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Reconfigurable toy vehicle transporter

Abstract

A reconfigurable toy vehicle transporter includes a first transporter that is reconfigurable between a first configuration and a second configuration, the first transporter including a base portion including a first surface having a first track, the base portion including a first compartment in which a toy vehicle can be stored, and a repositionable portion movably coupled to the base portion, the repositionable portion having a second compartment in which a toy vehicle can be stored, the repositionable portion including a second surface having a second track, the repositionable portion being placeable in a first position located above the first surface of the base portion and in a second position in an end-to-end arrangement with the base portion in which the first track and the second track are aligned and continuous. A second transporter is removably coupleable to the first transporter.

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Background/Summary

TECHNICAL FIELD

(1) The present application relates generally to a reconfigurable toy vehicle transporter and, in particular, to a toy vehicle transporter that has multiple transporter portions that can be repositioned relative to each other, and also coupled and decoupled from each other to provide different modes of play.

BACKGROUND

(2) Toys provide entertainment for different users, such as children. For example, a toy may include various features with which a child may play. An example toy that may entertain a child is a toy vehicle. Some conventional toys are transporters that can be used by a child to collect and carry toy vehicles. In some conventional toy vehicle transporters, the variability of play is limited.

Conventional toy vehicle transporters have a single mode of play.

(3) Thus, there is a need for a toy vehicle transporter that is easily reconfigurable and that provides multiple modes of operation facilitating different play.

SUMMARY

(4) A reconfigurable toy vehicle transporter according to one embodiment of the present disclosure includes a first transporter that is reconfigurable between a first configuration and a second configuration, the first transporter including a base portion including a first surface having a first

track, the base portion including a first compartment in which a toy vehicle can be stored; and a repositionable portion movably coupled to the base portion, the repositionable portion having a second compartment in which a toy vehicle can be stored, the repositionable portion including a second surface having a second track, the repositionable portion being placeable in a first position located above the first surface of the base portion and in a second position in an end-to-end arrangement with the base portion in which the first track and the second track are aligned and continuous; and a second transporter that is removably coupleable to the first transporter, wherein the second transporter has a third compartment in which a toy vehicle can be stored.

(5) In one embodiment, the first transporter includes a first arm and a second arm, each of the first arm and the second arm is pivotally coupled to the base portion and also pivotally coupled to the repositionable portion, and the repositionable portion is moved relative to the base portion via movement of the first arm and the second arm.

(6) In another embodiment, the first arm is coupled to the base portion at a first location and coupled to the repositionable portion at a second location, the second arm is coupled to the base portion at a third location and coupled to the repositionable portion at a fourth location, the first location being forward of the third location, and the second location being forward of the fourth location.

(7) In yet another embodiment, the base portion has a first slot and the repositionable portion has a second slot, and the first arm and the second arm are located in the first slot and the second slot when the repositionable portion is in its first position above the base portion.

(8) In an alternative embodiment, the base portion has an outlet opening that is in communication with the first track, the repositionable portion has a launcher proximate to the second track, and when the repositionable portion is in its second position, the launcher can be actuated to launch a toy vehicle along the second track, then along the first track, and then through the outlet opening.

(9) In one embodiment, the second transporter includes a body having an inlet through which toy vehicles can be collected from a support surface.

(10) In another embodiment, the second transporter includes a body having a first side and a second side opposite the first side, the body includes a first wing pivotally mounted to the first side, a second wing pivotally mounted to the second side, and an input member that can be actuated to cause the first wing and the second wing to pivot relative to the body of the second transporter.

(11) In addition, the body includes an internal receptacle, the first wing includes a first track portion that is oriented toward the internal receptacle, and a toy vehicle can be placed on the first track portion of the first wing and can travel from the first wing to the internal receptacle.

(12) In one embodiment, the repositionable portion includes a holding member pivotally connected to the repositionable portion, and the holding member engages the second transporter when the second transporter is placed on the first transporter.

(13) In another embodiment, the first transporter has a locking member, and the second transporter has a release mechanism that can be actuated to decouple the second transporter from the first transporter.

(14) A reconfigurable toy vehicle transporter according to another embodiment of the present disclosure includes a first transporter that is reconfigurable between a first configuration and a second configuration, the first transporter including a base including a first compartment in which a toy vehicle can be stored; and a repositionable portion movably coupled to the base, the repositionable portion having a second compartment in which a toy vehicle can be stored, the repositionable portion being placeable in a first position above the base and in a second position in an end-to-end arrangement with the base; and a second transporter that is removably coupleable to the first transporter, wherein the second transporter has a third compartment in which a toy vehicle can be stored and the second transporter has a toy vehicle intake mechanism that can collect toy vehicles from a support surface.

(15) In an alternative embodiment, the first transporter includes an arm that is pivotally coupled to

the base and pivotally coupled to the repositionable portion, and the repositionable portion is moved relative to the base via the arm.

(16) In another embodiment, the base has a first track, the repositionable portion has a second track, and the second track is aligned with the first track when the repositionable portion is in its second position.

(17) In yet another embodiment, the base has an outlet opening that is in communication with the first track, the repositionable portion has a launcher proximate to the second track, and when the repositionable portion is in its second position, the launcher can be actuated to launch a toy vehicle along the second track, then along the first track, and then through the outlet opening.

(18) In an alternative embodiment, the second transporter includes a body having a wing pivotally mounted thereto, an actuator that can be engaged by a user to move the wing relative to the body of the second transporter, and an internal receptacle that receives a toy vehicle that travels along the wing into the internal receptacle.

(19) A reconfigurable toy vehicle transporter according to another embodiment of the present disclosure includes a first transporter including a base having an upper surface with a track formed therein, the base including a first compartment in which a toy vehicle can be stored; and a repositionable portion movably coupled to the base, the repositionable portion having a second compartment in which a toy vehicle can be stored, the repositionable portion having its own upper surface with a track formed therein, the repositionable portion being placeable in a first position above the base and in a second position end-to-end with the base in which the tracks are aligned and continuous, the repositionable portion including a launcher that can be actuated to propel a toy vehicle along the track on the repositionable portion and then along the track on the base; and a second transporter that is removably coupleable to the first transporter, wherein the second transporter has a third compartment in which a toy vehicle can be stored.

(20) In another embodiment, the second transporter includes a body having an inlet through which toy vehicles can be collected from a support surface, and the body has a first internal receptacle in which collected toy vehicles are disposed.

(21) In an alternative embodiment, the body has a wing pivotally mounted to the body, and an actuator that can be engaged to cause the wing to pivot relative to the body, the wing including a track portion that is directed toward a second internal receptacle so that a toy vehicle placed on the track portion travels from the wing to the second internal receptacle.

(22) In yet another embodiment, the repositionable portion includes a holding member pivotally connected to the repositionable portion, and the holding member engages the second transporter when the second transporter is placed on the first transporter.

(23) In one embodiment, the first transporter has a locking member, the second transporter includes a release mechanism that can be actuated to decouple the second transporter from the first transporter.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

(1) The toy vehicle transporter presented herein may be better understood with reference to the following drawings and description. Unless dimensions of elements of the drawings are specifically called-out and described herein, it should be understood that the elements in the figures are not necessarily to scale and that emphasis has been placed upon illustrating the principles of the toy vehicle. In the drawings, like-referenced numerals designate corresponding parts throughout the different views.

(2) FIG. 1 illustrates a schematic block diagram of an embodiment of a toy vehicle transporter according to the present disclosure.

- (3) FIG. 2 illustrates a perspective view of an embodiment of a toy vehicle transporter according to the present disclosure.
- (4) FIG. 3 illustrates a side view of the toy vehicle transporter illustrated in FIG. 2.
- (5) FIG. 4 illustrates a rear view of the toy vehicle transporter illustrated in FIG. 2.
- (6) FIG. 5 illustrates a perspective view of some components of the toy vehicle transporter illustrated in FIG. 2 in a different configuration.
- (7) FIG. 6 illustrates a perspective view of a portion of a base of the toy vehicle transporter illustrated in FIG. 2 with several components removed.
- (8) FIG. 7 illustrates a perspective view of a rear portion of the toy vehicle transporter illustrated in FIG. 2 with its portions in their opened positions.
- (9) FIG. 8 illustrates a perspective view of a base transporter of the toy vehicle transporter illustrated in FIG. 2 in its unfolded configuration.
- (10) FIG. 9 illustrates a perspective view of a rear portion of the base transporter illustrated in FIG. 8.
- (11) FIG. 10 illustrates a perspective view of the rear portion illustrated in FIG. 8 with some components removed.
- (12) FIG. 11 illustrates a perspective view of a rear portion of the base transporter illustrated in FIG. 8.
- (13) FIG. 12 illustrates a perspective view of a front portion of the toy vehicle transporter illustrated in FIG. 2.
- (14) FIG. 13 illustrates a side view of the front portion illustrated in FIG. 12 engaging toy vehicles.
- (15) FIG. 14 illustrates a top view of some components of a tongue moving assembly of the toy vehicle transporter illustrated in FIG. 2.
- (16) FIG. 15 illustrates another top view of some components of the tongue moving assembly of the toy vehicle transporter illustrated in FIG. 2.
- (17) FIG. 16 illustrates a bottom view of some components of the tongue moving assembly of the toy vehicle transporter illustrated in FIG. 2.
- (18) FIG. 17 illustrates a bottom perspective view of some components of the tongue moving assembly of the toy vehicle transporter illustrated in FIG. 2.
- (19) FIG. 18 illustrates another bottom perspective view of some other components of the tongue moving assembly of the toy vehicle transporter illustrated in FIG. 2.
- (20) FIG. 19 illustrates a side view of some components of the tongue moving assembly of the toy vehicle transporter illustrated in FIG. 2.
- (21) FIG. 20 illustrates a perspective view of a rear portion of the toy vehicle transporter illustrated in FIG. 2 with a removable transporter decoupled from the base transporter.
- (22) FIG. 21 illustrates a perspective view of an embodiment of a removable transporter according to the present disclosure.
- (23) FIG. 22 illustrates a perspective view of a front portion of the removable transporter illustrated in FIG. 21.
- (24) FIG. 23 illustrates a perspective view of a rear portion of the removable transporter illustrated in FIG. 21.
- (25) FIG. 24 illustrates a perspective view of the removable transporter illustrated in FIG. 21 with some components removed.
- (26) FIG. 25 illustrates a top perspective view of the wing moving mechanism of the removable transporter illustrated in FIG. 21 with some components removed.
- (27) FIG. 26 illustrates a bottom perspective view of the components of the wing moving mechanism illustrated in FIG. 25.
- (28) FIG. 26A illustrates another bottom perspective view of the components of the wing moving mechanism illustrated in FIG. 25.
- (29) FIG. 26B illustrates another bottom perspective view of the components of the wing moving

mechanism illustrated in FIG. 25.

(30) FIG. 27 illustrates a cross-sectional side view of the toy vehicle transporter illustrated in FIG. 2.

(31) FIG. 28 illustrates perspective views of an embodiment of different supports of a toy vehicle transporter according to the present invention.

(32) FIG. 29 illustrates top views of the supports illustrated in FIG. 28.

(33) FIG. 30 illustrates a top view of the repositionable portion of the toy vehicle transporter.

(34) FIG. 31 illustrates a bottom view of the repositionable portion illustrated in FIG. 30.

(35) FIG. 32 illustrates a perspective view of the bottom of the repositionable portion illustrated in FIG. 30 with the supports coupled thereto.

(36) FIG. 33 illustrates a perspective view of the repositionable portion in an intermediate position relative to the base portion of the toy vehicle transporter.

(37) FIG. 34 illustrates a perspective view of the repositionable portion in its deployed position without the removable transporter coupled thereto.

(38) FIG. 35 illustrates a perspective view of the repositionable portion in its deployed position with the removable transporter coupled thereto.

(39) FIG. 36 illustrates a perspective view of the repositionable portion in an intermediate position with the removable transporter coupled thereto.

DETAILED DESCRIPTION

(40) In a toy vehicle transporter according to the aspects disclosed herein has a base transporter and a repositionable transporter that can be moved relative to the base transporter and placed into different positions. In one position, the repositionable transporter and the base transporter can be in a stacked configuration. In another position, the repositionable portion and the base portion can be in an end-to-end arrangement. A removable transporter can be coupled to and decoupled from the toy vehicle transporter. Each transporter and portion includes at least one cavity or receptacle in which a toy vehicle can be placed.

(41) Initially referring to FIG. 1, a schematic block diagram of an embodiment of a toy vehicle transporter according to the present disclosure is illustrated. Several components of the toy vehicle transporter are shown in FIG. 1 in generic form. It is to be understood that the various details and features of the components of the toy vehicle transporter may vary in different embodiments.

(42) Toy vehicle transporter **10** can be referred to as a reconfigurable toy vehicle transporter because one or more of the components of the toy vehicle transporter **10** can be repositioned to change the overall configuration of the toy vehicle transporter **10**. As a result, a child can have different play patterns and experiences with the different configurations.

(43) In this embodiment, toy vehicle transporter **10** includes a transporter **20** and a removable transporter **40**. The transporter **20** includes at least one cavity or recess in which a toy vehicle can be placed. Similarly, the removable transporter **40** includes at least one cavity or recess in which a toy vehicle can be placed.

(44) The transporter **20** includes a base portion **22** and a repositionable portion **26** that is movably coupled to the base portion **22**. The coupling between the base portion **22** and the repositionable portion **26** enables the repositionable portion **26** to be placed in multiple positions relative to the base portion **22**. In particular, the repositionable portion **26** can be placed into a position **30** in which the repositionable portion **26** is located above or on top of the base portion **22**. When portion **26** is in position **30**, the transporter **20** has a first configuration **34**. In configuration **34**, the base portion **22** and the repositionable portion **26** have a stacked arrangement.

(45) The repositionable portion **26** can be moved along the direction of arrow "A" to a different position. In particular, the repositionable portion **26** can be moved to position **32** (shown in dashed lines) in which an end of the repositionable portion **26** is placed adjacent to an end of the base portion **22**. When the portions **22** and **26** are in these positions, the toy vehicle transporter **20** has a second configuration **36** in which portions **22** and **26** are in an end-to-end arrangement. A user can

move the repositionable portion **26** from position **32** to position **30** in a direction opposite to that of arrow “A” in FIG. **1**. In one embodiment, movement of the repositionable portion **26** relative to base portion **22** is performed manually.

(46) In addition, the base portion **22** has one or more tracks **24** formed therein, which in one embodiment, may extend along a length of the base portion **22**. Similarly, repositionable portion **26** has one or more tracks **28** formed therein, which in one embodiment, may extend along a length of the repositionable portion **26**. Each of the tracks **24** and **28** is sized and configured to receive a toy vehicle and allow the toy vehicle to travel along the tracks **24** and **28**. When repositionable portion **26** is in its position **32**, track **24** is aligned with track **28**, thereby permitting a toy vehicle to travel continuously from one of the tracks **24** and **28** to the other of tracks **24** and **28**.

(47) The removable transporter **40** of reconfigurable toy vehicle transporter **10** can be coupled to and decoupled from transporter **20**. The removable transporter **40** includes at least one cavity or receptacle in which a toy vehicle can be placed. The removable transporter **40** can be placed in a position **42** in which the removable transporter **40** is placed on transporter **20** and coupled thereto. When the removable transporter **40** is decoupled from the transporter **20**, the removable transporter **40** can be moved away from the transporter **20** along the direction of arrow “B” to another position **44**.

(48) The transporter **20** can be placed on a support surface **80** on which one or more toy vehicles **90** can be located. In one embodiment, one of the transporter **20** and the removable transporter **40** has a mechanism that can either engage a toy vehicle **90** on support surface **80** or gather one or more toy vehicles **90** from the support surface **80**.

(49) Turning to FIG. **2**, an embodiment of a toy vehicle transporter that is reconfigurable according to the present disclosure is illustrated. Toy vehicle transporter **100** includes a transporter **110** and a removable transporter **400** that can be coupled to and decoupled from the transporter **110**.

Removable transporter **400** is illustrated in FIG. **2** as being mounted on the transporter **110**.

(50) Transporter **110** is shown in a folded or collapsed configuration **112**. Transporter **110** includes a base portion **120** that has several different features as described herein. Base portion **120** extends from a first or front end **122** to a second or rear end **124**. In this embodiment, transporter **110** includes a tongue **160** that is driven side-to-side by a gear arrangement that is driven by rotation of an axle coupled to wheels of the transporter **110**. The tongue **160** extends forwardly from the front end **122**. Also located at the front end **122** is a pivotally mounted head member **170**, which in this embodiment resembles a head of a toy animal.

(51) The transporter **110** also includes a repositionable portion **300** that is movably coupled to the base portion **120**. In FIG. **2**, the repositionable portion **300** is shown in a first position **306** in which the repositionable portion **300** is located above the base portion **120**.

(52) Turning to the removable transporter **400**, the removable transporter **400** is shown in FIG. **2** in its coupled position **494** relative to repositionable portion **300**. The removable transporter **400** has a body **402** that has a handle **420** defining an opening **422** through which a child's hand may be inserted. Located proximate to handle **420** is an actuator **424** that can be pressed by a child to release wing portions coupled to body **402** from their lowered or retracted positions proximate to the body **402** so the wing portions can move to their deployed positions in which they extend outwardly from the body **402**. Each of the wing portions is biased by a biasing mechanism to its deployed or raised position, and can be moved manually by a child from its deployed or raised position back to its retracted position. In FIG. **2**, only wing **440** is illustrated, which is shown in its lowered position **442** in which wing **440** is retained by a latch against the biasing force of a biasing mechanism, such as a spring.

(53) In this embodiment, removable transporter **400** includes a head **430** that is pivotally mounted to the body **402**, and a toy vehicle collector **480** that engages toy vehicles on a support surface and moves the toy vehicles into a receptacle in the body **402**. As described in more detail below, the toy vehicle collector **480** includes a rotating hub that is driven by rotation of an axle coupled to the

body **402**, and the hub includes several paddles extending therefrom that engage toy vehicles.

(54) Referring to FIG. 3, a side view of the toy vehicle transporter **100** shown in FIG. 2 is illustrated. The toy vehicle transporter **100** is shown in its folded or collapsed configuration **112** in FIG. 3 as well. The head member **170** is shown in its lowered position **178** relative to the base portion **120**. The base portion **120** includes several cavities or receptacles **184** in which toy vehicles **90** can be placed manually by a child. In the view illustrated in FIG. 3, both of the wings **440** and **460** are illustrated. As a child moves the toy vehicle transporter **100** along a support surface, the removable transporter **400** moves therewith. In particular, a child can grasp the handle **420** and move the handle **420** relative to a support surface to move the toy vehicle transporter **100** as well.

(55) Turning to FIG. 4, a rear view of toy vehicle transporter **100** is illustrated. An opening **408** into an internal cavity or receptacle in the body **402** of the removable transporter **400** is sized so that a user can insert a toy vehicle through opening **408** into the cavity or receptacle. The removable transporter **400** has sides **410** and **411** on opposite sides of the handle **420**. Side **410** has a mount or mounting portion **412** to which wing **440** is pivotally coupled. Similarly, side **411** has a mount or mounting portion **413** to which wing **460** is pivotally coupled. In this configuration, the wings **440** and **460** are disposed in their lowered positions **442** and **462**, respectively. Wing **440** is coupled to a latch member **450** that is pivotally coupled to the body **402**. Similarly, wing **460** is coupled to a latch member **470** that is pivotally coupled to the body **402**. As described in detail below, each of the latch members **450** and **470** is movable between a lowered position and a raised or extended position relative to the body **402**. In FIG. 4, each of the latch members **450** and **470** is in its lowered position.

(56) When a child engages and presses downwardly on the actuator **424**, the latch members **450** and **470** are moved downwardly relative to the body **402** so that latches on the latch members **450** and **470** can disengage from catches on the body **402**, thereby allowing the latch members **450** and **470** to move upwardly under the biasing force of springs from their lowered positions to their raised positions.

(57) Turning to FIG. 5, some of the reconfiguration of the toy vehicle transporter **100** is illustrated. The base portion **120** is placeable on a support surface, and includes several toy vehicles **90** disposed in cavities therein. The toy vehicle transporter **100** includes a repositionable portion **300** that is movable relative to the base portion **120**. In FIG. 5, the location of the repositionable portion **300** is such that the transporter **110** is in an intermediate configuration **114**. The transporter **110** includes a pair of arms **210** and **230**, which can be referred to as couplers, each of which is connected to both the base portion **120** and the repositionable portion **300**. The arms **210** and **230** are coupled to each of the base portion **120** and the repositionable portion **300** in a manner to avoid fingers of a child from being pinched by the arms **210** and **230**. Arm **210** is connected to base portion **120** at location **216**. Arm **230** is connected to base portion **120** at location **236**, which in this embodiment, is located closer to the rear end of base portion **120** than location **216**. Similarly, arm **210** is connected to repositionable portion **300** at location **218**. Arm is connected to repositionable portion **300** at location **238**, which in this embodiment is located closer to the rear end of repositionable portion **300** than location **218**. When repositionable portion **300** is moved relative to base portion **120**, each of the arms **210** and **230** pivot relative to the portions **120** and **300**. Each of the base portion **120** and the repositionable portion **300** has a slot into which the arms **210** and **230** is accommodated so that the arms **210** and **230** are not preventing the base portion **120** and the repositionable portion **300** from being moved relative to each other in a smooth and continuous manner. To move the repositionable portion **300**, a user can grasp the handle of the removable transporter **400** while it is coupled to the repositionable portion **300** and move the removable transporter **400** along the direction of arrow "C". That movement causes the arms **210** and **230** to pivot as well.

(58) Repositionable portion **300** includes a body **310** with a lower member **342** that has a lower surface **346** from which several engaging members **348** extend downwardly. When the

repositionable portion **300** is positioned on top of the base portion **120**, the engaging members **348** contact the upper surface of the base portion **120** and create a space between the lower member **342** and the base portion **120**, which reduces the likelihood of a user's fingers or hand being pinched between the repositionable portion **300** and the base portion **120**.

(59) Turning to FIG. **6**, the base portion **120** has a front end **122** and a rear end **124** opposite to the front end **122**. The base portion **120** also includes a mount **200** that has two spaced-apart flanges that contain holes in which a pin **202** extends, and a mount **204** that has two spaced-apart flanges that contain holes through which a pin **206** extends. Arm **210** has opposite ends **212** and **214**. End **212** is pivotally coupled to mount **200** via pin **202**, which forms the location **216** at which arm **210** is coupled to base portion **120**. Arm **210** can be pivoted about an axis defined by pin **202**. Arm **210** is shown in FIG. **6** in its folded or retracted position **220**. Arm includes a pair of posts **217** that extend in opposite directions at end **214**. The posts **217** are pivotally coupled to repositionable portion **300** via recesses in repositionable portion **300** and connectors (not shown).

(60) Similarly, arm **230** has opposite ends **232** and **234**. End **232** is pivotally coupled to mount **204** via pin **206**, which forms the location **236** at which arm **230** is coupled to base portion **120**. Arm **230** can be pivoted about an axis defined by pin **206**. Arm **230** is shown in its folded or retracted position **240**. Arm includes a pair of posts **237** that extend in opposite directions at end **234**. Like posts **217**, the posts **237** are pivotally coupled to repositionable portion **300** via recesses in repositionable portion **300** and connectors (not shown).

(61) Referring to FIG. **7**, the removable transporter **400** is coupled to a coupling platform **360** of the transporter **110** which is in its deployed or unfolded configuration. In this view, the features of repositionable portion **300** are easily viewable. In particular, the repositionable portion **300** has a body **310** that has an upper side or upper surface **312** that extends between a front end **302** and a rear end **304** of the body **310**. The upper surface **312** includes a pair of tracks **318** and **324** formed therein. Track **318** is defined between rails **314** and **316**. Track **324** is defined between rails **320** and **322**. Tracks **318** and **324** are parallel to each other and extend between the front end **302** and the rear end **304**. The body **310** includes an upper member **340** and a lower member **342** that define therebetween several cavities or receptacles **344** in which toy vehicles **90** are located. The engaging members **348** extending downwardly from lower member **342** are shown in FIG. **7** as well.

(62) Turning to FIGS. **8** and **9**, a perspective view of the transporter **110** is illustrated. The transporter **110** is shown in its flat or deployed configuration **116**, and is placed on a support surface such that wheels **190** engage the support surface. The base portion **120** has a body **130** with an upper side or upper surface **132** that extends from a front end to a rear end of the body **130**. The upper side **132** has a pair of tracks formed therein. Track **138** is defined between rail **134** and rail **136**. Track **144** is defined between rail **140** and **142**. Located between tracks **138** and **144** is a slot **146** into which arm **210** can be disposed. Arm **210** is shown in its fully opened position **222**, which allows repositionable portion **300** to be placed in an end-to-end arrangement with base portion **120**. The body **130** includes an upper member **180** and a lower member **182** that define therebetween several cavities or receptacles **184** into which toy vehicles **90** can be located. The head member **170** is pivotally coupled to the base portion **120** via pins or axles **172**. The head member **170** is shown in its raised position **176** in FIG. **8**.

(63) Repositionable portion **300** is disposed in a position **308** in which it is in an end-to-end arrangement with base portion **120**. As shown, the body **310** of the repositionable portion **300** includes the tracks **318** and **324** formed therein.

(64) Coupling platform **360** has a body **362** with several features that receive portions of the removable transporter **400**, which has been decoupled from coupling platform **360** in FIG. **8**. The body **362** has an upper surface **364** with receptacles **366** and **368** formed therein in which toy vehicles can be placed. The upper surface **364** also includes receptacles **370** for the different wheels of removable transporter **400**. The coupling platform **360** also has features that facilitate the coupling of the removable transporter **400** thereto. In particular, body **362** has a pair of spaced-

apart slots **372** that are sized so that latches **376** and **378** can extend therethrough and move back and forth therein. A hook member **382** located at the rear end of the base portion is shown in FIG. **9**.

(65) Referring to FIG. **10**, the body **362** of the coupling platform **360** has been removed to simplify the description of the various components. The repositionable portion **300** includes several supports that are slidably coupled to and move relative to the repositionable portion **300**. In particular, the top ends of supports **500**, **520**, and **540** are shown in FIG. **10**. The structures of supports **500**, **520**, and **540** are described below relative to FIGS. **28** and **29**, the movement and function of the supports **500**, **520**, and **540** are described below relative to FIGS. **30-36**.

(66) A lock plate **374** is viewable with body **362** removed. In this embodiment, lock plate **374** has latches **376** and **378** integrally formed thereon. Lock plate **374** has a slot formed therein in which a biasing member **380**, such as a spring, is disposed. The biasing member **380** biases the lock plate **374** in the direction of arrow "D", which causes the latches **376** and **378** to remain in openings in the lower surface of removable transporter **400** to couple the removable transporter **400** to the coupling platform **360**.

(67) The coupling platform **360** has an engagement member **388** that is movably mounted to the coupling platform **360**. The engagement member **388** has a pair of posts **390** that extend upwardly and which are engaged by a lower surface of the removable transporter **400** when the removable transporter **400** is placed on the coupling platform **360**. The hook member **382** is pivotally coupled to coupling platform **360** and movable about pins or axles **392**. The hook member **382** has a lower end **384** that is engaged by engagement member **388** and an opposite upper end **386**. When the removable transporter **400** is placed onto the coupling platform **360**, it presses downward on the engagement member **388** along the direction of arrow "E", which in turn presses downward on lower end **384**. As a result, that movement causes the hook member **382** to pivot about axles **392** along the direction of arrow "F". The hook member **382** has two body portions **394**, each of which terminates in a hook **396**. When the hook member **382** rotates, the hooks **396** engage the removable transporter **400**, and the top of the hook member **382** can be used as a handle.

(68) Turning to FIG. **11**, the launching of toy vehicles is described. In this view, a rear portion of the repositionable portion **300** is shown. The repositionable portion **300** includes a first launcher **330** associated with track **318** and a second launcher **334** associated with track **324** (not shown in FIG. **11**). Launcher **330** has an engagement member **332** that is biased into engagement with a toy vehicle **90** located on track **318**. Similarly, launcher **334** has an engagement member **336** that is biased into engagement with a toy vehicle on track **324**. The engagement members **332** and **336**, which are retained by catches in their loaded positions against the bias of one or more springs, are simultaneously released when a user presses downward on button or actuator **338** to releases the catches. As a result, when the toy vehicles **90** are propelled along tracks **318** and **324**, the toy vehicles **90** travel from the rear end of the transporter **110** to the front end of the transporter **110**.

(69) Referring to FIG. **12**, the front end portion **150** of the transporter **110** is illustrated. The front end portion **150** includes a lower ramp portion **152** located beneath the head member **170**. The tongue **160** is located in a slot **158** in the lower ramp portion **152**, which is located between tracks **154** and **156**. Track **154** is in communication with track **138** and track **318**. As a result, a toy vehicle **90** can be propelled by launcher **330** along track **318**, then track **138**, and then track **154**. Similarly, track **156** is in communication with track **144** and **324**. The base has an outlet opening **153** that is in communication with the track **154**. As a result, a toy vehicle **90** can be propelled by launcher **334** along track **324**, then track **144**, and then track **156**.

(70) As described in detail below, the tongue **160** moves side-to-side relative to the front end of the toy vehicle transporter **100**. In FIG. **13**, the head member **170** has pivoted downwardly around axle **172** to its lowered position **178**. When the transporter **110** is moved along a support surface, its wheels rotate, which drives a gear as an input to a drive assembly that causes the tongue **160** to move side-to-side.

(71) Turning to FIGS. **14-19**, an embodiment of a drive assembly according to a present invention is illustrated. Initially referring to FIG. **14**, a top view of some components of the drive assembly **245** are shown. The tongue **160** has an upper surface **162** and an end **164** that is insertable into a front end **252** of a driving member **250**. The driving member **250** is mounted for reciprocating movement. The driving member **250** also includes an upwardly extending rod **256** that defines a pivot axis **258** about which the driving member **250** reciprocates back and forth along the directions of arrows "G".

(72) Coupled to the base portion **120** is an axle **194** that rotates about its longitudinal axis. Wheels **190** and **192** are mounted to opposite ends of the axle **194**. Also coupled to the axle **194** is a gear **196** that has several teeth **198** around its perimeter, and which rotates with the axle **194** about that axle's longitudinal axis.

(73) The drive assembly includes another axle **280** that is parallel to axle **194**. A fixed sleeve **282** is mounted to the axle **280**. A biasing member **284**, such as a coil spring, is engaged with the fixed sleeve **282**. The biasing member **284** also engages a gear **290** that is mounted on the axle **280**. The teeth of gear **290** engage the teeth **198** of gear **196**. Rotation of gear **196** results in teeth **198** driving the teeth of gear **290**, which rotates axle **280** about its longitudinal axis.

(74) Turning to FIG. **15**, different components of the drive assembly **245** are illustrated. FIG. **15** is a top view showing the components relative to wheels **190** and **192** and axle **194**. The drive assembly **245** includes another gear **294** mounted on axle **280**. The biasing member **284** biases gear **290** into engagement with gear **294** so that crown teeth formed on gear **290** are biased into engagement with crown teeth formed on gear **294**. As a result, the rotation of gear **290** directly causes gear **294** to rotate as well. Located proximate to gear **294** is a crown gear **260** that rotates about a pivot axis **263**. The crown gear **260** has an upper surface **262** from which a post **264** extends upwardly. The post **264** is eccentrically mounted relative to the pivot axis **263**.

(75) Turning to FIG. **16**, a bottom view of some of the components of the drive assembly **245** is illustrated. In this view, the relative positions of the gears **196**, **290**, and **294**, axle **280**, and axle **194** between wheels **190** and **192** are shown. Gear **294** includes a series of teeth **296** around its perimeter as well. The driving member **250** includes a body with a downwardly extending wall **274** and a slot **276** that receives the post **264**. When the crown gear **260** rotates, the post **264** moves relative to pivot axis **263** as well. Post **264** moves back and forth in slot **276** and rotates about axis **263**, which drives the body of the driving member **250** to reciprocate about pivot axis **258**.

(76) Turning to FIGS. **17** and **18**, perspective views of different components of the drive assembly **245** are shown. Front end **252** of driving member **250** has an opening **254** formed therein, into which end **164** of the tongue **160** is inserted. As shown in FIG. **17**, the drive assembly **245** includes a gear housing **270** that has a downwardly extending lower portion **271** that has an opening **272** formed therein. The gear housing **270** is removed in FIG. **18**, which shows the crown gear **260**. The crown gear **260** has a lower end **266** with downwardly oriented teeth **268**. Due to the opening **272**, teeth **268** of crown gear **260** engage the teeth **296** of gear **294**. Thus, when the ground engaging members or wheels **190** and **192** rotate, axle **194** rotates. Due to the engagement of the teeth between the different gears of drive assembly **245**, when axle **194** rotates, gear **196** rotates, gear **290** rotates, gear **294** rotates, and crown gear **260** rotates.

(77) A side view of some components of drive assembly **245** is shown in FIG. **19**. The front end **252** and the upwardly extending rod **256** of the driving member **250** are illustrated. The post **264** of the crown gear **260** that engages the driving member **250** as described above extends upwardly while the lower end **266** have teeth **268** extending in the opposite direction. The axles **194** and **280** and wheel **192** are shown in a side view. The profiles of gear **196** with teeth **198** and gear **294** with teeth **296** are also shown.

(78) Turning to FIG. **20**, a perspective view of a rear portion of the transporter **110** is illustrated. The repositionable portion **300** is located in an end-to-end relationship with base portion **120**. The coupling platform **360** engaged with repositionable portion **300** has a toy vehicle **90** positioned

thereon. The removable transporter **400** has been decoupled from the coupling platform **360** and is being held by a user in a decoupled position **496**. The user has pressed downward on the actuator **424**, which causes the wings **440** and **460** to move upwardly to their raised positions **444** and **464**, respectively.

(79) The removable transporter **400** can be used on a support surface on its own without toy vehicle transporter **100**. A perspective view of the removable transporter **400** by itself is illustrated in FIG. **21**. The removable transporter **400** has a body **402** with an upper portion **404** and a lower portion **406**. Coupled to a front end of the lower portion **406** are a left side jaw member **414** and a right side jaw member **416**. The toy vehicle collector **480** is located between the jaw members **414** and **416**, which guide toy vehicles toward the toy vehicle collector **480** when the removable transporter **400** is pushed along a support surface. The toy vehicle collector **480** includes a hub **482** that is rotatably mounted on axle **484**. Extending radially outward from the hub **482** are several paddles **486**. As the hub **482** rotates, the paddles move with the hub **482** around the longitudinal axis of the axle **484**. A drive gear **488** with teeth **489** is rotatable mounted to the body **402**. The drive gear **488** is driven by a gear that rotates as the front wheels **490** rotate as the removable transporter **400** moves along a support surface. There is a pair of rear wheels **492** mounted to the body **402** as well. In FIG. **21**, the wings **440** and **460** are in their raised positions. Wing **440** is coupled to latch member **450** and moved therewith. The latch member **450** has an engagement member **454** and a latch **456**. As described in greater detail below, each of the wings has a track formed therein. As shown, track **468** in wing **460** is configured to receive a toy vehicle.

(80) Turning to FIG. **22**, a user has grasped handle **420** and is moving the removable transporter **400** along a support surface. As the removable transporter **400** is pushed along the support surface, toy vehicles **90** can be collected by the toy vehicle collector **480**. The rotation of the front wheels of the removable transporter **400** causes the hub **482** and its paddles **486** to rotate, with the paddles **486** scooping the toy vehicles **90** into an internal cavity or receptacle of body **402**.

(81) Turning to FIG. **23**, some of the various paths for the toy vehicles on removable transporter **400** are shown. The track **468** on wing **460** has a toy vehicle **90** traveling therealong. Toy vehicle **90** can exit track **468** into track entrance **427** and then into track section **427A** from which the toy vehicle **90** travels downwardly into a cavity or receptacle **428** in body **402**. Similarly, wing **440** has a track **448** formed therein. A toy vehicle can exit track **448** into track entrance **426** and then into track section **427A** and subsequently into receptacle **428**.

(82) Referring to FIGS. **24-26B**, the movement of wings **440** and **460** (while not shown in all of those drawings) is described in greater detail. In those figures, some components of the removable transporter **400** are shown. Initially referring to FIG. **24**, wings **440** and **460** (not shown) are coupled to latch members **450** and **470**, respectively, which are shown in their lowered positions. When a user presses on actuator button **424** along the direction of arrow "H", the latch members move downwardly along the direction of arrow "H" as well and are released from catches, which enables the wings **440** and **460** and their latch members **450** and **470** to pivot upward relative to the body **402**.

(83) Wing **440** is rotatably mounted to a rod **458** that has a longitudinal axis **458A**. A biasing member **459**, such as a spring, is mounted on the rod **458** and biases the wing **440** around the longitudinal axis **458A** in the direction of arrow "I". Similarly, wing **460** is rotatably mounted to a rod **478** that has a longitudinal axis **478A**. A biasing member (not shown in FIG. **24**) is mounted on the rod **478** and biases the wing **460** around the longitudinal axis **478A** in the direction of arrow "I".

(84) Turning to FIGS. **25** and **26**, several additional components of the removable transporter **400** have been removed to simplify the description of the remaining components. The removable transporter **400** has a housing **432** that is proximate to the vertically movable actuator **424**. Plates or tabs **445** with collars **446** are mounted on rod **458** along with biasing member **459**. Similarly, plates or tabs **465** with collars **466** are mounted on rod **478** along with biasing member **479**. Each of the

latch members **450** and **470** has an inwardly directed latch **456** and **476**, respectively, that engages a catch on the body **402** of the removable transporter **400**.

(85) The latch **476** on latch member **470** is shown in FIG. 25 and the latch **456** on latch member **450** is shown in FIG. 26A. The latch members **450** and **470** have upper ends **452** and **472**, respectively. Each of the latch members **450** and **470** has a biasing member, such as a spring, that engages the particular latch member and its respective wing to bias the particular latch member upwardly. Latch member **450** has biasing member **457** (see FIG. 25) and latch member **470** has a biasing member **477** (see FIG. 26B).

(86) Referring to FIGS. 26, 26A, and 26B, Latch member **450** has an upper end **452** with a tab **453** that is used to drive the latch member **450** downward. Similarly, latch member **470** has an upper end **472** with a tab **473** that is engaged to drive the latch member **470** downward. The actuator **424** extends upwardly from a body **424A** that has two downwardly extending engaging portions, see engaging portion **425A** in FIG. 26 and engaging portion **425B** in FIG. 26A. The actuator **424** is slidable relative to housing **432**.

(87) Disposed below housing **432** is a pair of engaging members **700** and **720**, which are located on opposite sides of housing **432**. Referring to FIG. 26, engaging member **720** includes a body with an upper end **722** that is a horizontal plate from which a vertical plate extends downwardly forming a lower end **724**. The body of the engaging member **720** is coupled to rod or axle **730** which defines an axis **735** about which the engaging member **720** can rotate. In one embodiment, the engaging member **720** is biased upwardly by a biasing member, and can be forced downwardly about axis **735** by a downward force applied to upper end **722**. Referring to FIGS. 26, 26A and 26B, engaging member **700** includes a body with an upper end **702** that is a horizontal plate from which a vertical plate extends downwardly forming a lower end **704**. The body of the engaging member **700** is coupled to rod or axle **710** which defines an axis **715** about which the engaging member **700** can rotate. In one embodiment, the engaging member **700** is biased upwardly by a biasing member, and can be forced downwardly about axis **715** by a downward force applied to upper end **702**.

(88) As mentioned above, latch member **450** is biased upwardly by its biasing member **457** and latch member **470** is biased upwardly by its biasing member **477**. In FIG. 26B, a ledge **447** formed on wing **440** to which one end of the biasing member **457** is coupled is shown. In FIGS. 26, 26A, and 26B, the lower end **704** of engaging member **700** contacts the tab **453** of latch member **450**. Similarly, the lower end **724** of engaging member **720** contacts the tab **473** of latch member **470**. Referring to FIG. 26, when a user desires to open the wings **440** and **460** of the removable transporter **400** to their raised positions, the user pushes downwardly on actuator **424** along the direction of arrow “T”. The actuator **424**, body **424A**, and engaging portions **425A** and **425B** move downwardly as well along arrow “T”. Downward movement of engaging portions **425A** and **425B** force the upper ends **702** and **722** of engaging members **700** and **720**, respectively, downward. That movement results in engaging member **700** pivoting along the direction of arrow “V” about axis **715** (see FIGS. 26 and 26A) and engaging member **720** pivoting along the direction of arrow “U” about axis **735** (FIG. 26).

(89) When engaging member **700** pivots about axis **715**, its lower end **704** engages tab **453** of latch member **450** and moves latch member **450** along the direction of arrow “W” against the upward force of biasing member **457**. Movement of latch member **450** along arrow “W” results in the latch **456** disengaging from a catch on the body **402**, thereby allowing wing **440** and latch member **450** to pivot along the direction of arrow “I” about axis **458A** (see FIG. 24) to their raised positions. When a user wants to lower the wing **440**, the user can manually move wing **440** and latch member **450** about axis **458A** in the direction opposite to arrow “I” until the latch **456** re-engages with the catch on the body **402**.

(90) Similarly, when engaging member **720** pivots about axis **735**, its lower end **724** engages tab **473** of latch member **470** and moves latch member **470** along the direction of arrow “W” against the upward force of biasing member **477**. Movement of latch member **470** along arrow “W” results

in the latch **476** disengaging from a catch on the body **402**, thereby allowing wing **460** and latch member **470** to pivot along the direction of arrow “J” about axis **478A** (see FIG. 24) to their raised positions. When a user wants to lower the wing **460**, the user can manually move wing **460** and latch member **470** about axis **478A** in the direction opposite to arrow “J” until the latch **476** re-engages with the catch on the body **402**.

(91) Referring to FIG. 27, a cross-sectional side view of the toy vehicle transporter **100** is illustrated. The transporter **110** with its pivotally mounted head member **170** and tongue **160** is illustrated. The arms **210** and **230** that pivotally couple the repositionable portion **300** to base portion **120** are shown. The details of the toy vehicle collector **480** of the removable transporter **400** are also shown. The hub **482** mounted on the axle **484** with its paddles **486** beneath pivotally mounted head **430**. The gear **483** that drives the hub **482** for rotation (based off the rotation of the wheels of removable transporter **400**) can be seen slightly to the rear of the hub **482**. The various components of the body **402** of the removable transporter **400** are illustrated in FIG. 27. The handle **420** and the actuator **424** are coupled to the body **402**. The body **402** includes a first internal cavity or receptacle **428** that is defined by wall **428A**. Receptacle **428** is accessible via rear opening **408**. A user can either insert toy vehicles into the receptacle **428** through the rear opening **408** and/or remove toy vehicles from the receptacle **428** via rear opening **408**. As described above, toy vehicles can also travel into the receptacle **428** from the tracks in the wings **440** and **460**. The body **402** also includes a second internal cavity or receptacle **429** that is located between wall **428A** and a lower wall **429A**. Receptacle **429** receives toy vehicles that have been moved into the body **402** via the toy vehicle collector **480** along surface **429B**.

(92) The removable transporter **400** is mounted to the coupling platform **360**. A lower surface **407** that engages a lower end **384** of the hook member **382** is shown. The actuator **338** is located to the rear of the lower end **384** of the hook member **382**, which enables a user to engage the actuator **338** while the removable transporter **400** is mounted to the coupling platform **360**.

(93) In the cross-sectional view of FIG. 27, two supports **500** and **540** are shown extending downwardly from coupling platform **360**. Support **500** is in its lowered position **518A** relative to coupling platform **360**. Similarly, support **540** is in its lowered position **558A** relative to coupling platform **360**. The supports **500**, **520**, and **540** are described in detail relative to FIGS. 28-36.

(94) Referring initially to FIGS. 28 and 29, perspective views and top views, respectively, of supports **500**, **520**, and **540** are shown. Support **500** has an upper end **502** and a lower end **504** opposite the upper end **502**. Extending between ends **502** and **504** are sides **506** and **508**. Side **506** has a groove **510** extending therealong. Similarly, side **508** has a groove **512** extending therealong. In addition, side **506** has a notch **513** formed therein. At the bottom of support **500** are flanges **514** and **516** that extend outwardly in opposite directions from sides **506** and **508**, respectively. Support **500** has a tab **503** extending upwardly from the upper end **502**. In this embodiment, the tab **503** has outwardly extending projections **505A** and **505B** on opposite sides of the tab **503**. The projections **505A** and **505B** are used to mount or couple the support **500** to the coupling platform **360**.

(95) Support **520** has an upper end **522** and a lower end **524** opposite the upper end **522**. Extending between ends **522** and **524** are sides **526** and **528**. In this embodiment, only side **526** has a groove **530** extending therealong. Extending upwardly from the upper end **522** of support **520** is a tab **523**. Tab **523** has outwardly extending projections **525A** and **525B** on opposite sides of the tab **523**. The projections **525A** and **525B** are used to mount or couple the support **520** to the coupling platform **360**.

(96) Support **540** has an upper end **542** and a lower end **544** opposite the upper end **542**. Extending between ends **542** and **544** are sides **546** and **548**. Side **546** has a groove **550** extending therealong. Similarly, side **548** has a groove **552** extending therealong. In addition, side **546** has a notch **553** formed therein. At the bottom of support **540** are flanges **554** and **556** that extend outwardly in opposite directions from sides **546** and **548**, respectively. Support **540** has a tab **543** extending upwardly from the upper end **542**. Tab **543** has outwardly extending projections **545A** and **545B** on

opposite sides, which are used to mount or couple the support **540** to the coupling platform **360**. (97) The supports **500**, **520**, and **540** are coupled to the coupling platform **360** and are slidably mounted in the repositionable portion **300** and are. The supports **500**, **520**, and **540** are movable between their lowered positions and raised positions relative to the repositionable portion **300**. Turning to FIG. **30**, a top view of the repositionable portion **300** is illustrated. Repositionable portion **300** has a body **310** with an upper surface **312** and is formed of upper member **340** and lower member **342**. In FIG. **30**, the top view is of the upper member **340** and only a small portion of lower member **342** is shown. The body **310** (including both the upper member **340** and lower member **342**) has three slots formed therethrough, each of which has one of the supports **500**, **520**, and **540** slidably mounted therein. Slot **325** is configured to slidably receive support **500** and has rails **325A** and **325B** that engage grooves **510** and **512**, respectively. Slot **326** is configured to slidably receive support **520** and has rails **326A** and **326B**, with rail **326A** engaging groove **530** of support **520**. Slot **327** is configured to slidably receive support **540** and has rails **327A** and **327B** that engage grooves **550** and **552**, respectively.

(98) Turning to FIGS. **31** and **32**, bottom views of coupling platform **360** is illustrated. In FIG. **31**, the bottom surface **365** of body **362** of the coupling platform **360** is shown. Extending from the bottom surface **365** are three mounting structures **600**, **620**, and **640** to which the supports **500**, **520**, and **540** are coupled, respectively, as shown in FIG. **32**.

(99) Referring to FIG. **31**, in this embodiment, mounting structure **600** has a wall **602** that defines a receptacle **604**. A slot **606** is defined in and is formed through the body **362** and is in communication with receptacle **604**. A pair of projections **608** and **610** extend inwardly into the slot **606** from opposite sides of the slot **606**. When the support **500** is inserted into the mounting structure **600**, the support **500** can be coupled to the coupling platform **360**. The upper end **502** of support **500** is inserted into receptacle **604** and tab **503** engages slot **606**, which causes projections **505A** and **505B** to engage and pass over projections **608** and **610**, respectively. The engagement of projections **505A** and **505B** and projections **608** and **610** keeps support **500** mounted to coupling platform **360**. To separate support **500** from coupling platform **360**, a user can pull on support **500** downwardly to cause projections **505A** and **505B** to pass over and disengage from projections **608** and **610**.

(100) Support **520** is similarly mounted to coupling platform **360**. Mounting structure **620** has a wall **622** that defines a receptacle **624**. A slot **626** is defined in and is formed through the body **362** and is in communication with receptacle **624**. A pair of projections **628** and **630** extend inwardly into the slot **626** from opposite sides of the slot **626**. When the support **520** is inserted into the mounting structure **620**, the support **520** can be coupled to the coupling platform **360**. The upper end **522** of support **520** is inserted into receptacle **624** and tab **523** engages slot **626**, which causes projections **525A** and **525B** to engage and pass over projections **628** and **630**, respectively. The engagement of projections **525A** and **525B** and projections **628** and **630** keeps support **520** mounted to coupling platform **360**. To separate support **520** from coupling platform **360**, a user can pull on support **520** downwardly to cause projections **525A** and **525B** to pass over and disengage from projections **628** and **630**.

(101) Support **540** is also similarly mounted to coupling platform **360**. Mounting structure **640** has a wall **642** that defines a receptacle **644**. A slot **646** is defined in and formed through the body **362** and is in communication with receptacle **644**. A pair of projections **648** and **650** extend inwardly into the slot **646** from opposite sides of the slot **646**. When the support **540** is inserted into the mounting structure **640**, the support **540** can be coupled to the coupling platform **360**. The upper end **542** of support **540** is inserted into receptacle **644** and tab **543** engages slot **646**, which causes projections **545A** and **545B** to engage and pass over projections **648** and **650**, respectively. The engagement of projections **545A** and **545B** and projections **648** and **650** keeps support **540** mounted to coupling platform **360**. To separate support **540** from coupling platform **360**, a user can pull on support **540** downwardly to cause projections **545A** and **545B** to pass over and disengage

from projections **648** and **650**.

(102) Turning to FIGS. **33-36**, perspective views showing the movement and positions of supports **500**, **520**, and **540** are illustrated. Initially referring to FIG. **33**, a user has grasped repositionable portion **300** and moved it relative to base portion **120**. Repositionable portion **300** is in an intermediate position **307** in FIG. **33**. The user can move repositionable portion **300** along the direction of arrow “K” to locate the repositionable portion **300** in its folded position **306** on top of the base portion **120**. Alternatively, the user can move the repositionable portion **300** along the direction of arrow “L” to locate the repositionable portion **300** in its deployed or unfolded position **308** in an end-to-end arrangement with base portion **120**. Movement of the repositionable portion **300** relative to the base portion **120** is accomplished via coupling arms **210** and **230**, which, as described above, are coupled to portions **120** and **300**. In FIG. **33**, it is noteworthy that the removable transporter **400** has been decoupled and removed from the coupling platform **360**. When the coupling platform **360** (by way of the removable transporter **400**) is not used to move the repositionable portion **300** relative to the base portion **120**, the supports **500**, **520**, and **540** extend downwardly from the repositionable portion **300**. In other words, when repositionable portion **300** is moved along the direction of arrow “M”, the supports **500**, **520**, and **540** move along the direction of arrow “N” to their lowered positions. In FIG. **33**, only supports **500** and **540** are illustrated in their respective lowered positions **518A** and **558A**.

(103) Referring to FIGS. **34** and **35**, the coupling platform **360** and repositionable portion **300** are shown in their deployed position **308**. In this position **308**, repositionable portion **300** engages a support surface. The lower ends **504**, **524**, and **544** of the downwardly extending supports **500**, **520**, and **540**, which are mounted to the coupling platform **360**, engage the support surface and force the supports **500**, **520**, and **540** along the direction of arrow “O” to their raised positions **518B**, **538B**, and **558B**, respectively. A few features of the coupling platform **360** are also shown in FIG. **34**. In particular, the upper surface **364** of coupling platform **360** has latches **376** and **378** extending therethrough. In FIG. **35**, the removable transporter **400** is coupled to the latches **376** and **378** of the coupling platform **360**.

(104) Turning to FIG. **36**, the repositionable portion **300**, shown in its intermediate position **307**, can be moved by a user along the directions of arrow “K” or arrow “L”. While parts of coupling arms **210** and **230** are shown, the base portion **120** is not shown. When a user grasps the handle of the removable transporter **400** and lifts upwardly to move the repositionable portion **300** along the direction of arrow “K”, the coupling platform **360** is also lifted upwardly because it is coupled to the removable transporter **400**. The supports **500**, **520**, and **540**, which are mounted to the lower surface **365** of coupling platform **360**, are also moved to their raised positions **518B**, **538B**, and **558B**, respectively, in which they extend upwardly above the top of the repositionable portion **300**. In these positions, the lower ends **504** and **544** of supports **500** and **540** extend downwardly below the lower surface of the lower member **342**. The flanges **514** and **516** on support **500** and the flanges **554** and **556** on support **540** limit the upward movement of the supports **500** and **540** (and as a result, the upward movement of coupling platform **360** as well) relative to the repositionable member **300**.

(105) By having the supports **500**, **520**, and **540** slidably mounted relative to the repositionable member **300**, the risk of a pinch point for a user's fingers between the arms **210** and **230** and the portions **120** and **300** when a user is moving the repositionable portion **300** and removable transporter **400** back to the folded position **306** on top of the base portion **120** is mitigated. This mitigation is due to the supports **500**, **520**, and **540** being movably mounted and not fixed in place.

(106) While the toy vehicle body presented herein is illustrated and described in detail and with reference to specific embodiments thereof, it is nevertheless not intended to be limited to the details shown, since it will be apparent that various modifications and structural changes may be made therein without departing from the scope of the disclosure and within the scope and range of equivalents of the claims. In addition, various features from one of the embodiments may be

incorporated into another of the embodiments. That is, it is believed that the disclosure set forth above encompasses multiple distinct embodiments with independent utility. While each of these embodiments has been disclosed in a preferred form, the specific embodiments thereof as disclosed and illustrated herein are not to be considered in a limiting sense as numerous variations are possible. The subject matter of the disclosure includes all novel and non-obvious combinations and subcombinations of the various elements, features, functions and/or properties disclosed herein. Accordingly, it is appropriate that the appended claims be construed broadly and in a manner consistent with the scope of the disclosure as set forth in the following claims.

(107) Additionally, it is to be understood that terms such as “first,” “second,” “left,” “right,” “top,” “bottom,” “front,” “rear,” “side,” “height,” “length,” “width,” “upper,” “lower,” “interior,” “exterior,” “inner,” “outer” and the like as may be used herein, merely describe points of reference and do not limit the present disclosure to any particular orientation or configuration. Further, the term “exemplary” is used herein to describe an example or illustration. Any embodiment described herein as exemplary is not to be construed as a preferred or advantageous embodiment, but rather as one example or illustration of a possible embodiment of the disclosure.

(108) Moreover, when used herein, the term “comprises” and its derivations (such as “comprising,” “includes,” “including,” etc.) should not be understood in an excluding sense, that is, these terms should not be interpreted as excluding the possibility that what is described and defined may include further elements, steps, etc. Similarly, where any description recites “a” or “a first” element or the equivalent thereof, such disclosure should be understood to include incorporation of one or more such elements, neither requiring nor excluding two or more such elements. Meanwhile, when used herein, the term “approximately” and terms of its family (such as “approximate”, etc.) should be understood as indicating values very near to those which accompany the aforementioned term. That is to say, a deviation within reasonable limits from an exact value should be accepted, because a skilled person in the art will understand that such a deviation from the values indicated is inevitable due to measurement inaccuracies, etc. The same applies to the terms “about” and “around” and “substantially”. For example, the term “approximately” can denote a tolerance of plus or minus 0.002 inches, 0.001 inches, or up to 0.005 inches, or similarly, the term may denote a tolerance of approximately $\pm 1.0\%$. The same applies to the terms “about” and “around” and “substantially.” Moreover, for the purposes of the present disclosure, the phrase “A and/or B” means (A), (B), or (A and B), and the phrase “A, B, and/or C” means (A), (B), (C), (A and B), (A and C), (B and C), or (A, B and C).

Claims

1. A reconfigurable toy vehicle transporter, comprising: a toy vehicle transporter that is reconfigurable between a first configuration and a second configuration, the toy vehicle transporter including: a base portion including a first surface having a first track, the base portion including a first compartment in which a toy vehicle can be stored; and a repositionable portion movably coupled to the base portion, the repositionable portion having a second compartment in which a toy vehicle can be stored, the repositionable portion including a second surface having a second track, the repositionable portion being placeable in a first position located above the first surface of the base portion and in a second position in an end-to-end arrangement with the base portion in which the first track and the second track are aligned and continuous; and a removable transporter that is separable from and removably coupleable to the toy vehicle transporter, wherein the removable transporter has a third compartment in which a toy vehicle can be stored.

2. The reconfigurable toy vehicle transporter of claim 1, wherein the toy vehicle transporter includes a first arm and a second arm, each of the first arm and the second arm is pivotally coupled to the base portion and also pivotally coupled to the repositionable portion, and the repositionable portion is moved relative to the base portion via movement of the first arm and the second arm.

3. The reconfigurable toy vehicle transporter of claim 2, wherein the first arm is coupled to the base portion at a first location and coupled to the repositionable portion at a second location, the second arm is coupled to the base portion at a third location and coupled to the repositionable portion at a fourth location, the first location being forward of the third location, and the second location being forward of the fourth location.
4. The reconfigurable toy vehicle transporter of claim 2, wherein the base portion has a first slot and the repositionable portion has a second slot, and the first arm and the second arm are located in the first slot and the second slot when the repositionable portion is in its first position above the base portion.
5. The reconfigurable toy vehicle transporter of claim 1, wherein the base portion has an outlet opening that is in communication with the first track, the repositionable portion has a launcher proximate to the second track, and when the repositionable portion is in its second position, the launcher can be actuated to launch a toy vehicle along the second track, then along the first track, and then through the outlet opening.
6. The reconfigurable toy vehicle transporter of claim 1, wherein the removable transporter includes a body having an inlet through which toy vehicles can be collected from a support surface.
7. The reconfigurable toy vehicle transporter of claim 1, wherein the removable transporter includes a body having a first side and a second side opposite the first side, the body includes a first wing pivotally mounted to the first side, a second wing pivotally mounted to the second side, and an input member that can be actuated to cause the first wing and the second wing to pivot relative to the body of the removable transporter.
8. The reconfigurable toy vehicle transporter of claim 7, wherein the body includes an internal receptacle, the first wing includes a first track portion that is oriented toward the internal receptacle, and a toy vehicle can be placed on the first track portion of the first wing and can travel from the first wing to the internal receptacle.
9. The reconfigurable toy vehicle transporter of claim 1, wherein the repositionable portion includes a holding member pivotally connected to the repositionable portion, and the holding member engages the removable transporter when the removable transporter is placed on the toy vehicle transporter.
10. The reconfigurable toy vehicle transporter of claim 1, wherein the toy vehicle transporter has a locking member, and the removable transporter has a release mechanism that can be actuated to decouple the removable transporter from the toy vehicle transporter.
11. A reconfigurable toy vehicle transporter, comprising: a toy vehicle transporter that is reconfigurable between a first configuration and a second configuration, the toy vehicle transporter including: a base including a first compartment in which a toy vehicle can be stored; and a repositionable portion movably coupled to the base, the repositionable portion having a second compartment in which a toy vehicle can be stored, the repositionable portion being placeable in a first position above the base and in a second position in an end-to-end arrangement with the base; and a removable transporter that is separable from and removably coupleable to the toy vehicle transporter, wherein the removable transporter has a third compartment in which a toy vehicle can be stored and the removable transporter has a toy vehicle intake mechanism that can collect toy vehicles from a support surface.
12. The reconfigurable toy vehicle transporter of claim 11, wherein the toy vehicle transporter includes an arm that is pivotally coupled to the base and pivotally coupled to the repositionable portion, and the repositionable portion is moved relative to the base via the arm.
13. The reconfigurable toy vehicle transporter of claim 12, wherein the removable transporter includes a body having a wing pivotally mounted thereto, an actuator that can be engaged by a user to move the wing relative to the body of the removable transporter, and an internal receptacle that receives a toy vehicle that travels along the wing into the internal receptacle.
14. The reconfigurable toy vehicle transporter of claim 11, wherein the base has a first track, the

repositionable portion has a second track, and the second track is aligned with the first track when the repositionable portion is in its second position.

15. The reconfigurable toy vehicle transporter of claim 14, wherein the base has an outlet opening that is in communication with the first track, the repositionable portion has a launcher proximate to the second track, and when the repositionable portion is in its second position, the launcher can be actuated to launch a toy vehicle along the second track, then along the first track, and then through the outlet opening.

16. A reconfigurable toy vehicle transporter, comprising: a toy vehicle transporter including: a base having an upper surface with a track formed therein, the base including a first compartment in which a toy vehicle can be stored; and a repositionable portion movably coupled to the base, the repositionable portion having a second compartment in which a toy vehicle can be stored, the repositionable portion having its own upper surface with a track formed therein, the repositionable portion being placeable in a first position above the base and in a second position end-to-end with the base in which the tracks are aligned and continuous, the repositionable portion including a launcher that can be actuated to propel a toy vehicle along the track on the repositionable portion and then along the track on the base; and a removable transporter that is separable from and removably coupleable to the toy vehicle transporter, wherein the removable transporter has a third compartment in which a toy vehicle can be stored.

17. The reconfigurable toy vehicle transporter of claim 16, wherein the removable transporter includes a body has a first internal receptacle in which collected toy vehicles are disposed.

18. The reconfigurable toy vehicle transporter of claim 17, wherein the body has a wing pivotally mounted to the body, and an actuator that can be engaged to cause the wing to pivot relative to the body, the wing including a track portion that is directed toward a second internal receptacle in the body so that a toy vehicle placed on the track portion travels from the wing to the second internal receptacle.

19. The reconfigurable toy vehicle transporter of claim 16, wherein the repositionable portion includes a holding member pivotally connected to the repositionable portion, and the holding member engages the removable transporter when the removable transporter is placed on the toy vehicle transporter.

20. The reconfigurable toy vehicle transporter of claim 16, wherein the toy vehicle transporter has a locking member, the removable transporter includes a release mechanism that can be actuated to decouple the removable transporter from the toy vehicle transporter.
