to vehicular toys for children and in particular to collapsible vehicular toys which simulate real vehicles as automobiles, trucks and the like.

Therefore, an important object of my invention is a vehicular toy for children which is especially designed to amuse and entertain children.

Still another object is a vehicular toy which realistically represents a real self-propelled vehicle such as an automobile or truck and which is collapsible in nature and readily broken down and set up for use for convenience in storage, transportation and handling.

Still another object is a vehicular toy of the class described which is sufficiently simple in design and operation to permit even small children to set up and break down said vehicular toy.

Still another object is a collapsible vehicular toy of the class described which sufficiently incorporates the visible characteristic elements of a truck or automobile to permit children operating the same to readily imagine that they are driving or using a vehicle comparable to the real power-driven vehicles upon which they are modeled.

A further object is an ambulatory collapsible vehicular toy of the class described which is adapted to seat a passenger therewithin and to be propelled by the movements of the legs of said passenger or by the pushing thereof by a second person outside said vehicle.

These and other objects and advantages of my invention will more fully appear from the following description made in connection with accompanying drawings wherein like reference characters refer to the same or similar parts throughout the several views and in which:

FIG. 1 is a perspective view of the vehicular toy of my invention in fully set up condition;

FIG. 2 is a perspective view of the vehicular toy of my invention in partially collapsed condition;

FIG. 3 is a perspective view of the vehicular toy of my invention in completely collapsed folded condition;

FIG. 4 is a longitudinal vertical section taken on the line 4—4 of FIG. 1;

FIG. 5 is a transverse vertical section as taken along the line 5—5 of FIG. 4;

FIG. 6 is a horizontal section taken along the line 6—6 of FIG. 4; and

FIG. 7 is a detailed sectional view taken on the line 7—7 of FIG. 5.

Reference is now made to the accompanying drawings for a more detailed description of a preferred embodiment of my invention. The vehicular toy of my invention comprises a pair of side wall frames which include a pair of horizontally disposed elongate frame or supporting members 10, a pair of vertically disposed rear corner posts or standards 11 mounted atop the frame members 10, and a pair of elongate front corner members 12 which are inclined from the vertical and disposed diagonally to the rear as best seen in FIG. 4 to better depict or represent the body design of a conventional automobile truck which is the particular form of my invention illustrated is intended to simulate.

The pair of wall frames defined by the aforementioned frame members 10, 11 and 12 have paneling 13 overlying said frames and securely fixed thereto to provide the sides of the vehicle. Each of these panels in the form shown are provided with cutout portions 14 which provide doorways for entering and leaving the vehicle. The sides of the paneling 13 may also be provided with a legend or indicia such as the word “Milk” as shown in the accompanying drawings to more clearly indicate the type of truck or vehicle which is intended to be represented by the toy of my invention and to render the same more realistic to the user.

Each of the sides 13 is movably supported on a pair of wheels which include the fixedly mounted rear wheels 15 which are mounted on hanger members 16 which in turn are mounted on the frame by means of suitable mounting members or brackets 17. The forward end of the side walls 13 are provided with caster or swivel wheels 18 which are mounted on the inside of the side panels by means of suitable mounting members 19. The lower marginal edges of the side walls 13 are provided with suitable cutout portions 20 and 21 for receiving and partially enclosing the rear and front wheels respectively and to give greater freedom of movement laterally to the caster wheels 18.

The side walls 13 are hinged and foldably interconnected for respective lateral expanding and contracting movement by means of a pair of front panels 22 and 23 and by a pair of similar back panels 24. The front panels 22 and back panels 23 are each provided with horizontally disposed bracing members 24 disposed adjacent the top and bottom marginal edges of each of said panels 22 and 23. The front and back panels 22 and 23 are hingedly connected to their respective front and back corner post members 12 and 11 respectively by means of suitable hinge elements 25 which permit the panels 22 and 23 to swing inwardly against their respective adjacent side panels 13. The panels 22 and the panels 23 are hingedly connected along their adjacent inner marginal edges by means of suitable hinge elements 26 which permit the panels to be folded inwardly so that the outer faces thereof overlap and are opposed to one another when in collapsed condition.

The outer faces of the front panels 22 are provided with artistic indicia representing headlights as at 27 and grill work 28 to more accurately depict and simulate a real truck. The front and back panels 22 and 23 respectively are adapted to enclose only the lower portion of the body of the vehicle leaving the cutouts or openings 29 and 30 providing a front window and back window respectively. The height of the openings 29 and 30 measured between the roof and the top marginal edge of the panels 22 and 23 is preferably equal to or greater than the width of the individual roof panels 31 hereinafter to be described to prevent the roof panels from interfering with the front panels 22 and back panels 23 when in collapsed, folded condition.

The tops of the side walls 13 are foldably or collapsibly interconnected in much the same fashion as the front and back marginal edges by means of a pair of roof panels 31 which are mounted on and supported by horizontally disposed bracing members 32 disposed adjacent the frame and back marginal edges of said panels. The edges of the panels 31 being hingedly mounted on the front and back corner posts by means of hinge elements 33 for inwardly swinging movement of said panels 31 against the sides 13, the adjacent opposing inner marginal edges of the roof panels 31 being hingedly interconnected by suitable hinge elements 34 for outward or swinging movement therewith to permit the roof panels to be collapsed or folded inwardly so that in collapsed position the outer faces thereof are disposed in opposition to one another as best seen in FIG. 3.

The roof panels 31 and the front and back panels 22 and 23 respectively are provided with suitable latch elements 35 which are easily operable and which, as shown, comprise a pivotally mounted arm or lever member 36 pivotally mounted on one of the adjacent
panels and preferably the bracing members therefore and a female arm receiving bracket 37 mounted on the adjacent brace to detachably fix the collapsible or foldable panels in rigid unfolded condition during use. Thus, the operation of the latch elements are extremely simple and capable of being operated by even a small child, the arms 36 being simply swung into receiving engagement with the brackets 37 to lock the panels in place during use and the arms are simply swung out of engagement with the bracket 37 to enable the panels to be collapsed into a completely folded condition as shown in FIG. 3.

The vehicle is also provided with a bottom panel or seat 38 which is hingedly connected to one of the sides by means of suitable hinge elements 39 which are preferably mounted on one of the horizontal side frame members 10, to permit the bottom panel 38 to be swung upwardly against the side panel on which it is hingedly mounted to place the vehicle in collapsed or folded condition. When unfolded, the side of the seat member 38 opposes the hinged side rest on the opposing vertical frame member 10 to provide a solid support for the floor 38 and provide a generally rigid construction for the vehicle. The seat member 38 has an enlarged seat portion 38a which may provide a seat for the child using the vehicle and may also serve as a small seat for a smaller child or as a passenger carried by said vehicle. The seat member 38 is also provided with a pair of enlarged cutout portions 40 for receiving the legs of the child using the vehicle to permit the child to propell the same, said cutouts 40 defining a narrow longitudinally disposed center strip 38b which is connected to a narrow transversely disposed front strip 38c which front strip 38c may serve as a foot rest for the user particularly when the vehicle is being pushed outwardly by another party.

An artificial control panel or dash is provided inwardly of the vehicle by means of a pair of corresponding dash panels 41 which in mounted condition are disposed diagonally between the front panels 22 and the seat member 38 as best seen in FIG. 4, said panels 41 being hingedly connected individually to the inner marginal edges of the front strip 38c by hinge elements 45, said panels 41 being interconnected for simultaneous movement by means of a connecting rod 42 extending therebetween. The inner opposed marginal edges in panels 41 each support a half of a steering wheel 43 which is disposed perpendicularly thereto and presented rearward at approximately the same angle to a person seated in the vehicle in driving position as a real steering wheel would be on a real automobile or truck.

The dash panels are detachably fixed in position during use by engagement with an offset portion 44 provided on the bottom side of the bracing 24 which permits the upper edges of the panels 41 to be pressed therewith against the same and the front panels supporting same outwardly a slight distance until the upper edges of the panels 41 are seated in the offset recess provided by the bracing 24 to lock the same therewith. To discourage the same, a slight forward pressure is simply applied to the front panel 22 together with a simultaneous upward pull on the dash panels 41 to disengage them from the offset and brace 24 and permit the same to be swung or folded against the flooring 38 in such fashion that the dash panels 41 fit into the recesses provided by the cutouts 40 to present a substantially flush condition therewith, the dash panels 41 then being folded up against the side panel 13 by simultaneous lifting thereof with the seat member 38 to permit the entire vehicle to be collapsed to as narrow a thickness as possible. The dash panels 41 are prevented from falling through the cutouts 40 by the rod 42 which rests on the center strip 38b and supports the panels 41 thereby.

From the foregoing description the operation of the vehicular toy of my invention is obvious. To unfold or collapse the vehicle from the set up condition as shown in FIG. 1, the latch elements 35 provided on the front, back and roof are simply disengaged, the dash panel is disengaged from bracing members 24 and folded into the cutout portions of the flooring 38 and the entire floor together with the dash panel is raised against the inner face of one of the side panels 13, the front and back panels are folded inwardly and the roof is folded downwardly thereby causing the side panels 13 to be drawn together to form the compact narrow package or unit best illustrated in FIG. 3 the front, back, roof, seat and dash being disposed or nested between said side walls 13 in side by side relationship therewith when the vehicle is in the collapsed condition and the sides of the vehicle are entirely nested together within the limits of the width of the front of the package. It will be obvious to those skilled in the art that the package or unit may be formed in a variety of different shapes and sizes in keeping with the requirements of the particular uses to which the toy is put and that the side walls may be made of any suitable material and that the vehicle may be made with an upper portion built above the body 22 and converting the same to the form of a vehicle with legs extending downwardly through the cutout 40 to propel the vehicle themselves or they may rest their feet on the center strip 38c for comfort if they are to be pushed by a person on the outside. The children may grasp the steering wheel 43 to pretend to be driving the vehicle and the caster wheels 16 permit the front end of the vehicle to be turned from side to side by suitable directional or turning movement of the vehicle in that direction. The child, if he desires, may also stand in the vehicle and walk the vehicle around and he may also carry a passenger therein who may sit on the rear portion of the back seat 38a.

From the foregoing, the advantages of my invention are readily apparent. It can be seen that a vehicular toy such as the one herein described would be exceedingly attractive to children and present them with hours of entertainment and amusement. In addition, the same provides good exercise for the children and is especially suitable for and attractive to children who have recently learned to walk and also may be used to strengthen the child's legs and enable him to learn to walk by providing a mobile supporting structure to prevent his falling while learning to walk.

In addition, it can be seen that a device such as the one described may be readily and inexpensively made of strong light-weight material and assembled in easy fashion to present an inexpensive vehicular toy. The collapsible or foldable feature of the vehicle is also especially attractive since it permits the same to be readily collapsed and transported from place to place in an automobile or the like and also be collapsed into a small compact package for storage in the home when not in use, which is a real advantage to those homes in which storage space is a real problem and which are probably already over-crowded with other toys which are not collapsible and require a great deal of storage space. The collapsible or foldable feature of the vehicle is also attractive in the warehousing of the toy prior to the sale thereof and is also very attractive from a shipment point of view since the compact nature of the package would materially reduce the cost of shipping such a vehicle by standard forms of commercial transportation. And finally, the simulated appearance, controls, and movements of a real power driven vehicle is particularly attractive to children who normally get great pleasure in imitating the actions of adults, such as the driving of a vehicle.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the various parts without departing from the scope of my invention.

What I claim is:

1. A mobile vehicular toy comprising an upstanding wall structure defining a cab for seating a person there-
in, said wall structure including opposing side walls collapsibly interconnected by a front wall member for relative contracting movement between said side walls into collapsed side-by-side relationship, a seat member hingedly connected to one of said side walls adjacent the lower end thereof and adapted for folding against said side wall, the said side walls being rigidly connected to each other in the unfolded state, and a dash panel hingedly mounted on said seat member and extending forwardly and upwardly between said seat and said front wall member and adapted for swinging movement against said seat member in folded condition, said front wall member and said side wall members defining an opening facing in the normal direction of travel providing a window for said vehicle.

2. The structure set forth in claim 1 wherein said dash panel is provided with a generally upwardly extending steering wheel member.

3. A mobile vehicular toy for children comprising a body structure having a configuration simulating that of a real power driven vehicle and including a pair of opposing side walls interconnected by opposing front and back wall members and a roof member for relative collapsing lateral movement of said side walls into substantially side-by-side folded relationship, said front, back, and roof members comprising a pair of panel members hingedly connected at their outer ends to said side walls for inward swinging movement thereagainst and hingedly connected at their inner ends to each other for relative inward swinging movement towards each other to place their outer faces in opposed side-by-side relationship in collapsed condition, the upper marginal edges of said front and back wall members and said roof member defining front and rear openings respectively in said body structure, said openings having a height at least as great as the width of the individual roof panels, a cutout portion, and a seat member defining an opening facing in the normal direction of travel for receiving the legs of a child seated thereon to propel said vehicle, said leg openings comprising opposed cutout portions and said seat member adjacent the front marginal edge thereof, and a dash panel comprising a pair of interconnected sections hingedly mounted on said seat member adjacent said front marginal edge for swinging movement about a transverse axis of said vehicle, said panel extending diagonally upwardly between said seat member and said front wall and bracingly engaged therewith, each of said sections being adapted for disposition in one of each of said cutout portions in collapsed folded condition.

4. The structure set forth in claim 3 including a pair of interconnected panel members providing a dash unit diagonally disposed between said seat member and said front wall member, said panel members being hingedly mounted on said seat member adjacent the leading marginal edge of said cutout portions for swinging movement of said panels towards said seat member about a transverse axis of said vehicle, said panels being disposed within said cutout portions in collapsed folded condition, said panels having mounted thereon a generally upwardly extending steering wheel unit.

5. A mobile vehicular toy for children comprising a body structure including a pair of opposing side wall members interconnected by opposing front and back wall members and a roof member, said front, back and roof members being hingedly connected to said side walls and foldable intermediate said side walls for inward folding movements permitting lateral contractive movement of said side walls into substantially side-by-side relationship with the folded front, back and roof members disposed therebetween, and a seat member hingedly connected to one of said side walls adjacent the lower edge thereof and extending between said side walls and adapted for folding against said one side wall in collapsed condition, said seat member defining openings for receiving the legs of a child seated thereon to propel said vehicle, and where in an opening is provided said front wall and the roof defining a window facing in the normal direction of travel.

6. A mobile vehicular toy for children comprising a body structure including a pair of opposing side wall members interconnected by opposing front and back wall members and a roof member, said front, back and roof members being hingedly connected to said side walls and foldable intermediate said side walls for inward folding movements permitting lateral contractive movement of said side walls into substantially side-by-side relationship with the folded front, back and roof members disposed therebetween, and a seat member hingedly connected to one of said side walls adjacent the lower edge thereof and extending between said side walls and adapted for folding against said one side wall in collapsed condition, said seat member defining openings for receiving the legs of a child seated thereon to propel said vehicle, and where in the vehicle has mounted thereon and forwardly thereof a pair of laterally spaced apart caster wheels.

7. A mobile vehicular toy for children comprising a body structure including a pair of opposing side wall members interconnected by opposing front and back wall members and a roof member, said front, back and roof members being hingedly connected to said side walls and foldable intermediate said side walls for inward folding movements permitting lateral contractive movement of said side walls into substantially side-by-side relationship with the folded front, back and roof members disposed therebetween, and a seat member hingedly connected to one of said side walls adjacent the lower edge thereof and extending between said side walls and adapted for folding against said one side wall in collapsed condition, said seat member defining openings for receiving the legs of a child seated thereon to propel said vehicle, said leg openings comprising opposed cutout portions and said seat member adjacent the front marginal edge thereof, and a dash panel comprising a pair of interconnected sections hingedly mounted on said seat member adjacent said front marginal edge for swinging movement about a transverse axis of said vehicle, said panel extending diagonally upwardly between said seat member and said front wall and bracingly engaged therewith, each of said sections being adapted for disposition in one of each of said cutout portions in collapsed folded condition.

8. A mobile vehicular toy for children comprising a body structure including a pair of opposing side wall members interconnected by opposing front and back wall members and a roof member, said front, back and roof members being hingedly connected to said side walls and foldable intermediate said side walls for inward folding movements permitting lateral contractive movement of said side walls into substantially side-by-side relationship with the folded front, back and roof members disposed therebetween, and a seat member hingedly connected to one of said side walls adjacent the lower edge thereof and extending between said side walls and adapted for folding against said one side wall in collapsed condition, said seat member defining openings for receiving the legs of a child seated thereon to propel said vehicle, and a steering wheel member extending upwardly from said dash panel, said member consisting of two juxtaposed independent half wheels mounted on said panels adjacent the inner marginal edges thereof.

References Cited in the file of this patent

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Patent Number</th>
<th>Inventor(s)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,449,255</td>
<td>Abrahams</td>
<td>Mar. 20, 1923</td>
</tr>
<tr>
<td>1,675,775</td>
<td>Netschert</td>
<td>July 3, 1928</td>
</tr>
<tr>
<td>2,625,882</td>
<td>Bulmash</td>
<td>Jan. 20, 1953</td>
</tr>
<tr>
<td>2,866,495</td>
<td>Dielh</td>
<td>Dec. 30, 1958</td>
</tr>
<tr>
<td>2,926,724</td>
<td>Rittenberg</td>
<td>Mar. 1, 1960</td>
</tr>
</tbody>
</table>

FOREIGN PATENTS

<table>
<thead>
<tr>
<th>Patent Number</th>
<th>Country</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>607,260</td>
<td>Great Britain</td>
<td>Aug. 27, 1923</td>
</tr>
</tbody>
</table>