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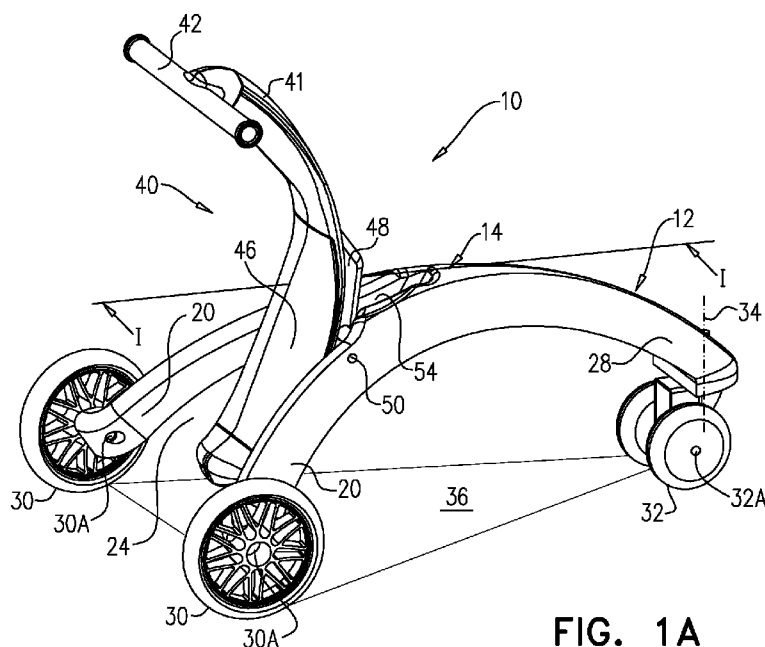


FIG. 1A

(57) Abstract: A toddler riding toy is provided, comprising a seat, a frame member having a bridging portion with two spaced apart rear legs extending from a rear portion thereof and giving rise to a walking space therebetween, and at least one front leg extending from a front portion of the bridging portion. Each of the legs comprises a wheel at its respective bottom end. Bottommost points of the wheels define a ground rolling plane. The riding toy further comprises a handle assembly with at least one gripping portion, the handle assembly being articulated to the bridging portion and angularly manipulable between a walk-behind position and a ride-on position.



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TODDLER RIDING TOY

TECHNOLOGICAL FIELD

The present disclosure is directed to a toddler riding toy. More particularly the disclosure is directed toward a riding toy which is configured to be converted between at least two different positions.

5 BACKGROUND

Riding toys, such as tricycles, are commonly provided for use by toddlers. They typically comprises three or more wheels, a seat, and a handle for gripping and/or steering during use. Some such riding toys further comprise an additional handle provided at a height such that the toddler may grip it and push the riding toy while in a
10 standing position.

SUMMARY

A toddler riding toy comprising a seat, a frame member having a bridging portion with two spaced apart rear legs extending from a rear portion thereof and giving rise to a walking space therebetween, and at least one front leg extending from a front
15 portion of the bridging portion;

each of the legs comprising a wheel at its respective bottom end, bottommost points of the wheels defining a ground rolling plane;

the riding toy further comprising a handle assembly with at least one gripping portion, the handle assembly being articulated to the bridging portion and angularly
20 manipulable between a walk-behind position and a ride-on position.

The term *walk-behind position* as used herein the specification and claims refers to a configuration in which the riding toy is configured to be pushed across the ground by a toddler walking therebehind, within the walking space, while gripping a gripping portion of the handle assembly when disposed rear of the bridging portion.

25 The term *ride-on* position as used herein the specification and claims refers to a configuration in which the riding toy is configured to be used by a toddler sitting on the seat. In this position the toddler may ride the riding toy by pushing his feet against the

- 2 -

ground surface or by an individual pushing/pulling the riding toy, while gripping a gripping portion of the handle assembly when disposed front of the bridging portion.

The seat may extend above the bridging portion at least in the ride-on position.

According to a first configuration, the handle assembly may be angularly
5 manipulable about a tilt axis extending substantially parallel to the ground rolling plane.

The tilt axis may extend through the bridging portion.

According to a second configuration, the handle assembly may be angularly manipulable about a rotation axis extending about an axis intersecting the ground rolling plane.

10 The pivot axis may extend substantially normal to the ground rolling plane.

According to either of the first and second configurations, the handle assembly may be rigidly connected with the seat, e.g., formed unitarily therewith or as a separate element attached thereto, whereby manipulating the handle assembly entails corresponding displacement of the seat.

15 According to a third configuration, the handle assembly may be an arcuate member angularly manipulable about a sliding path, and having a sliding axis center extending substantially parallel to the ground rolling plane.

The sliding axis center may extend above the bridging portion, with the sliding path extending parallel to a longitudinal axis of the toddler riding toy.

20 The elevation of the gripping portion of the handle assembly may be adjustable by sliding displacement of the handle assembly.

According to a fourth configuration, the handle assembly is angularly manipulable about a pivot axis extending along at least a portion of the bridging portion, between the rear portion thereof and the front portion thereof.

25 The pivot axis may extend substantially parallel to the ground rolling plane, along a sliding path extending parallel to a longitudinal axis of the riding toy.

According to either of the third and fourth configurations, the handle assembly may be independent of the seat.

According to either of the third and fourth configurations, the seat may be
30 integral with the bridging portion of the frame member.

According to any of the above configurations, the frame member may be formed as a unitary member.

- 3 -

According to any of the above configurations, the frame member may have an arcuate shape, with an apex thereof extending at the bridging portion.

According to any of the above configurations, in both the walk-behind and ride-on positions, the gripping portion of the handle assembly extends above the seat.

5 According to any of the above configurations, each of said wheels is characterized by an axis of rotation being parallel to the ground rolling plane.

According to any of the above configurations, at least a front wheel, being articulated at a bottom end of the at least front leg, may be a caster wheel.

According to any of the above configurations, the handle assembly may be
10 configured for being arrested at two or more distinct angular manipulation locations, corresponding with at least the walk-behind position and the ride-on position. The toddler riding toy may further comprise a locking mechanism configured for arresting the handle assembly at one of the walk-behind and ride-on positions.

According to any of the above configurations, the seat may be detachably
15 attachable to the bridging portion of the frame member.

According to any of the above configurations, the handle assembly may comprise a rear gripping portion to be used in the walk-behind position and a front gripping portion to be used in the ride-on position.

According to any of the above configurations, in the ride-on position the
20 gripping portion of the handle assembly may extend between a center of the seat and a bottom end of the at least one front leg, and in the walk-behind position the gripping portion of the handle assembly may extend between a center of the seat and a bottom end of the rear legs.

According to any of the above configurations, in the ride-on position the
25 gripping portion of the handle assembly may extend between a center of the bridging portion and a bottom end of the at least front leg, and in the walk-behind position the gripping portion of the handle assembly may extend between a center of the bridging portion and a bottom end of the rear legs.

According to any of the above configurations, the frame member may comprise
30 two rear legs and one front leg, the riding toy being a tricycle.

According to any of the above configurations, at a planar projection, the frame may be substantially Y-shaped.

- 4 -

According to any of the above configurations, the frame member may comprise two rear legs and two front legs, e.g., the frame being substantially X-shaped at a planar projection. The two front legs may give rise to an auxiliary (i.e., front) walking space therebetween, facilitating use of the toddler riding toy in the walk-behind position in
5 two opposite directions (accordingly, the terms “front” and “rear,” when used in connection with the riding toy, may refer to either side thereof).

According to any of the above configurations, the gripping portion may be configured to extend substantially parallel to the ground rolling plane.

According to any of the above configurations, the toddler riding toy may further
10 comprise at least one accessory unit. The accessory unit may be selected from a group including a storage container, an activity accessory, and an amusement accessory. The accessory unit may be detachably attachable to the frame member or the handle assembly.

According to any of the above configurations, the wheel at the bottom end of the
15 at least one front leg may be selected from a group including a fixed wheel, a free swivel wheel, and a lockable swivel wheel.

According to any of the above configurations, the toddler riding toy further comprises a push rod, for example being detachably attachable, articulated to a rear portion thereof, facilitating manipulating the toddler riding toy by an adult walking
20 therebehind.

According to any of the above configurations, the toddler riding toy further comprises a foot rest, for example being detachably attachable, articulated to the frame at a front portion thereof.

According to any of the above configurations, one or more of the wheels
25 comprises a speed control mechanism configured for reducing the rotational speed of and/or arresting its respective wheel.

BRIEF DESCRIPTION OF THE DRAWINGS

In order to better understand the subject matter that is disclosed herein and to exemplify how it may be carried out in practice, embodiments will now be described,
30 by way of non-limiting example only, with reference to the accompanying drawings, in which:

- 5 -

Fig. 1A is a perspective rear view of The toddler riding toy according to a first example of the disclosure, in a walk-behind position;

Fig. 1B is a front perspective view of the riding toy of Fig. 1A;

Fig. 1C is a top planar view of the riding toy of Fig. 1A;

5 **Fig. 1D** is a side view of the riding toy of Fig. 1A;

Fig. 1E is a section along line I- I in Fig. 1A;

Fig. 2A is a perspective rear view of the riding toy of Fig. 1A, in a ride-on position;

Fig. 2B is a top planar view of the riding toy of Fig. 2A;

10 **Fig. 2C** is a side view of the riding toy of Fig. 2A;

Fig. 2D is a section along line II- II in Fig. 2A;

Fig. 3A is a perspective rear view of a riding toy according to a second example of the disclosure, in a walk-behind position;

Fig. 3B front perspective view of the riding toy of Fig. 3A;

15 **Fig. 3C** is a top planar view of the riding toy of Fig. 3A;

Fig. 3D a side view of the riding toy of Fig. 3A;

Fig. 3E is a section along line III- III in Fig. 3A;

Fig. 4A is a perspective front view of the riding toy of Fig. 3A, in a ride-on position;

20 **Fig. 4B** is a side view of the riding toy of Fig. 4A;

Fig. 4C is a top planar view of the riding toy of Fig. 4A;

Fig. 4D is an flipped-over section along line IV- IV in Fig. 4A;

Fig. 5A is a perspective rear view of a riding toy according to a third example of the disclosure, in a walk-behind position;

25 **Fig. 5B** front perspective view of the riding toy of Fig. 5A;

Fig. 5C is a top planar view of the riding toy of Fig. 5A;

Fig. 5D is a section along line V- V in Fig. 5A;

Fig. 6A is a perspective front view of the riding toy of Fig. 5A, in a ride-on position;

30 **Fig. 6B** a side view of the riding toy of Fig. 6A;

Fig. 6C is a top planar view of the riding toy of Fig. 6A;

Fig. 6D is a section along line VI- VI in Fig. 6A;

- 6 -

Fig. 6E illustrates the riding toy of Figs. 5A and 6A. with the handle assembly at an intermediate elevated position;

Fig. 7A is a perspective front view of a riding toy according to a fourth example of the disclosure, in a walk-behind position;

5 **Fig. 7B** is a rear perspective right side view of the riding toy of Fig. 7A;

Fig. 7C is a rear perspective left side view of the riding toy of Fig. 7A;

Fig. 7D is a top planar view of the riding toy of Fig. 7A;

Fig. 7E is a section along line VII- VII in Fig. 7C;

10 **Fig. 8A** is a perspective front view of the riding toy of Fig. 7A, in a ride-on position;

Fig. 8B is a rear perspective view of the riding toy of Fig. 8A;

Fig. 8C is a top planar view of the riding toy of Fig. 8A;

Fig. 8D is a section along line VIII- VIII in Fig. 8A;

15 **Figs. 9A** and **9B** illustrate another embodiment according to the first example of the disclosure, in the walk-behind position and in the ride-on position, respectively;

Figs. 10A to **10D** are directed to yet an embodiment of the disclosure, wherein the riding toy comprises four legs, wherein:

Fig. 10A is a front perspective view of the toddler riding toy, at walk-behind position;

20 **Fig. 10B** is a top planar view of Fig. 10A;

Fig. 10C is a front perspective view of the toddler riding toy, at ride-on position; and

Fig. 10D is a top planar view of Fig. 10C.

DETAILED DESCRIPTION OF EMBODIMENTS

25 Attention is first directed to Figs. 1A to 2D of the drawings, directed to a toddler riding toy in the form of a tricycle, according to a first example of the present disclosure, generally designated **10**. The riding toy **10** comprises a frame member **12**, for example provided as a unitary member, such as from a molded plastic material, facilitating providing a lightweight structure which provides suitable structural strength,
30 and which may be reinforced (e.g., by structural features, composite materials, etc.). It will be appreciated that the frame member **12** may be made of any other suitable

- 7 -

material, e.g., wood, metal, etc., without departing from the scope of the presently disclosed subject matter, *mutatis mutandis*.

As can best be seen in Figs. 1C and 2B the frame **12** has a Y-shaped planar projection (e.g., having two projections in one direction and one in an opposite
5 direction, such as rear legs **20** and front leg **28** described below; seen best in top views of Figs. 1C and 2B), though when viewed at a side view (e.g., in Figs. 1D and 2C), the frame member **12** has an arcuate shape, with an apex thereof extending at a bridging portion generally referred to at **14**. It is appreciated that according to other examples (not shown) the frame member can be provided with any suitable shape without
10 departing from the scope of the presently disclosed subject matter, *mutatis mutandis*. Moreover, it will be appreciated that while the present description and accompanying drawings disclose three- and four-wheeled riding toys (e.g., as with reference to and illustrated in Figs. 10A-10C), this is by way of example only, and other configurations of riding toys (e.g., with different numbers of wheels) may be provided without
15 departing from the scope of the presently disclosed subject matter, *mutatis mutandis*.

Extending from a rear portion of the frame member **12** there are two spaced apart rear legs **20**, giving rise to a walking space **24** therebetween, said space sized sufficiently to accommodate a toddler to walk therein behind the riding toy, and a front leg **28** extending from a front portion of the bridging portion **14**. Each of the two rear
20 legs **20** comprises a fixed axis wheel **30**, and the front leg **28** comprises a twin swivel wheel **32** (rotatable about a substantially vertical axis **34**). The three wheels **30** and **32** define together an imaginary ground rolling plane, namely plane **36** (Figs. 1A and 1D), with each of the wheels **30** and **32** being articulated to its respective bottom leg portion by a horizontally disposed axes **30A** and **32A**, respectively, with said axles extending
25 parallel to the imaginary ground rolling plane **36**.

Pivotaly articulated at a rear portion of the bridging portion **14** there is an arcuate handle assembly generally designated **40**, said handle assembly integrally configured at a front portion thereof with a gripping portion comprising an arm portion **41** and two laterally disposed handle grips **42**) and a saddle-shaped seat portion **46**
30 comprising an ergonomic surface so as to comfortably accommodate a toddler when seated thereover in the ride-on position, as will be discussed herein after. Seat portion **46** can also be cushioned.

- 8 -

The handle assembly **40** is further configured at a bottom face thereof with a keel-shaped articulation member **48** which in turn is pivotally coupled to the frame member **12** about a pivot axis **50** (best seen in Fig. 1E) disposed within a receiving recess **54** at the top surface of the bridging portion **14** of the frame member **12**. It is appreciated that the axis **50** is a tilt axis extending substantially parallel to the ground rolling plane **36** (and likewise to the axes **30A** and **32A** of the wheels).

Further noted, the articulation member **48** is configured for snap engagement within the receiving recess **54**, thereby retaining the riding toy in the ride-on position (Figs. 2A-2D) and preventing spontaneous pivotal displacement into the walk-behind position. It is appreciated that other locking arrangement can be configured, such as locking latch, secure pin, etc. A rear, bottom face of the articulation member **48** comprises an arresting recess **60** and a locking latch **62** for snap arresting over a locking bar **64** extending between the rear legs **20**, adjacent the bridging portion **14**, whereby when the handle assembly **40** is angularly manipulable about the pivot/tilt axis **50** into the walk-behind position (Figs. 1A-1E) the locking bar **64** arrests within said arresting recess **60**, thus preventing spontaneous release therefrom. However, detaching the locking latch **62** facilitates disengagement of the locking bar **64** from the arresting recess **60**, whereby the handle assembly **40** can now be angularly manipulable about the pivot/tilt axis **50**, in direction of arrow **70** (Fig. 1D) into the ride-on position (Figs. 2A-2D).

Further attention is now directed to Figs. 3A to 4D illustrating a riding toy according to a second example of the present disclosure, wherein, for sake of simplicity like elements as in the previous example are designated with like reference numbers, however shifted by 100.

The riding toy, generally designated **110**, comprises a frame member **112** having a Y-shaped planar projection (as seen best in top views of Figs. 3C and 4C), though when viewed at a side view (e.g., as seen in Figs. 3D and 4D), the frame member **112** has an arcuate shape, with an apex thereof extending at a bridging portion generally referred to at **114**. As already discussed above, the frame member can assume different shapes, however without departing from the general concept of the disclosure.

Extending from a rear portion of the frame member **112** there are two spaced apart rear legs **120**, giving rise to a walking space **124** therebetween, said space sized sufficiently to allow a toddler to freely walk behind the riding toy within that space, and

- 9 -

a front leg **128** extending from a front portion of the bridging portion **114**. Each of the two rear legs **120** comprises a fixed axis wheel **130**, and the front leg **128** comprises a twin swivel wheel **132** (rotatable about a substantially vertical axis **134**). The three wheels **130** and **132** define together an imaginary ground rolling plane, namely plane **136** (Figs. 3B and 4A), with each of the wheels **130** and **132** being articulated to its respective bottom leg portion by a horizontally disposed axes **130A** and **132A**, respectively, with said axles extending parallel to the imaginary ground rolling plane **136**.

Pivotally articulated at a rear portion of the bridging portion **14** there is an arcuate handle assembly generally designated **140**, said handle assembly comprising an upwardly extending gripping portion comprising an arm portion **141** and two laterally disposed handle grips **142**, and a saddle-shaped seat portion **146** comprising an ergonomic surface so as to comfortably accommodate a toddler when seated thereover in the ride-on position, as will be discussed herein after. Seat portion **146** can also be cushioned.

The handle assembly **140** is pivotally articulated to the bridging portion by a hub axle **150** (which in the present example extends substantially normal to the plane **136**) defining a rotating axis **152**, said axle **150** disposed within a receptacle **155** configured at the bridging portion **114** wherein the handle assembly **140** is angularly manipulable about the rotation axis **152**. It is seen that a bottom surface **157** of the handle assembly **140** is substantially flush against a top surface **159** of the bridging portion **114**, such that the handle assembly **140** is smoothly rotatable thereabout. However, arresting notches/recess can be configured (not seen) for detachably arresting the handle assembly **140** at the two respective portions, namely the walk-behind position (Figs. 3A to 3E) and the ride-on position (Figs. 4A to 4D).

The arrangement is such that the handle assembly **140** is angularly manipulable by 180° about the rotation axis **152**, in direction of arrow **170** (Figs. 3D and 4B) between the walk-behind position (Figs. 3A-3E) where the arm portion **141** of the handle assembly **140** faces forward and is disposed above the seat **146** and between a front portion of the bridging portion **114** and the bottom end of the front leg **128**, and between the ride-on position (Figs. 4A to 4D) wherein the arm portion **141** of the handle assembly **140** faces backward and is disposed above the seat **146** and between a rear portion of the bridging portion **114** and the bottom end of the rear legs **130**.

- 10 -

Further attention is now directed to Figs. 5A to 6E illustrating a riding toy according to a third example of the present disclosure, wherein, for sake of simplicity like elements as in the first example are designated with like reference numbers, however shifted by 200.

5 The riding toy of the third example, generally designated **210**, comprises a frame member **212** having a Y-shaped planar projection (as seen best in top views of Figs. 5C and 6C), though when viewed at a side view (e.g., as seen in Figs. 5B and 6B), the frame member **212** has an arcuate shape, with an apex thereof extending at a bridging portion generally referred to at **214**. As already discussed above, the frame member can
10 assume different shapes, however without departing from the general concept of the disclosure.

Extending from a rear portion of the bridging portion **114** of the frame member **212**, there are two spaced apart rear legs **220**, giving rise to a walking space **224** therebetween, said space sized sufficiently to allow a toddler to freely walk behind the
15 riding toy within that space, and a front leg **228** extending from a front of the bridging portion **214**. Each of the two rear legs **220** comprises a fixed axis wheel **230** and the front leg **228** comprises a twin swivel wheel **232** (rotatable about a substantially vertical axis **234**). The three wheels **230** and **232** define together an imaginary ground rolling plane, namely plane **236** (Figs. 5B and 6A), with each of the wheels **230** and **232** being
20 articulated to its respective bottom leg portion by a horizontally disposed axes **230A** and **232A**, respectively, with said axles extending parallel to the imaginary ground rolling plane **236**.

The bridging portion **214** comprises a saddle-shaped seat portion **246** comprising an ergonomic surface so as to comfortably accommodate a toddler when
25 seated thereover in the ride-on position, where said seat portion **246** can also be cushioned. An arcuate tunnel **235** (Figs. 5D and 6D) extends through the bridging portion **214** between a front opening at **237** and a rear opening at **239**, and having a projection along a longitudinal axis of the riding toy **210**.

Slidingly received within the arcuate tunnel **235** there is a handle assembly
30 generally designated **240** configured as an arcuate rigid bar having a radius similar to that of the tunnel **235**, and being snugly angularly manipulable about a sliding path in direction of arrow **270**, with an imaginary sliding radius R orienting from an imaginary center point **241** (Fig. 5D), wherein the sliding axis center, i.e., center point **241**,

- 11 -

extends substantially parallel to the ground rolling plane **236**, with said sliding axis center extends above the bridging portion **214** and the sliding path extends parallel to a longitudinal axis of the riding toy **210** (center handle assembly line **211** in Fig. 5C).

A rear end of the handle assembly **240** comprises two laterally disposed rear
5 handle grips **242R** and, similarly, a front end of the handle assembly **240** comprises two laterally disposed front handle grips **242F**.

The handle assembly **240** is angularly/pivotally articulated, namely slidably
displaceable about a sliding path having a sliding axis center **241** extending
substantially parallel to the ground rolling plane **236** and extending above the bridging
10 portion **214**. Thus, the handle assembly **240** is slidably manipulable between a walk-
behind position (Figs. 5A to 5D) and a ride-on position (Figs. 6A to 6D), wherein in the
walk-behind position the handle assembly **240** is slidably displaces so as to be exposed
mostly at a rear of the riding toy **210**, with the rear handle grips **242R** disposed remote
from the seat **246**, and in the ride-on position the handle assembly **240** is slidably
15 displaces so as to be exposed mostly at a front of the riding toy **210**, with the front
handle grips **242F** disposed remote from the seat **246**.

Fig. 6E illustrates the riding toy **210** according to the third example, however
wherein the handle assembly **240** is disposed at an intermediate position, whereby the
rear handle grips **242R** extend at a lower height from the imaginary ground rolling
20 plane **236**, rendering suitable for use also for a shorter toddler at the walk behind
position, and likewise, in the ride-on position, a smaller toddler can easily grip the front
handle grips **242F**.

With final reference being made to Figs 7A to 8D, there is illustrated a riding
toy according to a fourth example of the present disclosure, wherein, for sake of
25 simplicity like elements as in the first example are designated with like reference
numbers, however shifted by 300.

Similar to the previously disclosed examples, the riding toy of the fourth
example, generally designated **310**, comprises a frame member **312** having a Y-shaped
planar projection (as seen best in top views of Figs. 7D and 8C), though when viewed at
30 a side view (e.g., as seen in Figs. 7A and 8A), the frame member **312** has an arcuate
shape, with an apex thereof extending at a bridging portion generally referred to at **314**.
As already discussed above, the frame member can assume different shapes, however
without departing from the general concept of the disclosure.

- 12 -

Extending from a rear portion of the bridging portion **314** of the frame member **312**, there are two spaced apart rear legs **320**, giving rise to a walking space **324** therebetween, said space sized sufficiently to allow a toddler to freely walk behind the riding toy within that space, and a front leg **328** extending from a front of the bridging portion **314**. Each of the two rear legs **320** comprises a fixed axis wheel **330** and the front leg **328** comprises a twin swivel wheel **332** (rotatable about a substantially vertical axis **334**). The three wheels **330** and **332** define together an imaginary ground rolling plane, namely plane **336** (Figs. 7B and 7C), with each of the wheels **330** and **332** being articulated to its respective bottom leg portion by a horizontally disposed axes **330A** and **332A**, respectively, with said axles extending parallel to the imaginary ground rolling plane **336**.

The bridging portion **314** comprises a saddle-shaped seat portion **346** comprising an ergonomic surface so as to comfortably accommodate a toddler when seated thereover in the ride-on position, where said seat portion **346** can also be cushioned. A straight tunnel **335** (Figs. 7D and 8D) extends through the bridging portion **314** between a front opening at **337** and a rear opening at **339**, and along a longitudinal axis **311** (Figs. 7D and 8C) of the riding toy **310**.

A handle assembly generally designated **340** comprises a substantially straight portion **341** received within the tunnel **335** and configured for rotation about a longitudinal axis parallel to longitudinal axis **311**. A rear portion **343** of the handle assembly projecting from the bridging portion **314** through the rear opening **339** is bent at a near to right angle and comprises rear handle grips **342R**, and a front portion **345** of the handle assembly projecting from the bridging portion **314** through the front opening **337**, is bent at an opposite sense than the rear portion **343**, and however comprising a leg-detouring portion **349** and further configured at its end with front handle grips **342F**. The arrangement is such that the leg-detouring portion **349** is configured such that when the handle assembly **340** is disposed in the walk-behind position (Figs. 7A to 7E) the leg-detouring portion **349** facilitates rotating the handle assembly **240** at 180° about the longitudinal axis such that the front handle grips **342F** be disposed below the front leg **328**.

Thus, in the walk-behind position, (Figs. 7A to 7E) the rear handle grips **342R** are disposed behind and above the seat **346** and upon angular manipulation of the handle assembly, namely rotational in direction of arrow **370** (Fig. 7E) the riding toy

- 13 -

assumes the ride-on position (Figs. 8A to 8D), wherein the front handle portion **345** is useful in this position, with the front handle grips **342F** disposed in front and above the seat **346**. Upon rotating the handle assembly in direction of arrow **373** (Fig. 8B) the riding toy **320** re-assumes its walk-behind position.

5 With reference to Figs. 9A and 9B there is illustrated yet an embodiment of a riding toy according to the first example of the present disclosure, the riding toy is more schematically illustrated and is generally designated **350**, comprising a frame member **352** (having a Y-shaped planar projection as discussed herein before), has a bridging portion generally referred to at **354**. Extending from a rear portion of the frame member
10 **354** there are two spaced apart rear legs **356**, giving rise to a walking space **358** therebetween (said space sized sufficiently to allow a toddler to freely walk behind the riding toy within that space), and a front leg **360** extending from a front portion of the bridging portion **354**. Each of the two rear legs **356** comprises a fixed axis wheel **362** and the front leg **360** comprises a twin swivel wheel **364**. The three wheels **362** and **364**
15 define together an imaginary ground rolling plane designated **370**.

Pivotaly articulated at a rear portion of the bridging portion **354** there is a wide-angled L-shaped handle assembly generally designated **374**, said handle assembly comprising a gripping portion comprising an arm portion **376** and two laterally disposed handle grips **378**, and a saddle-shaped seat portion **380**.

20 The handle assembly **374** is pivotally coupled to the frame member **352** about a pivot axis **382** disposed at a rear, top portion of the bridging portion **354** of the frame member **352**. It is appreciated that the axis **382** is a tilt axis extending substantially parallel to the ground rolling plane **370**.

The arrangement is such that the handle assembly **374** is pivotally manipulable
25 about pivot axis **382** into a walk-behind position (Fig. 9A), wherein the handle assembly **374** is pivoted in direction of arrow **384**, wherein the handle grips **378** are disposed above and behind the seat portion **380** (and above and behind the bridging portion **354**), hereby a toddler can walk behind the riding toy **350**, at the walking space **358**, while gripping the handle grips **378**. Upon pivotally manipulating the handle assembly **374** in
30 an opposite direction indicated by arrow **385** in Fig. 9B, about pivot axis **382**, it assumes a ride-on position (Fig. 9B), wherein the handle grips **378** are disposed above and at front of the seat portion **380**, behind the front wheels.

- 14 -

It is further appreciated that a suitable arresting mechanism can be configured (not shown) for arresting the handle assembly **374** and preventing spontaneous pivotal displacement between the respective walk-behind position and ride-on position.

Turning now to Figs. 10A to 10D there is illustrated a modification of the riding toy illustrated in Figs. 9A and 9B, the riding toy generally designated **400**.

In fact, the riding toy **400** of Figs. 10A to 10D illustrates a handle assembly **404** similar to that disclosed in connection with the embodiment presented in Figs. 9A and 9B, and accordingly, like elements are designated with like reference numbers, however with a (') indication.

The riding toy **400** differs from the previous examples illustrated herein before, in particular, in the shape of the frame member **410** comprising a bridging portion **411** having two spaced, diverging rear legs **412** extending from a rear portion of the bridging portion **411**, and two spaced, diverging front legs **414** extending from a front portion of the bridging portion **411**, so as imparting the frame member an X-shape top planar projection, as viewed in Figs. 10B and 10D.

The spaced apart rear legs **412** give rise to a rear walking space **426** therebetween, and the spaced apart front legs **414** give rise to a front walking space **428** therebetween (said spaces sized sufficiently to allow a toddler to freely walk behind the riding toy within that space).

Each of the two rear legs **412** comprises a fixed axis wheel **428** and each of the front legs **414** comprises a wheel **430**. The four wheels **428** and **430** define together an imaginary ground rolling plane designated **432** (Fig. 10A).

Pivotaly articulated at a rear portion of the bridging portion **411** there is a wide-angled L-shaped handle assembly generally designated **374'**, said handle assembly comprising a gripping portion comprising an arm portion **376'** and two laterally disposed handle grips **378'**, and a saddle-shaped seat portion **380'**.

The handle assembly **374'** is pivotally coupled to the frame member **410** about a pivot axis **382'** disposed at a rear, top portion of the bridging portion **411** of the frame member **410**. It is appreciated that the axis **382'** is a tilt axis extending substantially parallel to the ground rolling plane **430**.

The arrangement is such that the handle assembly **374'** is pivotally manipulable about pivot axis **382'** into a walk-behind position (Figs. 10A and 10B), wherein the handle assembly **374'** is pivoted in direction of arrow **436**, wherein the handle grips

- 15 -

378' are disposed above and behind the seat portion 380' (and above and behind the bridging portion 411), hereby a toddler can walk behind the riding toy 400, at the rear walking space 426, while gripping the handle grips 378'. Upon pivotally manipulating the handle assembly 374' in an opposite direction, indicated by arrow 438 in Fig. 10C, about pivot axis 382', it assumes a ride-on position (Figs. 10C and 10D), wherein the handle grips 378' are disposed above and at front of the seat portion 380 (and above and in front of the bridging portion 411), behind the front wheels 430. At the particular configuration, at the ride on position of Figs. 10C and 10D, the riding toy 400 can be used also at a walk behind position, however pushing the toy in an opposite direction, i.e., with the toddler walking at the front space 428 and pushing towards the rear portion of the toy. Thus, the riding toy can be used in the walk-behind position at either front or rear direction, respectively, and irrespective of the terms 'front' and 'rear' associated with the structure of the riding toy.

As mentioned above, it is appreciated that a suitable arresting mechanism can be configured (not shown) for arresting the handle assembly 374' and preventing spontaneous pivotal displacement between the respective walk-behind position and ride-on position.

It is noted, that in all examples illustrated herein, at all the ride-on positions demonstrated according to all the described examples hereinabove, at the projected planar view, the respective handle bar extends between the bottom end of the at least one front leg and the bottom end of the rear legs, and more specifically, between the bottom end of the at least one front leg and a front portion of the bridging portion), whilst in the walk-behind position the respective handle bar extends between the bottom end of the rear legs and a rear portion of the bridging portion.

CLAIMS:

1. A toddler riding toy comprising a seat, a frame member having a bridging portion with two spaced apart rear legs extending from a rear portion thereof and giving rise to a walking space therebetween, and at least one front leg extending from a front
5 portion of said bridging portion;
each of said legs comprising a wheel at its respective bottom end, bottommost points of the wheels defining a ground rolling plane;
said riding toy further comprising a handle assembly with at least one gripping portion, said handle assembly being articulated to the bridging portion and angularly
10 manipulable between a walk-behind position and a ride-on position.
2. The toddler riding toy according to claim 1, wherein the seat extends above the bridging portion at least in the ride-on position.
3. The toddler riding toy according to any one of claims 1 and 2, wherein the handle assembly is angularly manipulable about a tilt axis extending substantially
15 parallel to the ground rolling plane.
4. The toddler riding toy according to claim 3, wherein the tilt axis extends through the bridging portion.
5. The toddler riding toy according to any one of the preceding claims, wherein the handle assembly is angularly manipulable about a rotation axis extending about an axis
20 intersecting the ground rolling plane.
6. The toddler riding toy according to claim 5, wherein the pivot axis extends substantially normal to the ground rolling plane.
7. The toddler riding toy according to any one of claims 3 through 6, wherein the handle assembly is rigidly connected with the seat, whereby manipulating the handle
25 assembly entails corresponding displacement of the seat.
8. The toddler riding toy according to any one of the preceding claims, wherein the handle assembly is an arcuate member angularly manipulable about a sliding path, and having a sliding axis center extending substantially parallel to the ground rolling plane.
9. The toddler riding toy according to claim 8, wherein the sliding axis center
30 extending above the bridging portion and the sliding path extending parallel to a longitudinal axis of the riding toy.

- 17 -

- 10.** The toddler riding toy according to any one of claims 8 and 9, wherein elevation of the gripping portion of the handle assembly is adjustable by sliding displacement of the handle assembly.
- 11.** The toddler riding toy according to any one of the preceding claims, wherein the
5 handle assembly is angularly manipulable about a pivot axis extending along at least a portion of the bridging portion, between the rear portion thereof and the front portion thereof.
- 12.** The toddler riding toy according to claim 11, wherein the pivot axis extends substantially parallel to the ground rolling plane, along a sliding path extending parallel
10 to a longitudinal axis of the riding toy.
- 13.** The toddler riding toy according to any one of claims 8 through 12, wherein the handle assembly is independent of the seat.
- 14.** The toddler riding toy according to any one of claims 8 through 12, wherein the seat is integral with the bridging portion of the frame member.
- 15.** The toddler riding toy according to any one of the preceding claims, wherein the
15 frame member is formed as a unitary member.
- 16.** The toddler riding toy according to any one of the preceding claims, wherein the frame member has an arcuate shape, with an apex thereof extending at the bridging portion.
- 17.** The toddler riding toy according to any one of the preceding claims, wherein in
20 both the walk-behind and ride-on positions, the gripping portion of the handle assembly extends above the seat.
- 18.** The toddler riding toy according to any one of the preceding claims, wherein each of said wheels is characterized by an axis of rotation being parallel to the ground
25 rolling plane.
- 19.** The toddler riding toy according to any one of the preceding claims, wherein at least a front wheel, being articulated at a bottom end of the at least front leg, is a caster wheel.
- 20.** The toddler riding toy according to any one of the preceding claims, wherein the
30 handle assembly is configured for being arrested at two or more distinct angular manipulation locations, corresponding with at least the walk-behind position and the ride-on position.

- 18 -

21. The toddler riding toy according to claim 20, further comprising a locking mechanism configured for arresting the handle assembly at one of the walk-behind and ride-on positions.

22. The toddler riding toy according to any one of the preceding claims, wherein the
5 seat is detachably attachable to the bridging portion of the frame member.

23. The toddler riding toy according to any one of the preceding claims, wherein the handle assembly comprises a rear gripping portion to be used in the walk-behind position and a front gripping portion to be used in the ride-on position.

24. The toddler riding toy according to any one of the preceding claims, wherein in
10 the ride-on position the gripping portion of the handle assembly extends between a center of the seat and a bottom end of the at least one front leg, and in the walk-behind position the gripping portion of the handle assembly extends between a center of the seat and a bottom end of the rear legs.

25. The toddler riding toy according to any one of the preceding claims, wherein in
15 the ride-on position the gripping portion of the handle assembly extends between a center of the bridging portion and a bottom end of the at least front leg, and in the walk-behind position the gripping portion of the handle assembly extends between a center of the bridging portion and a bottom end of the rear legs.

26. The toddler riding toy according to any one of the preceding claims, wherein the
20 frame member comprises two rear legs and one front leg, said riding toy being a tricycle.

27. The toddler riding toy according to claim 26, wherein at a planar projection, the frame being substantially Y-shaped.

28. The toddler riding toy according to any one of the preceding claims, wherein the
25 frame member comprises two rear legs and two front legs.

29. The toddler riding toy according to claim 28, wherein at a planar projection, the frame being substantially X-shaped.

30. The toddler riding toy according to any one of claims 28 and 29, wherein said two front legs give rise to an auxiliary walking space therebetween, facilitating use of
30 the toddler riding toy in said walk-behind position in two opposite directions.

31. The toddler riding toy according to any one of the preceding claims, wherein said gripping portion is configured to extend substantially parallel to the ground rolling plane.

- 19 -

32. The toddler riding toy according to any one of the preceding claims, further comprising at least one accessory unit.

33. The toddler riding toy according to claim 32, wherein said accessory unit is selected from a group including a storage container, an activity accessory, and an
5 amusement accessory.

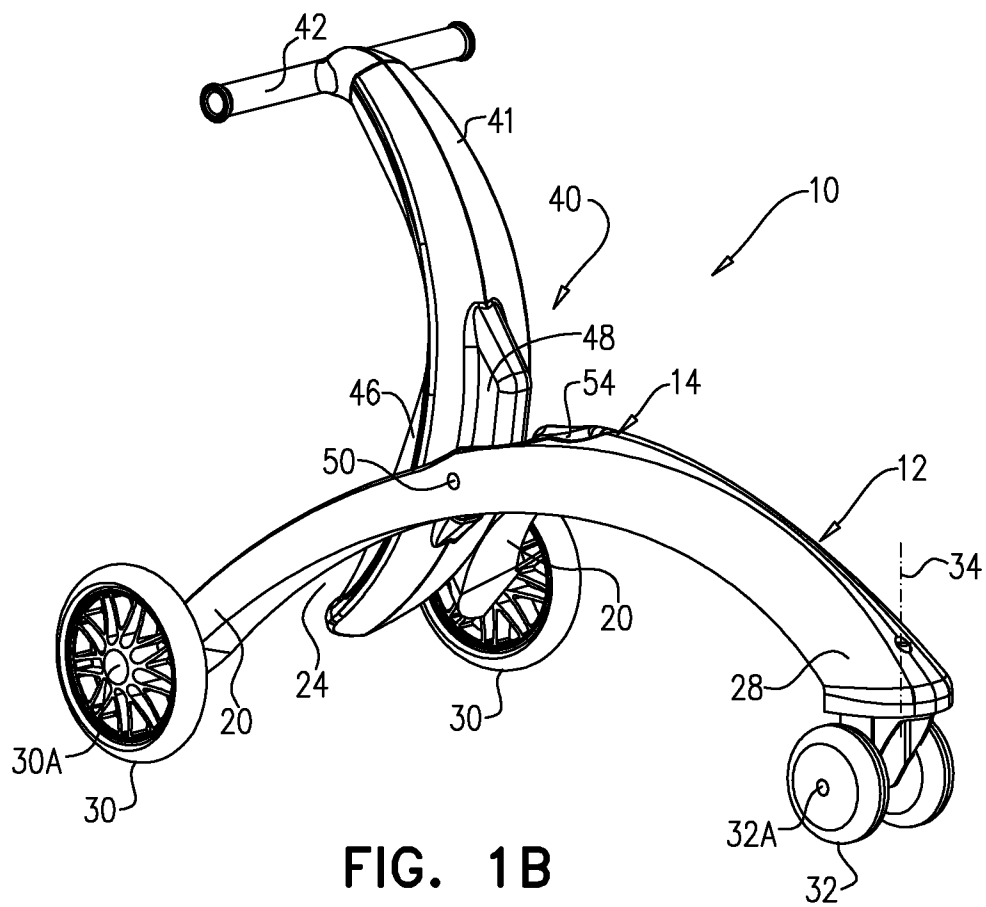
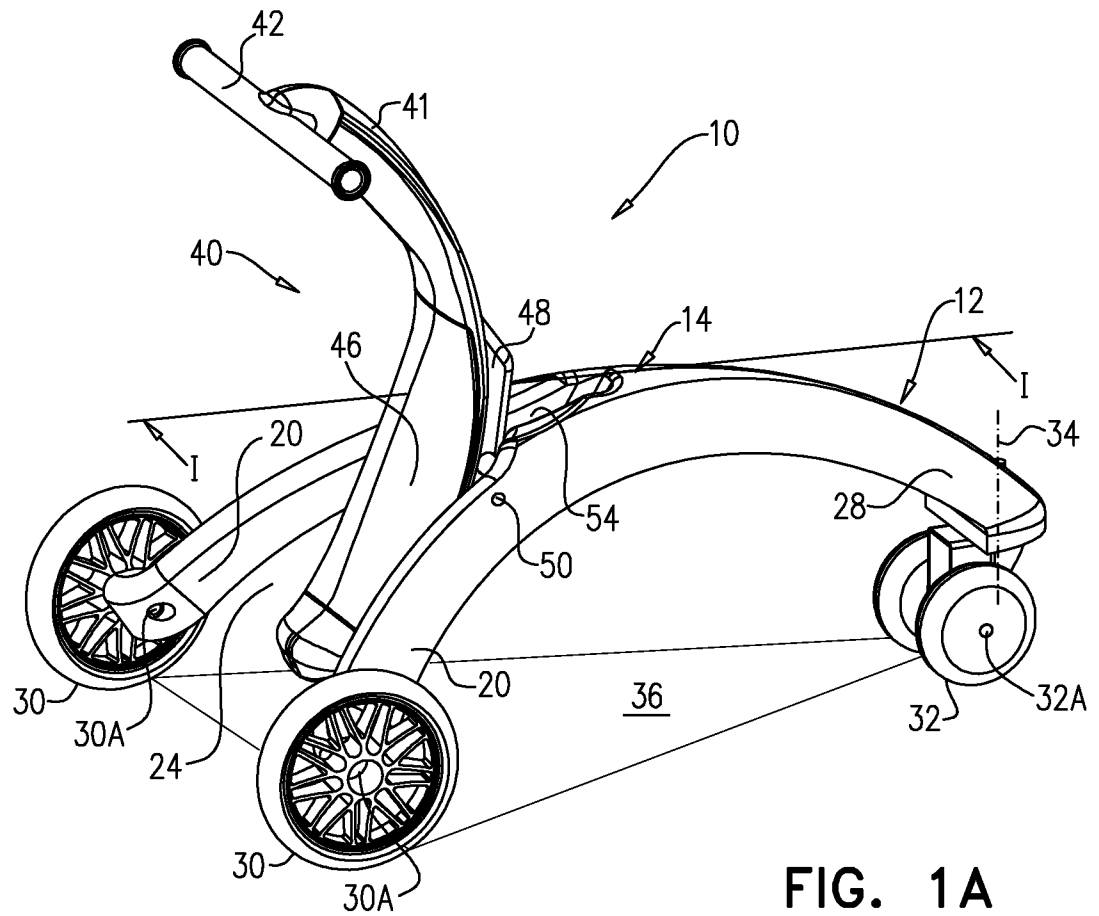
34. The toddler riding toy according to any one of claims 32 and 33, wherein the accessory unit is detachably attachable to the frame member or the handle assembly.

35. The toddler riding toy according to any one of the preceding claims, wherein the wheel at the bottom end of the at least one front leg is selected from a group including a
10 fixed wheel, a free swivel wheel, and a lockable swivel wheel.

36. The toddler riding toy according to any one of the preceding claims, further comprising a push rod articulated to a rear portion thereof, facilitating manipulating the toddler riding toy by an adult walking therebehind.

37. The toddler riding toy according to any one of the preceding claims, further
15 comprising a foot rest articulated to the frame at a front portion thereof.

38. The toddler riding toy according to any one of the preceding claims, wherein one or more of said wheels comprises a speed control mechanism configured for reducing the rotational speed of and/or arresting its respective wheel.



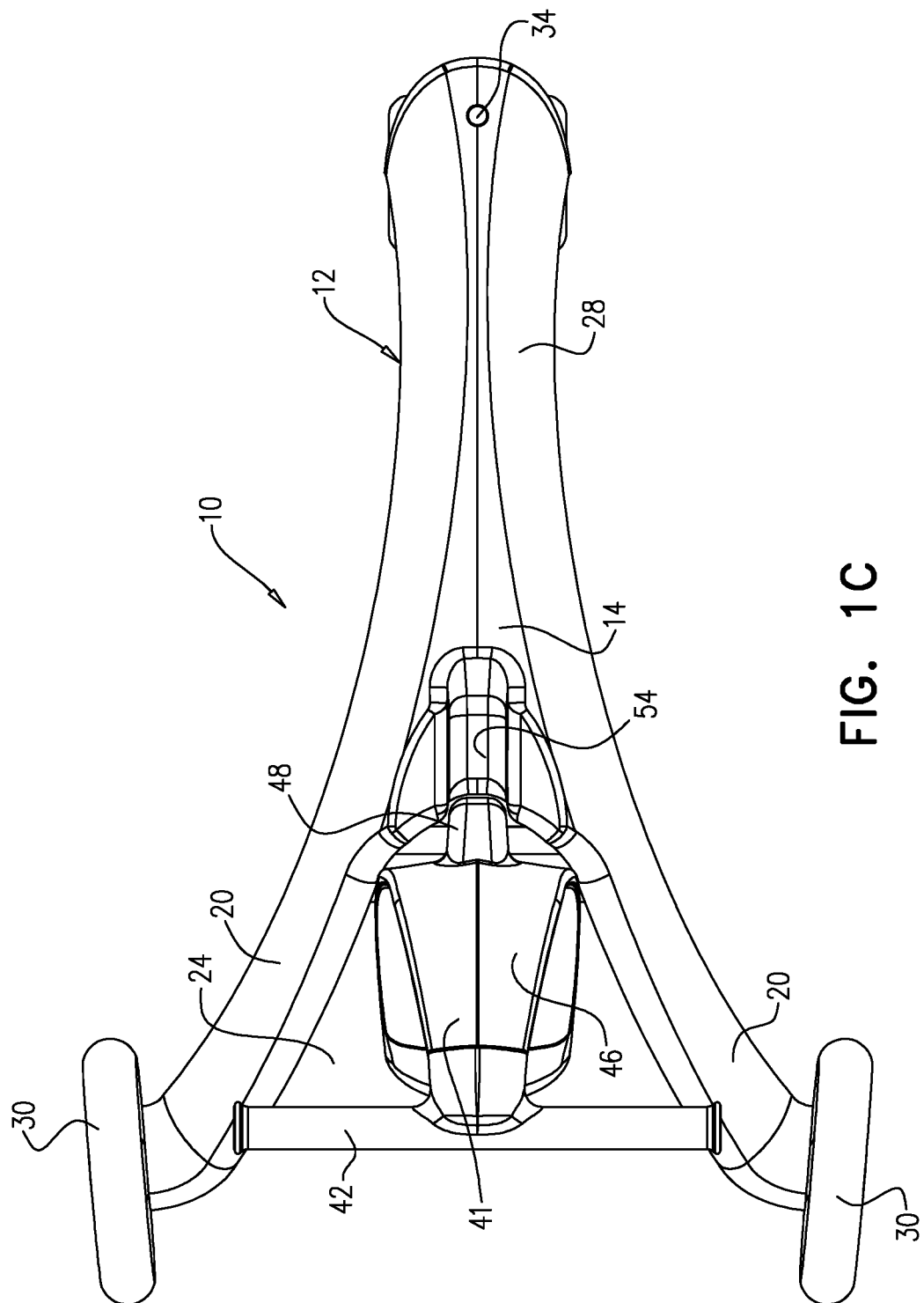


FIG. 1C

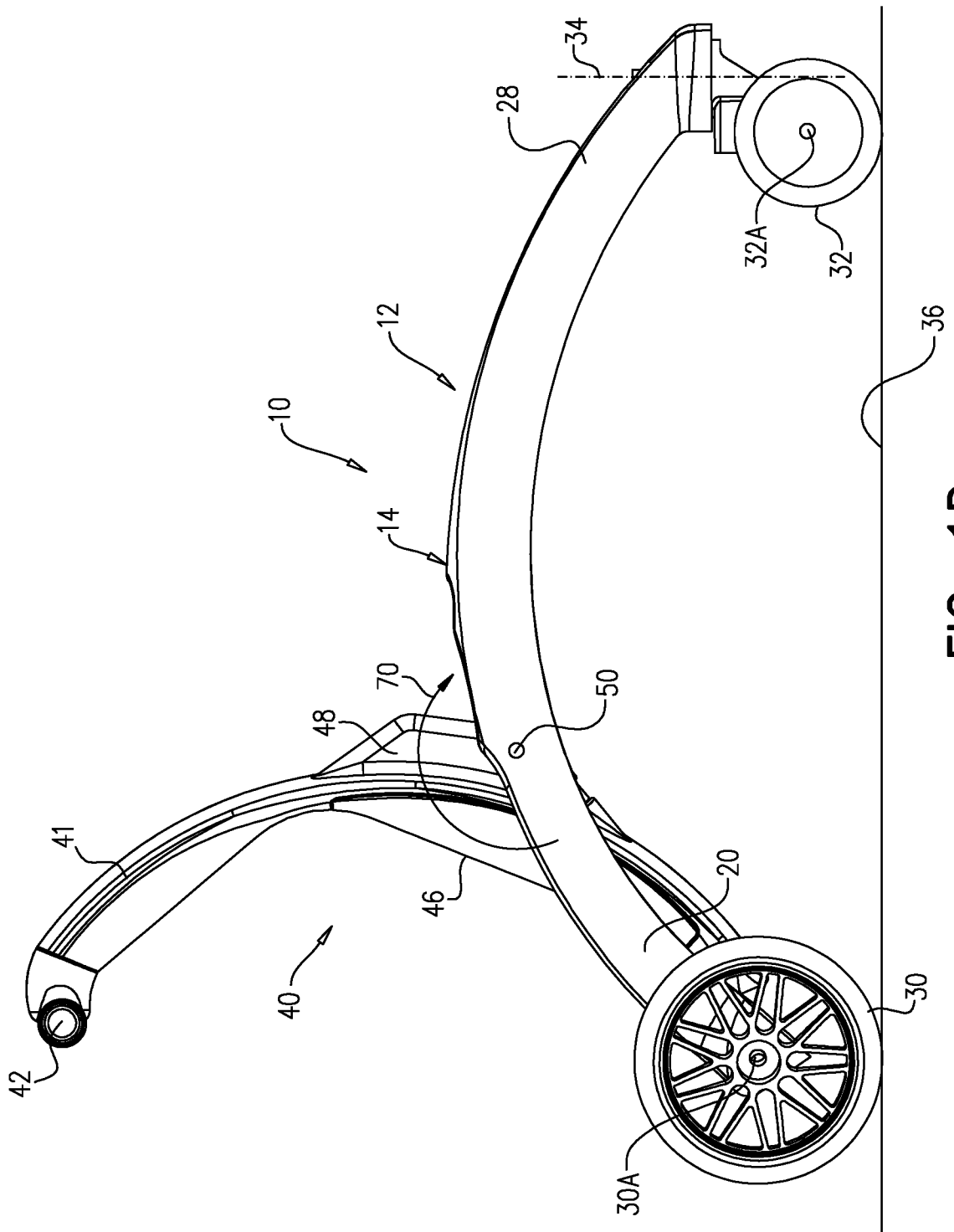


FIG. 1D

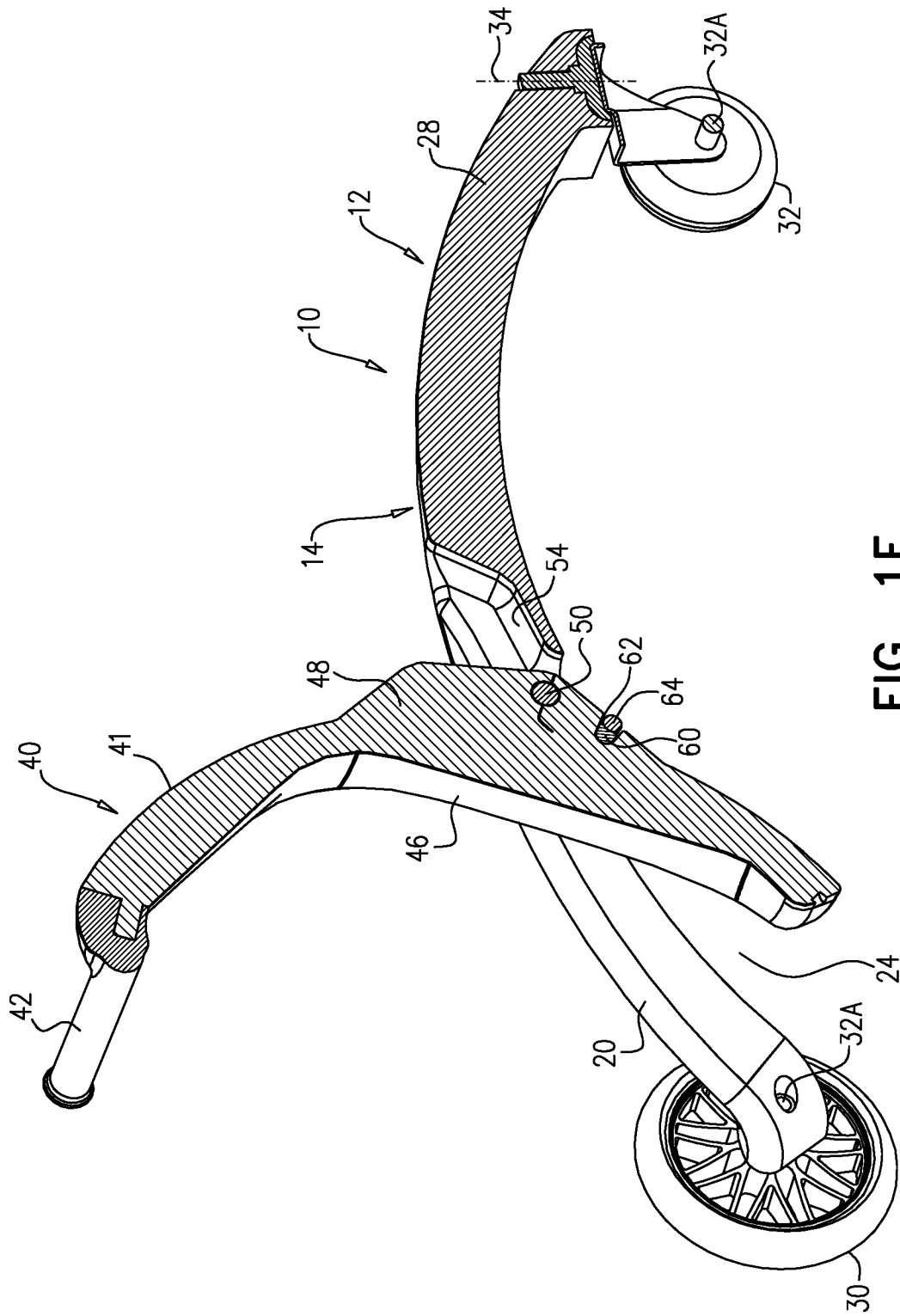


FIG. 1E

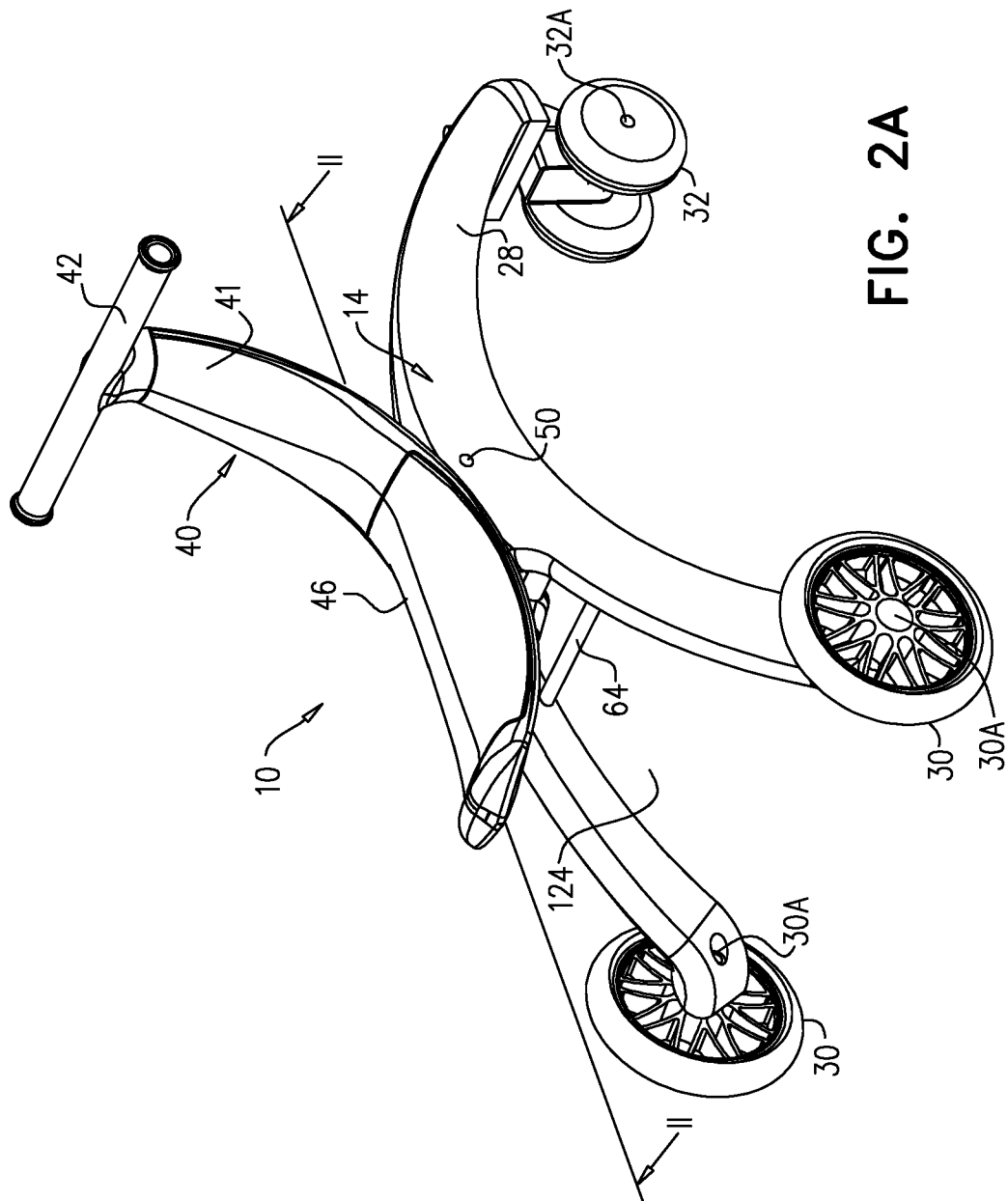


FIG. 2A

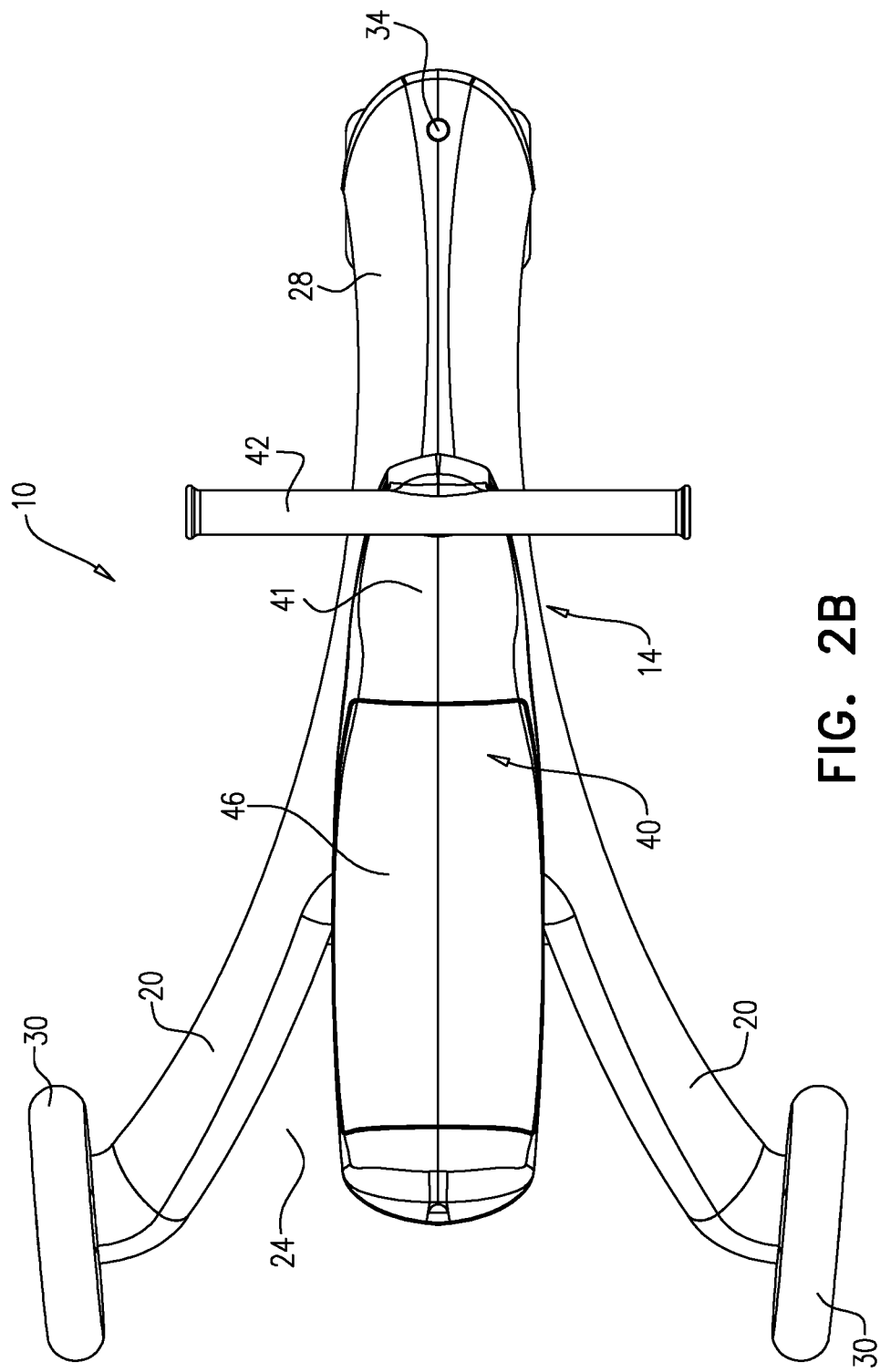


FIG. 2B

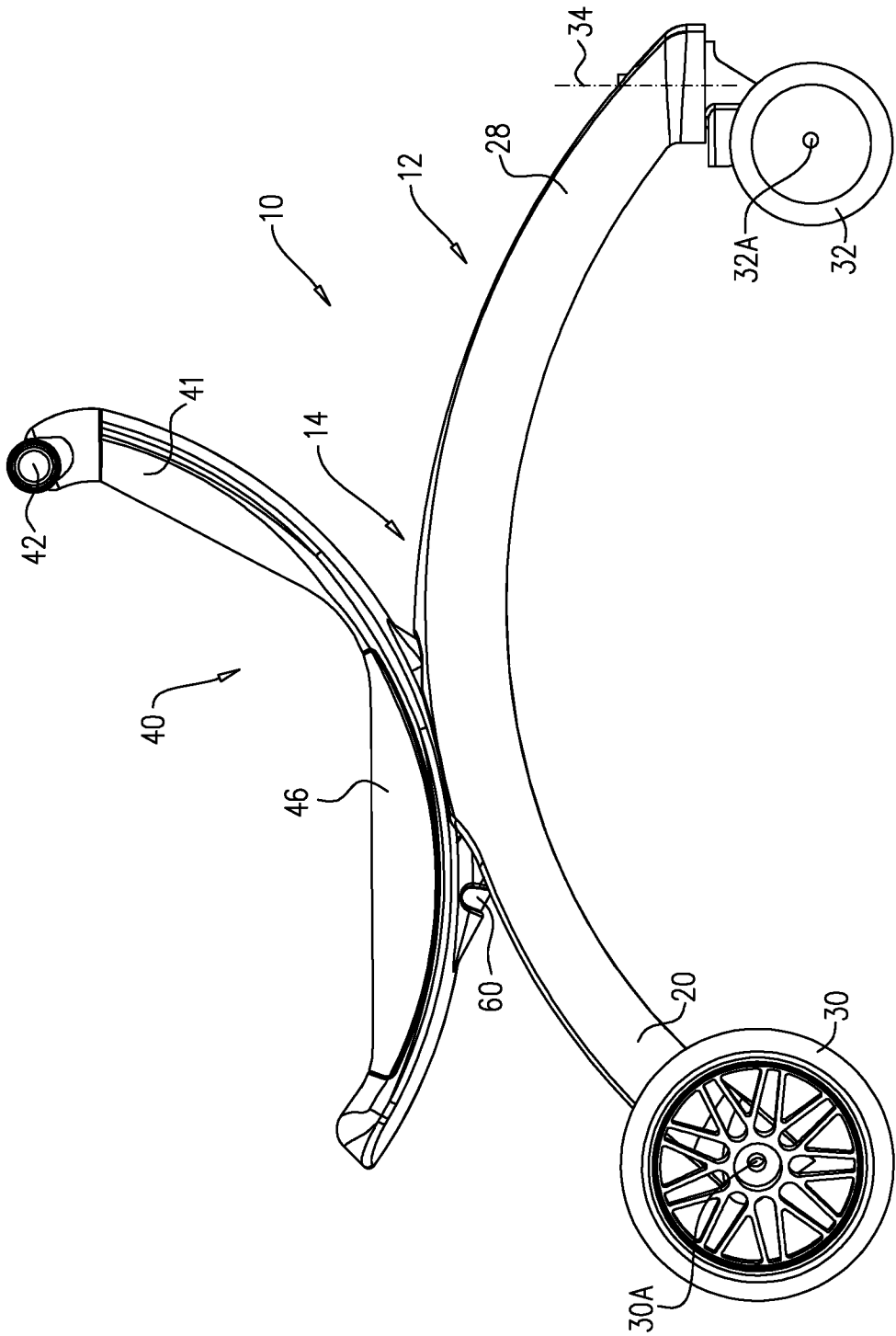


FIG. 2C

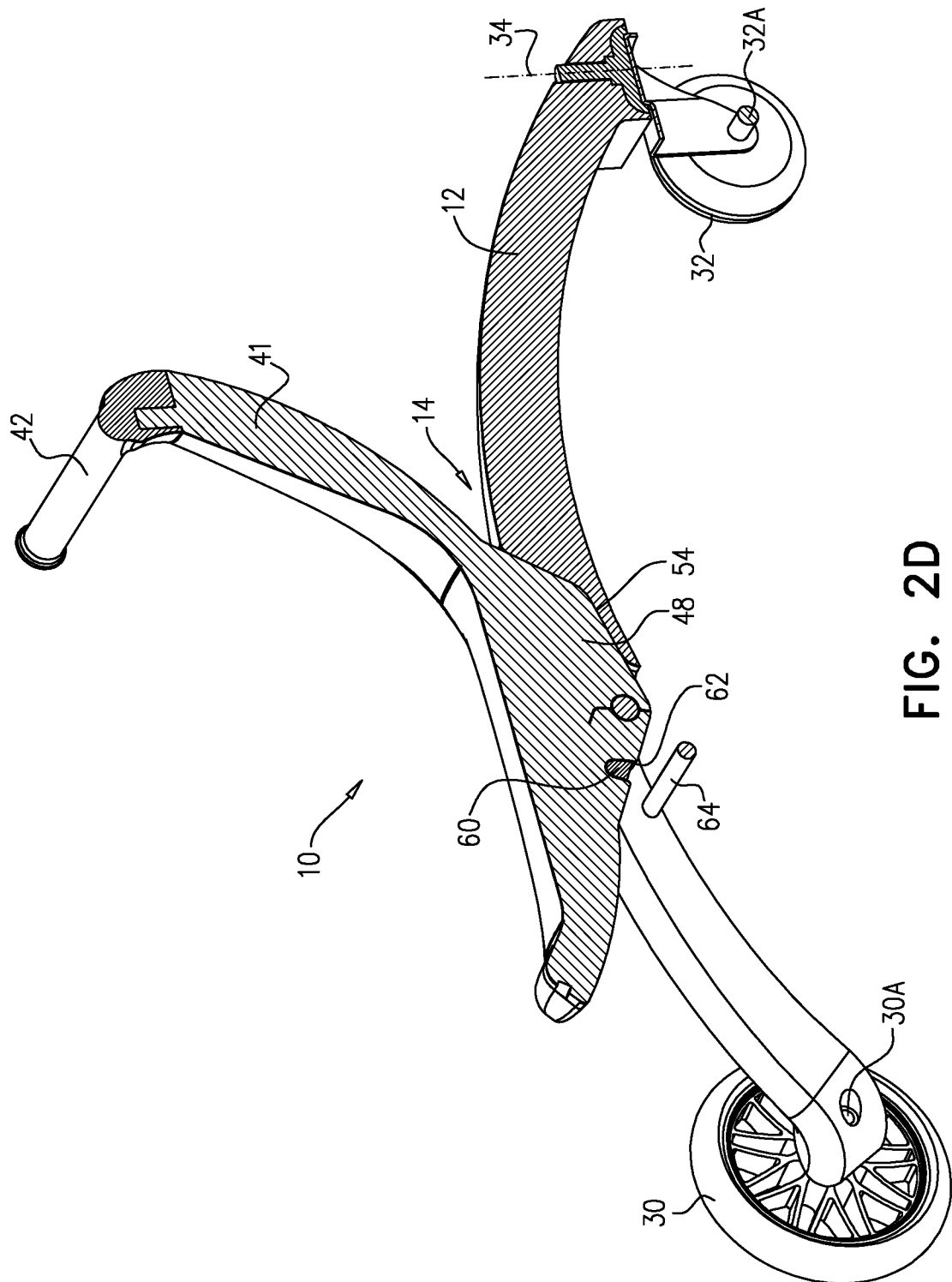


FIG. 2D

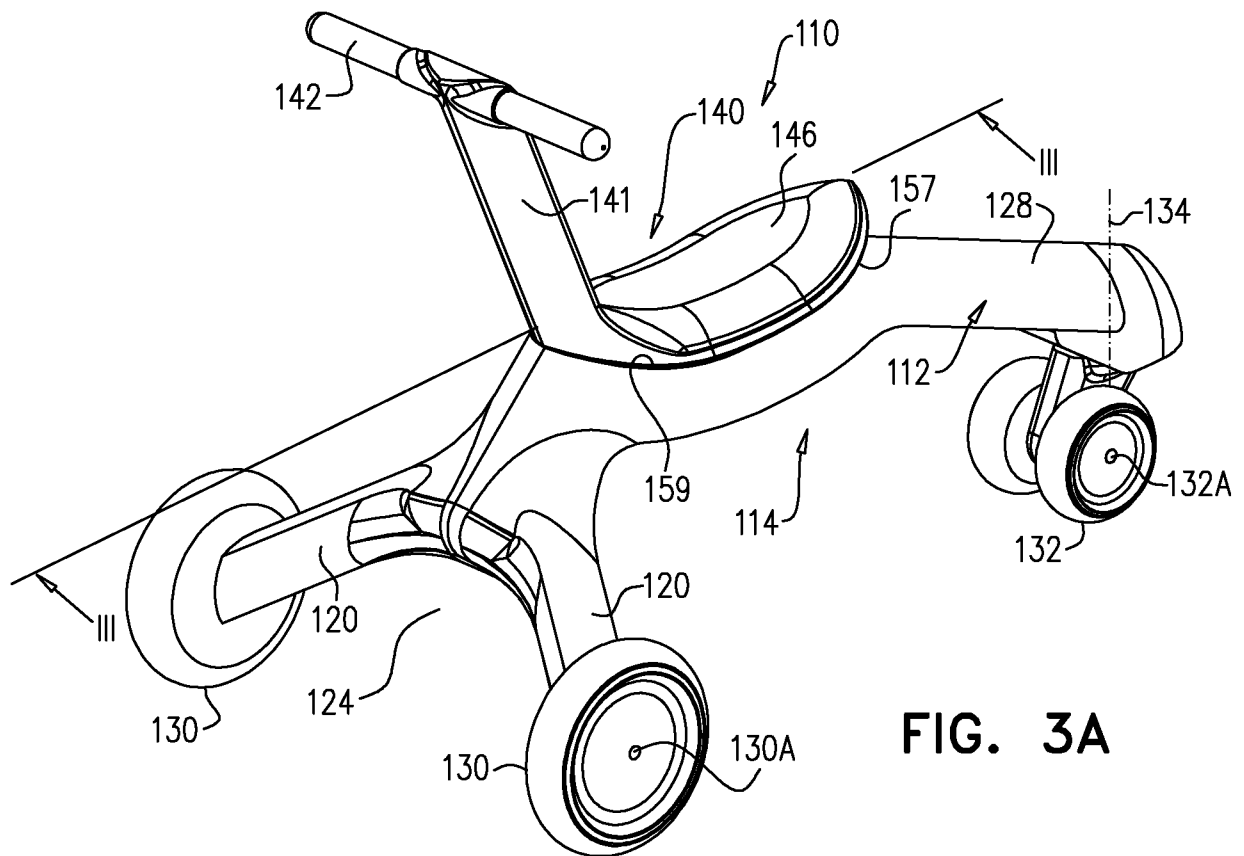


FIG. 3A

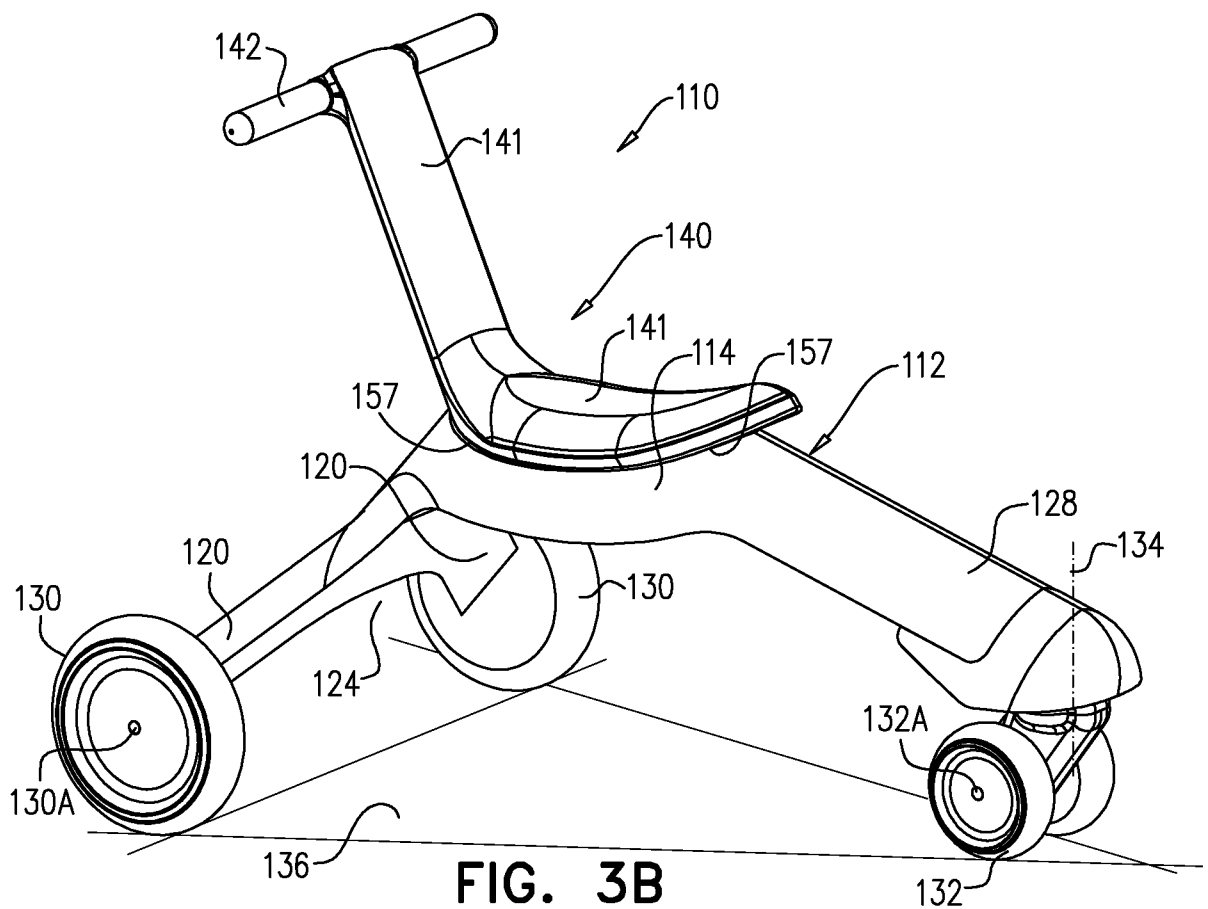
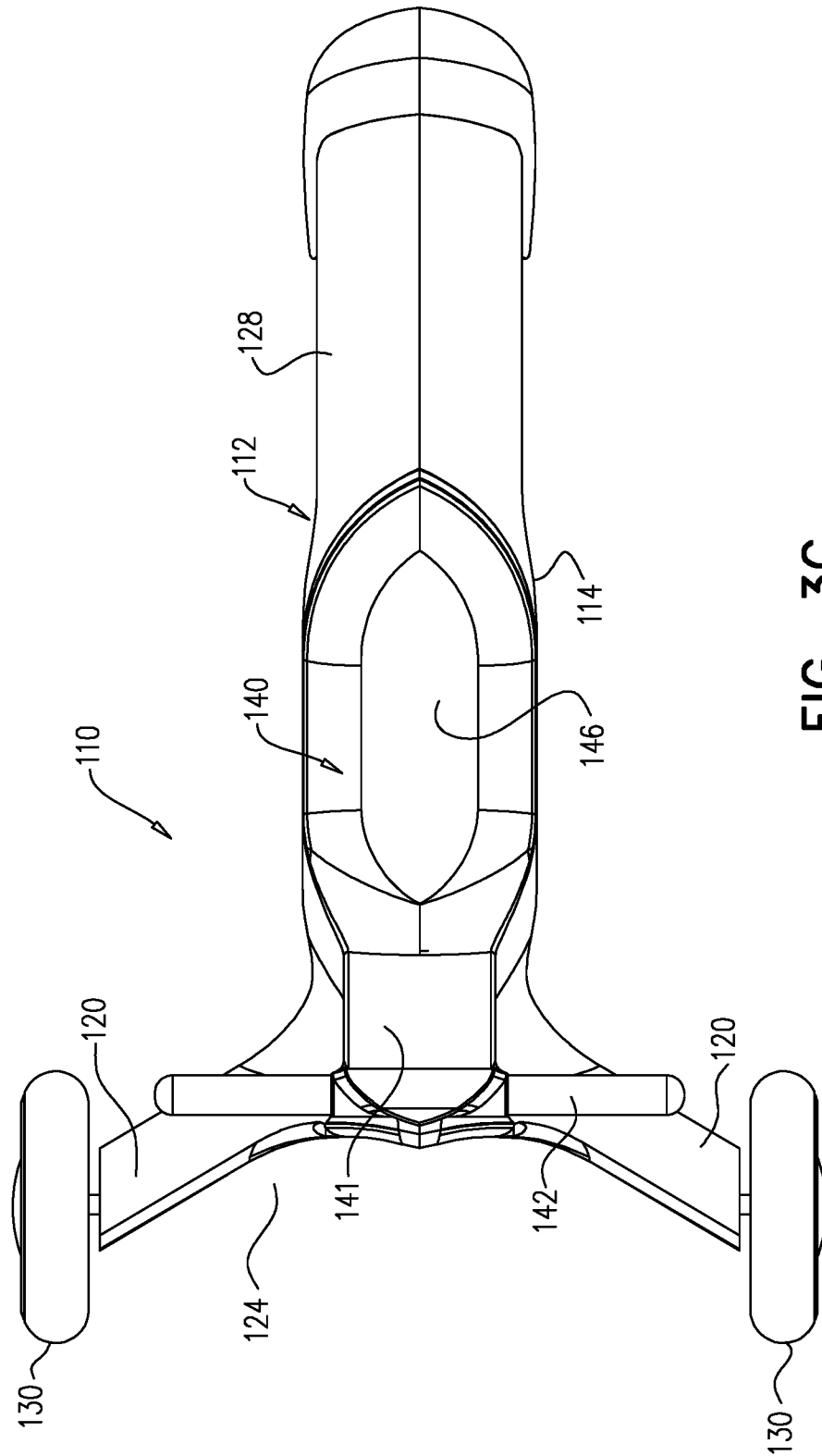


FIG. 3B



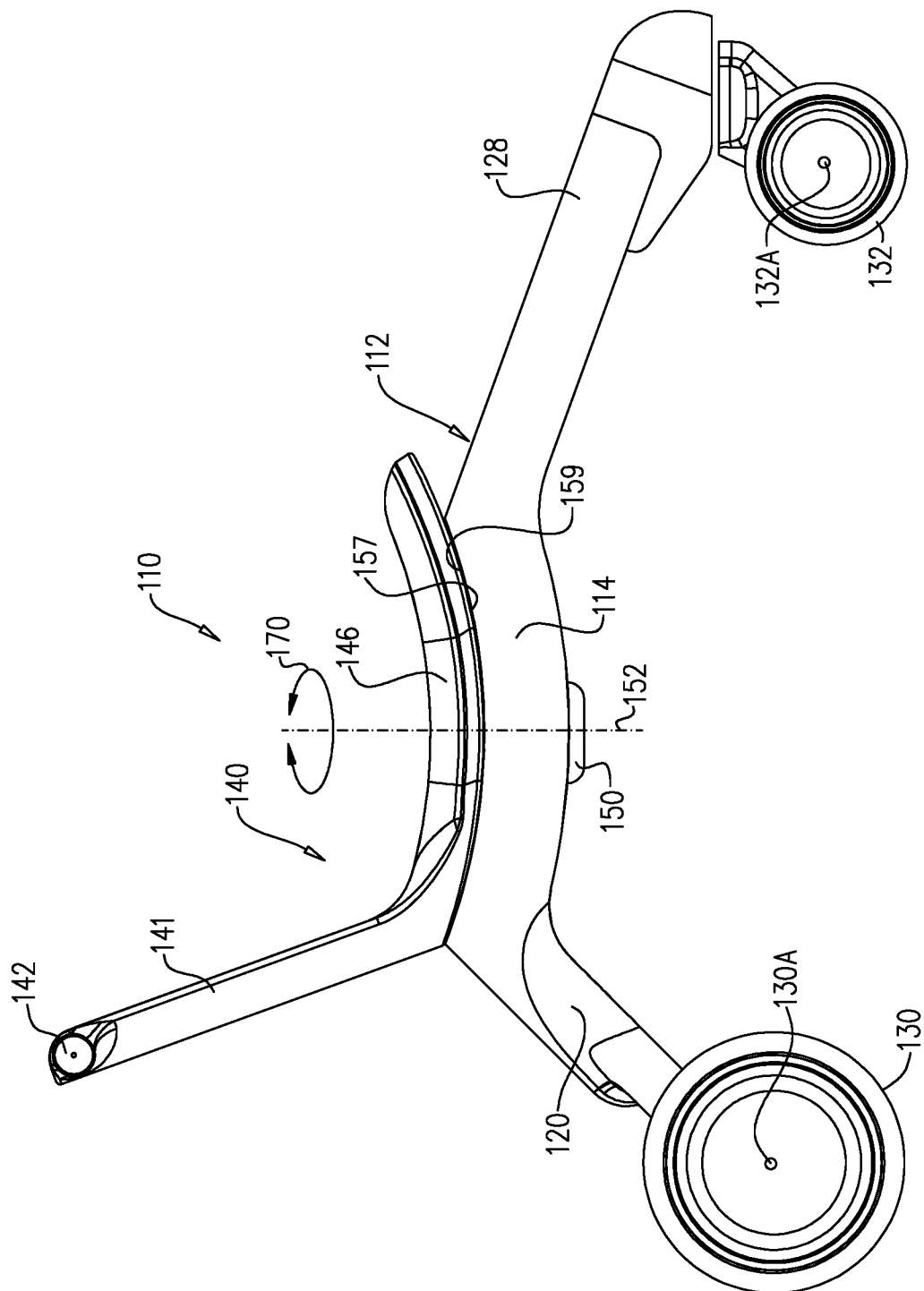


FIG. 3D

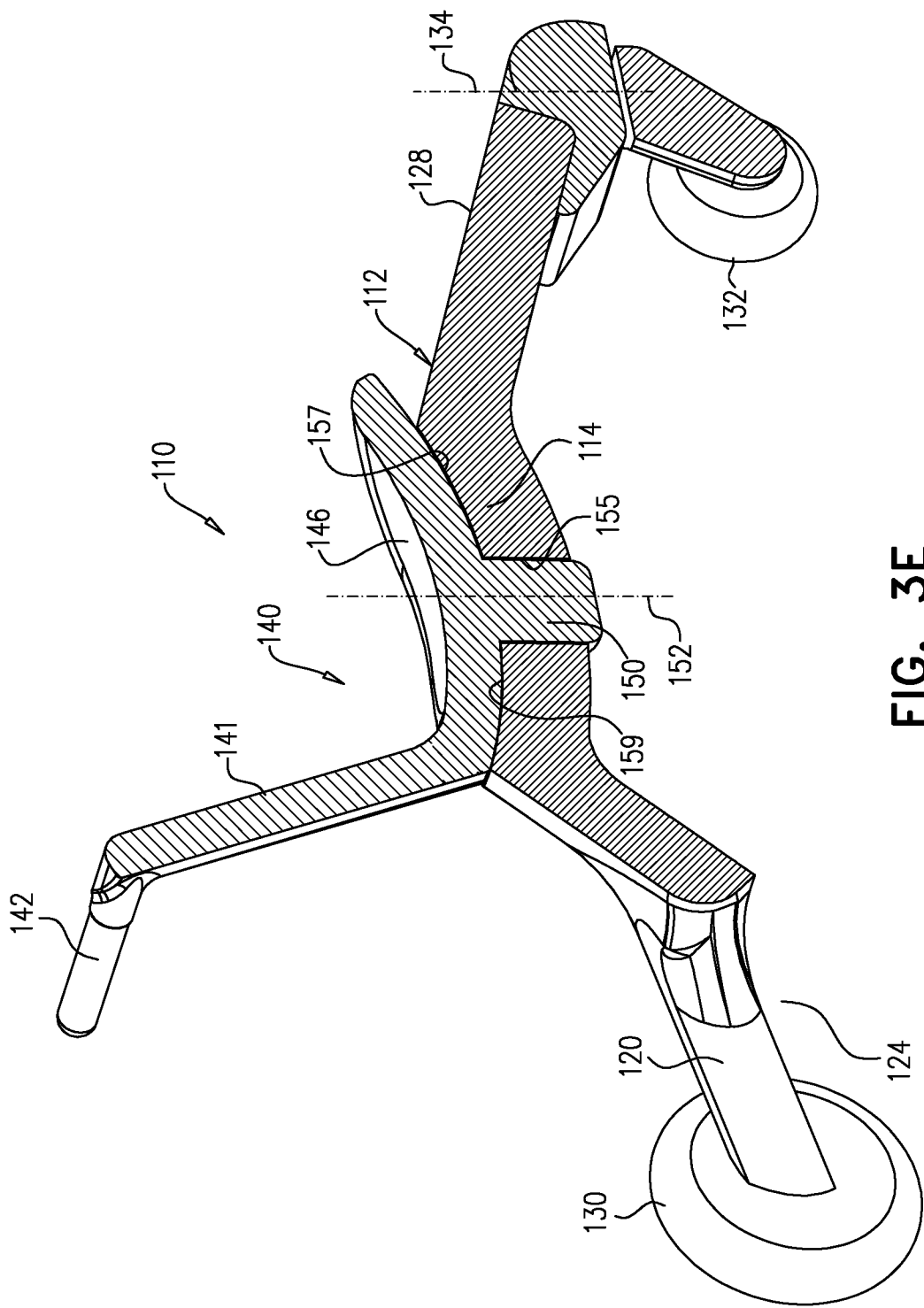


FIG. 3E

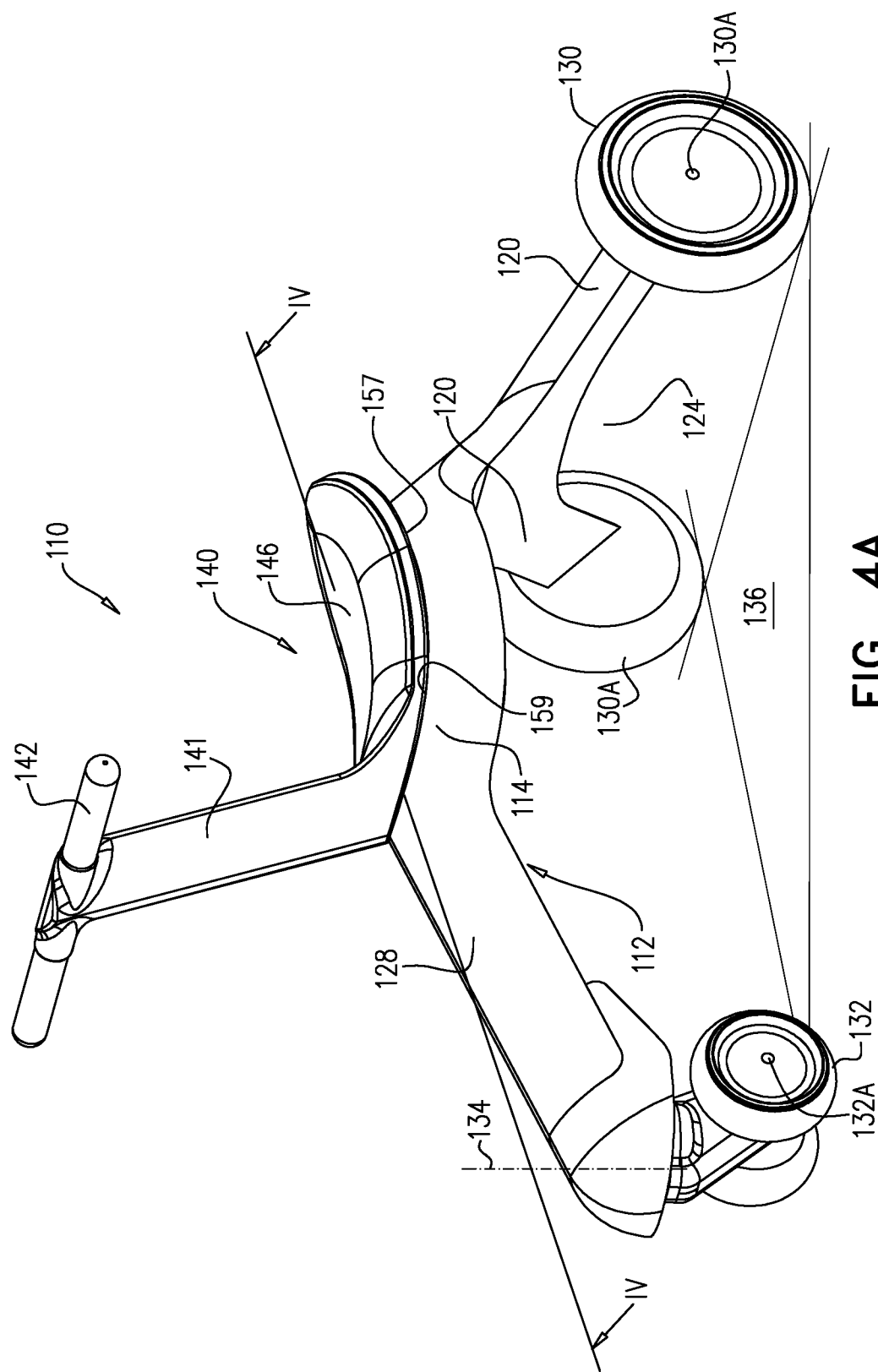


FIG. 4A

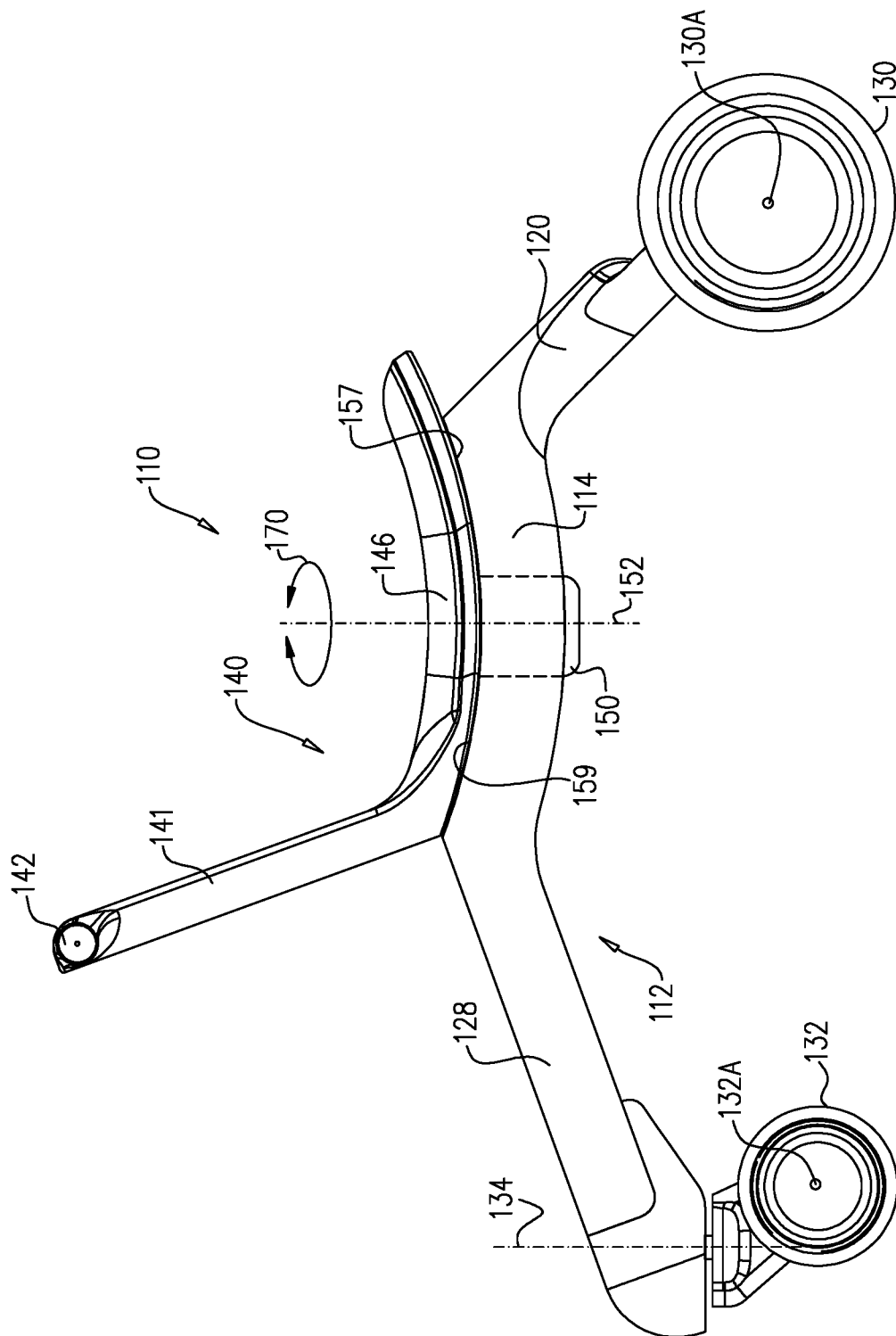


FIG. 4B

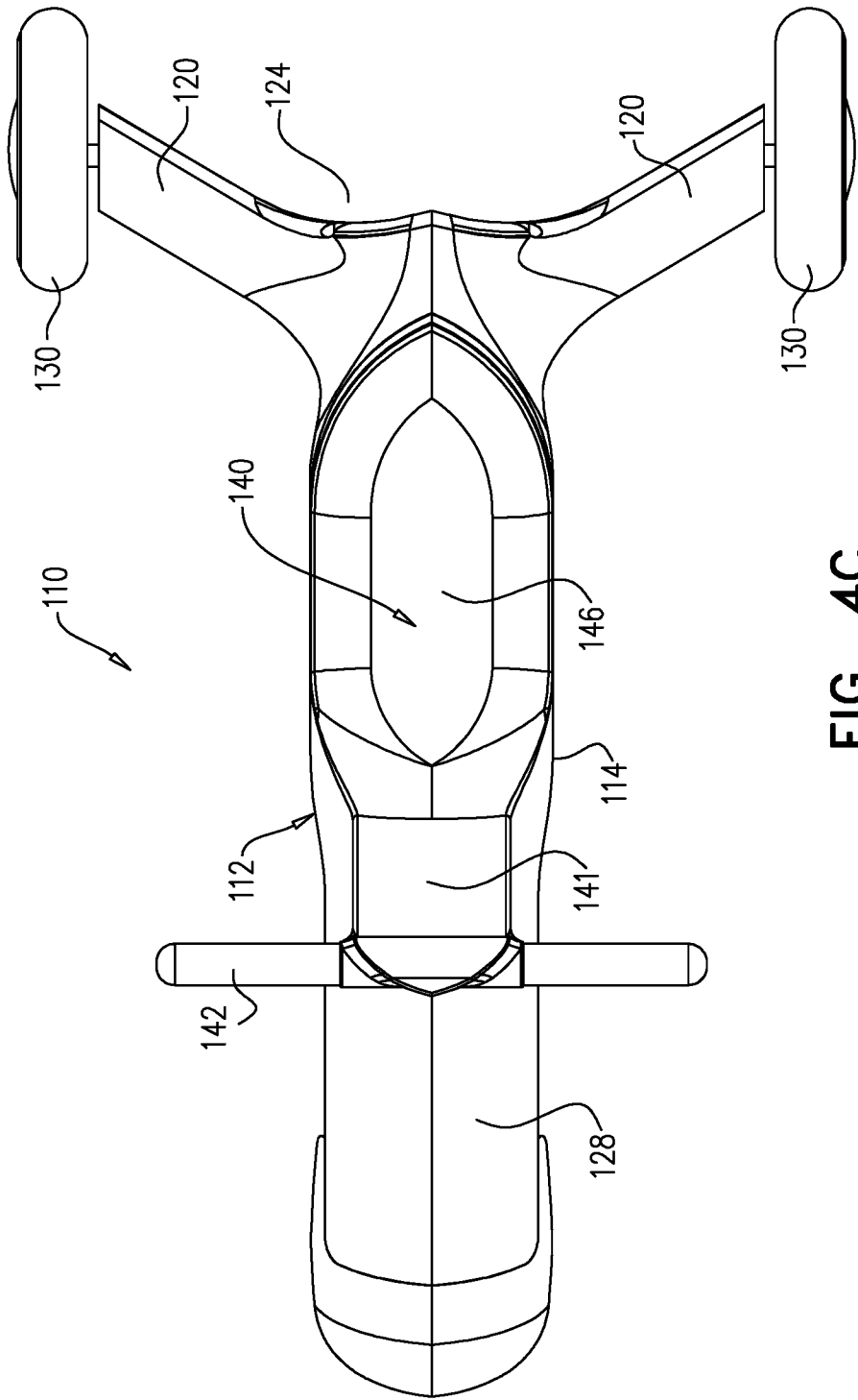


FIG. 4C

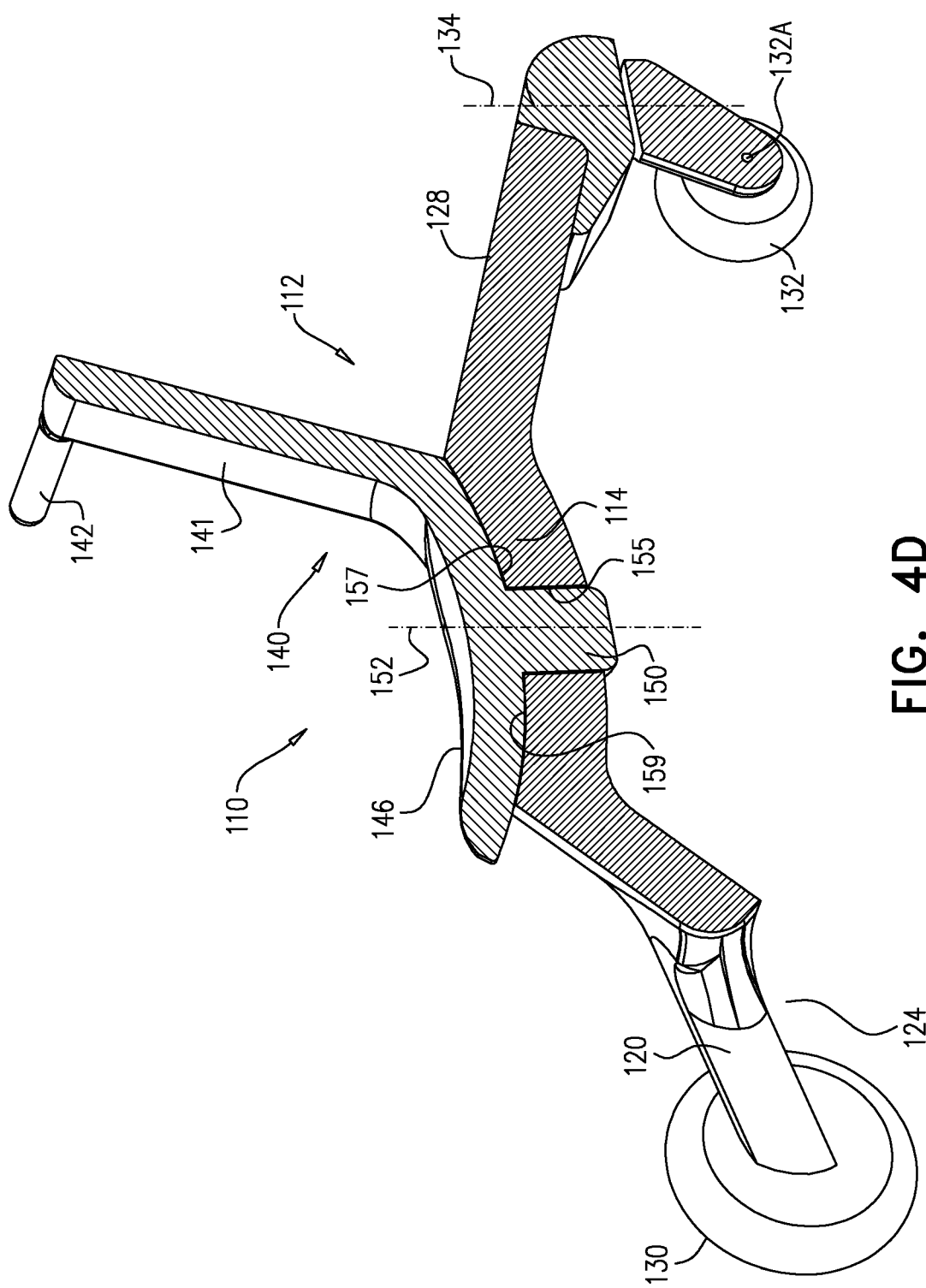


FIG. 4D

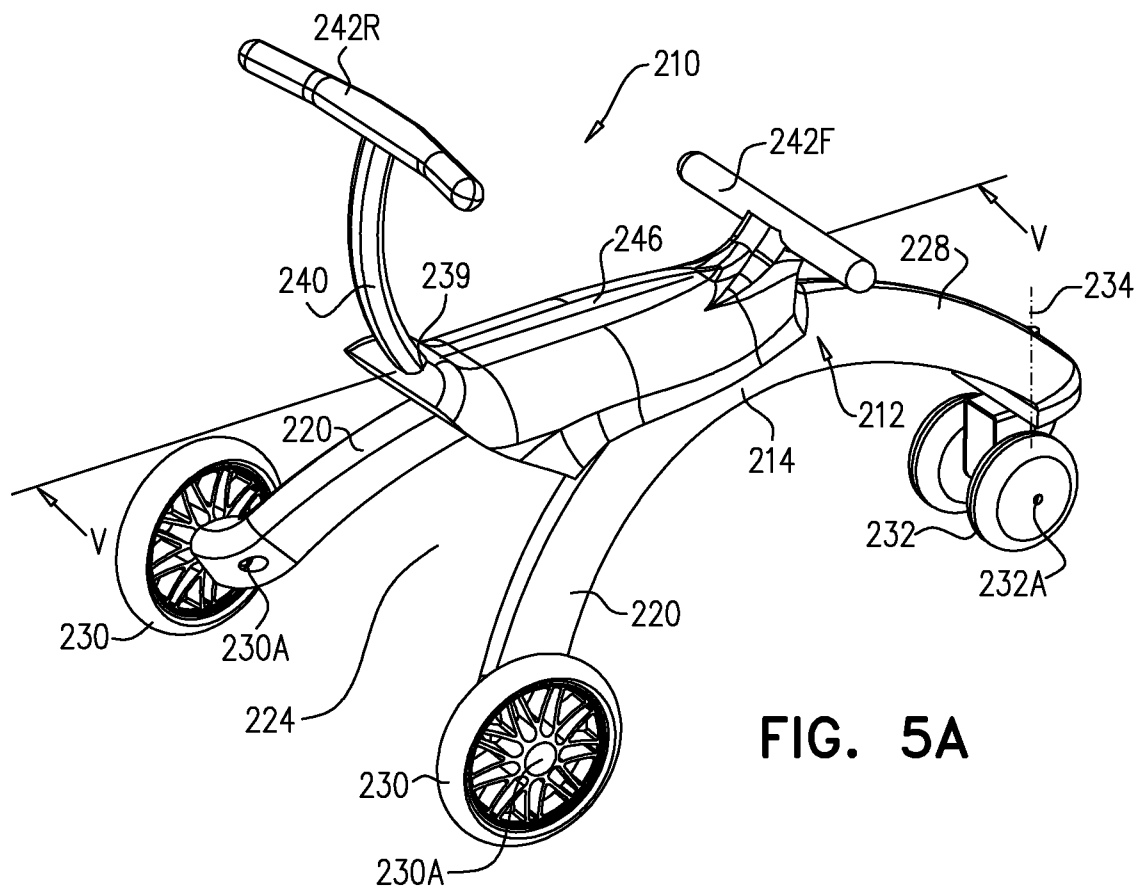


FIG. 5A

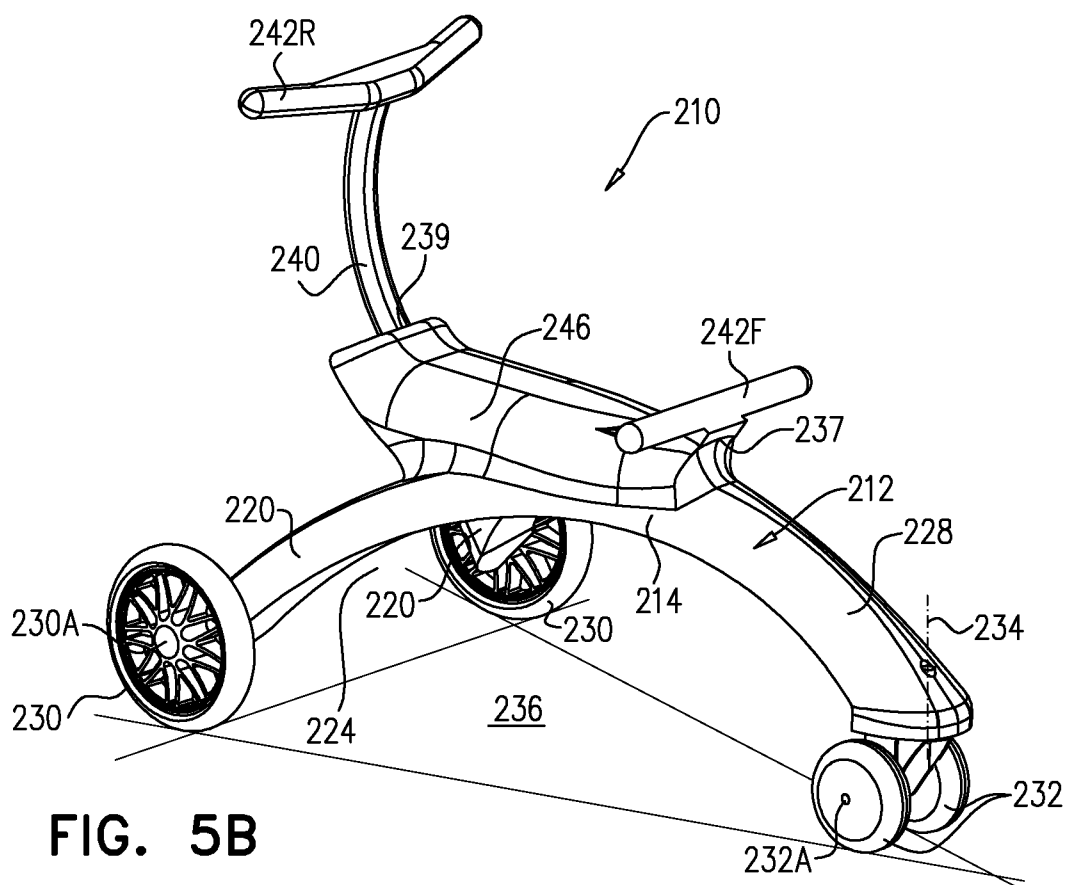
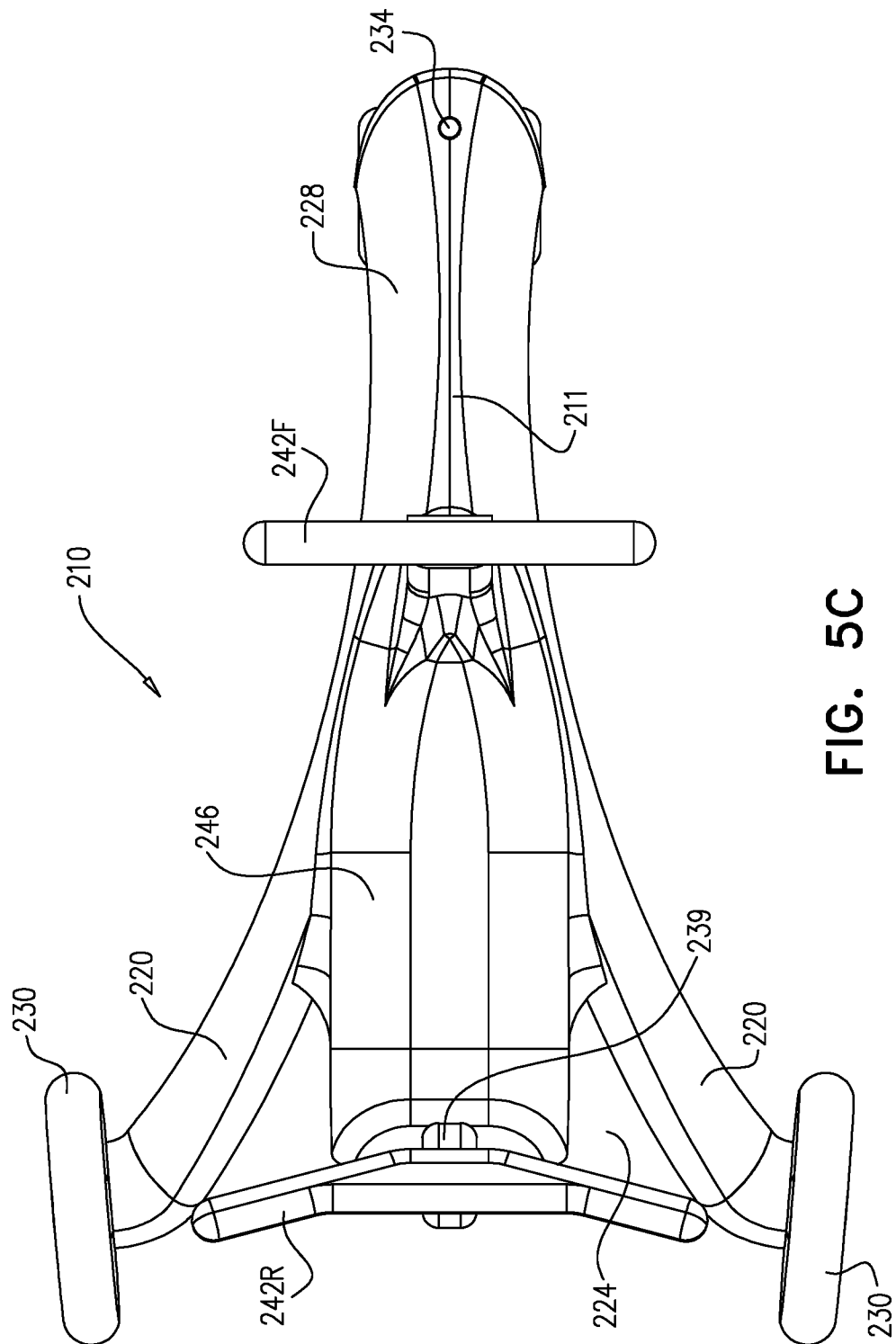


FIG. 5B



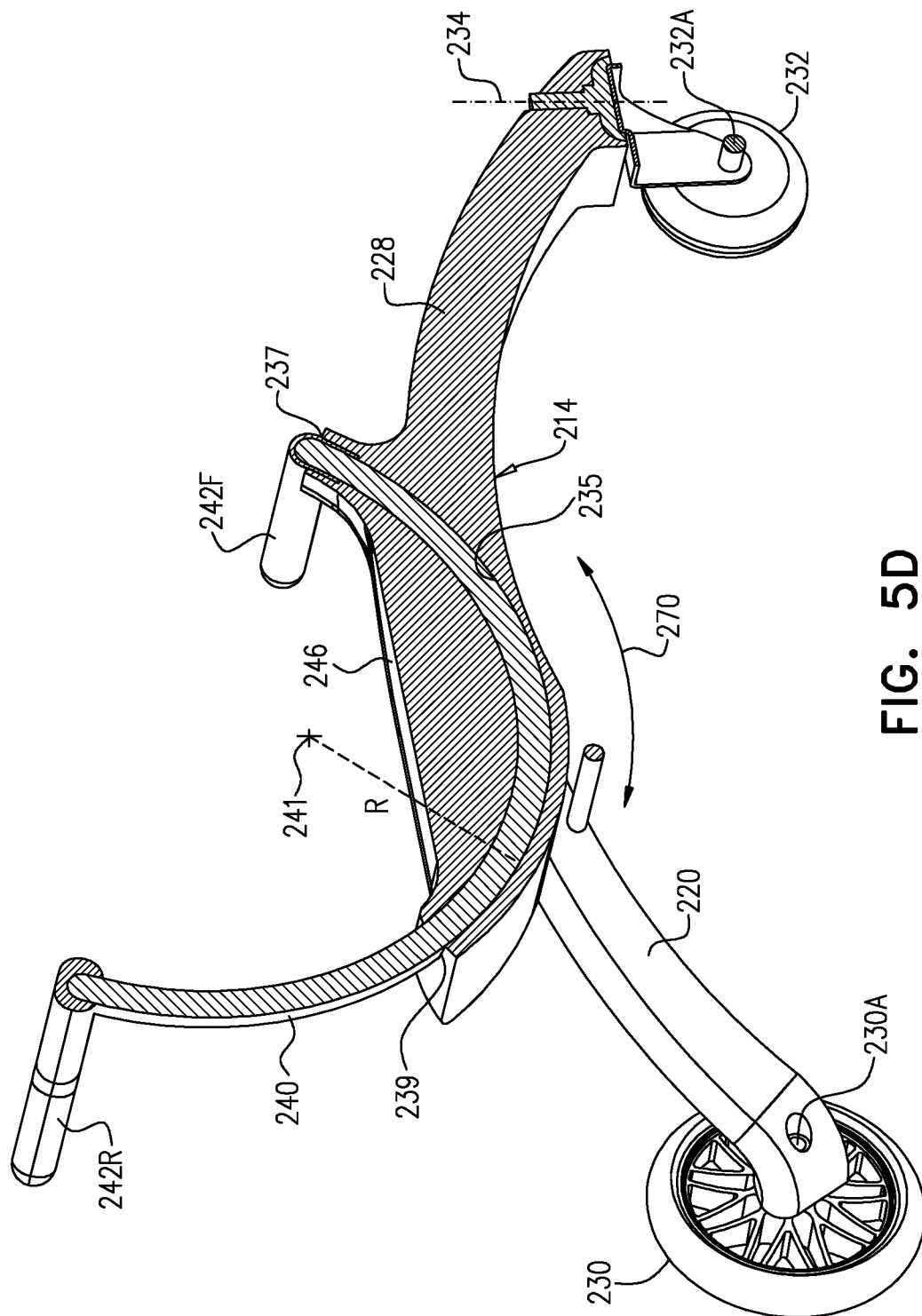


FIG. 5D

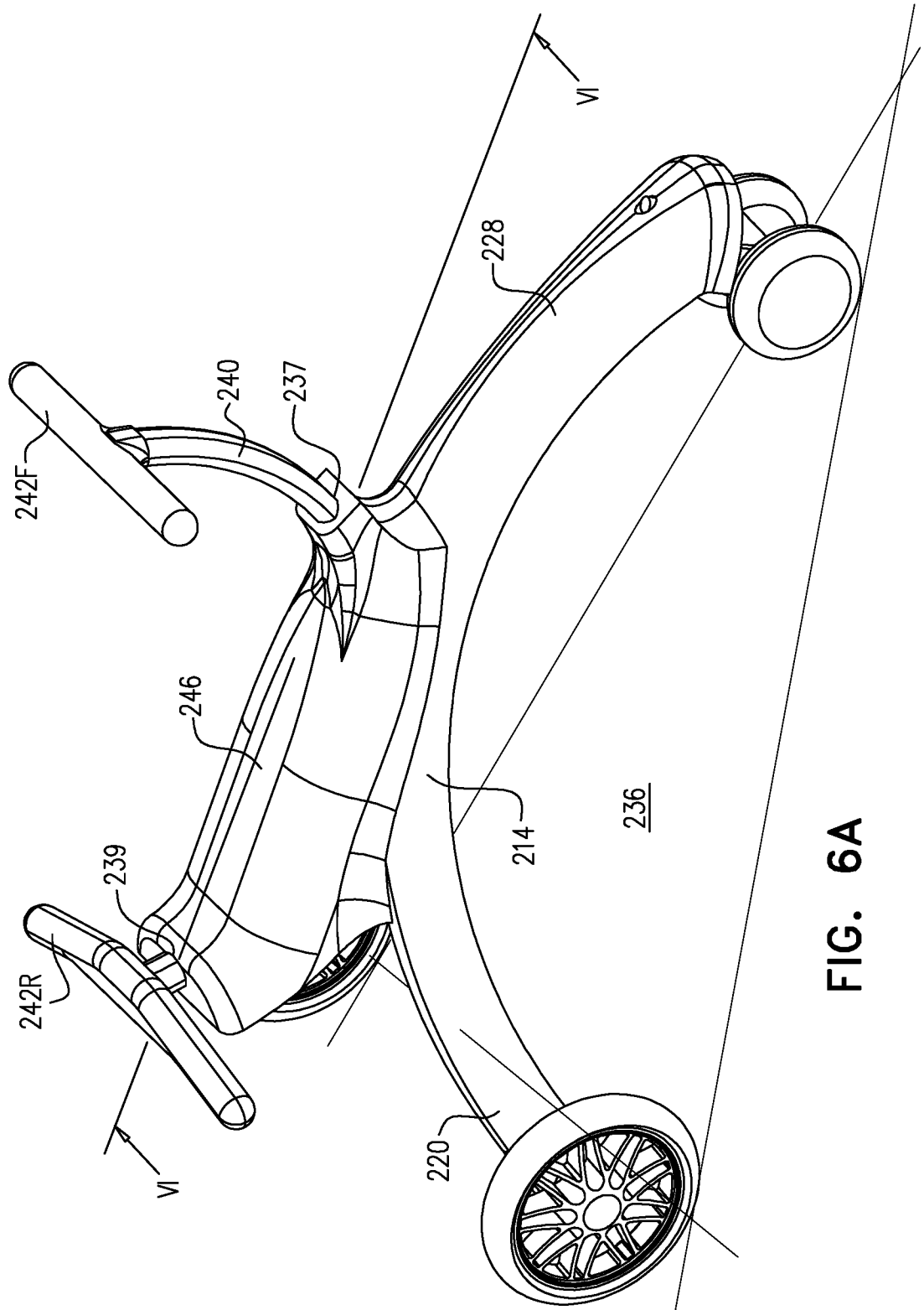


FIG. 6A

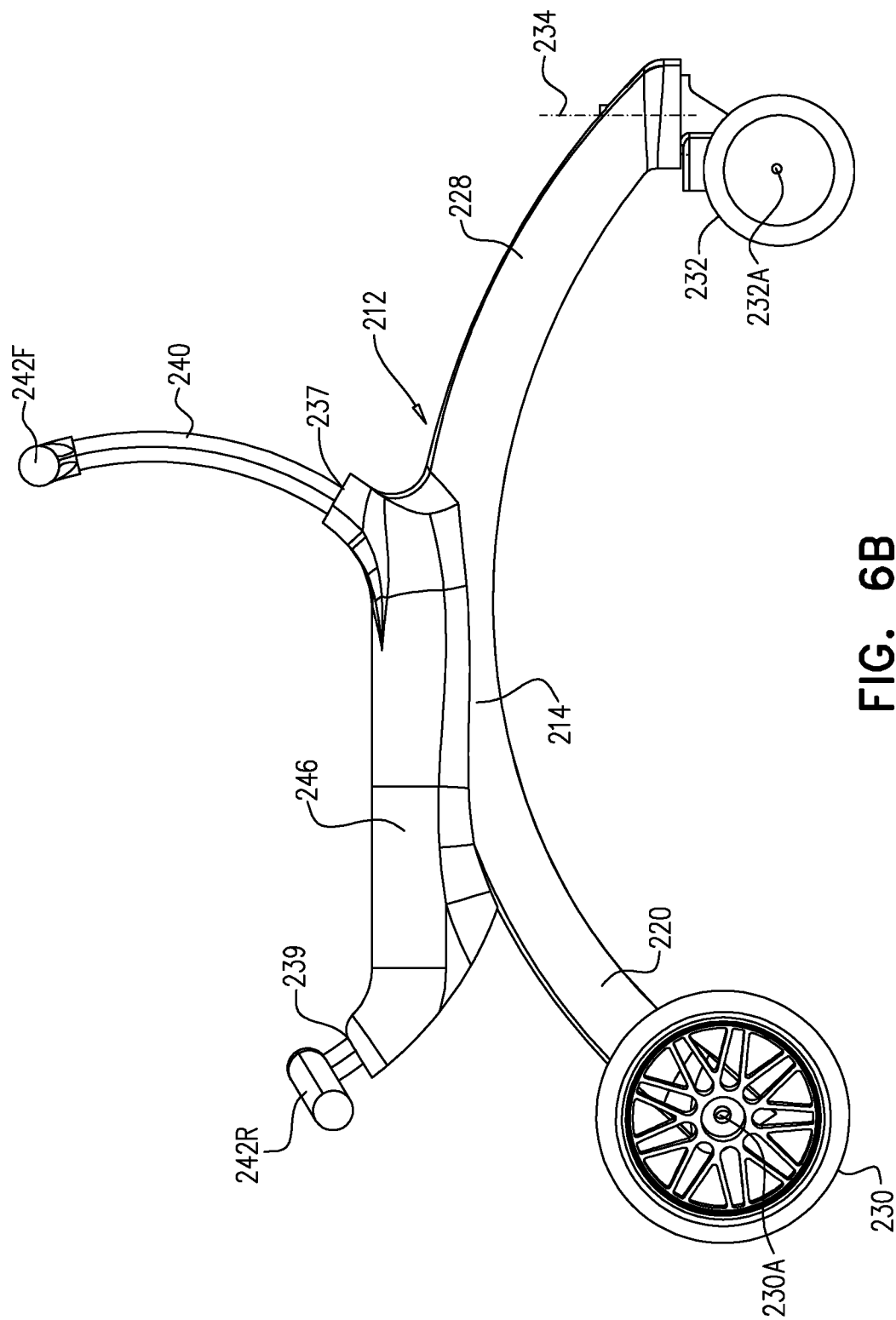


FIG. 6B

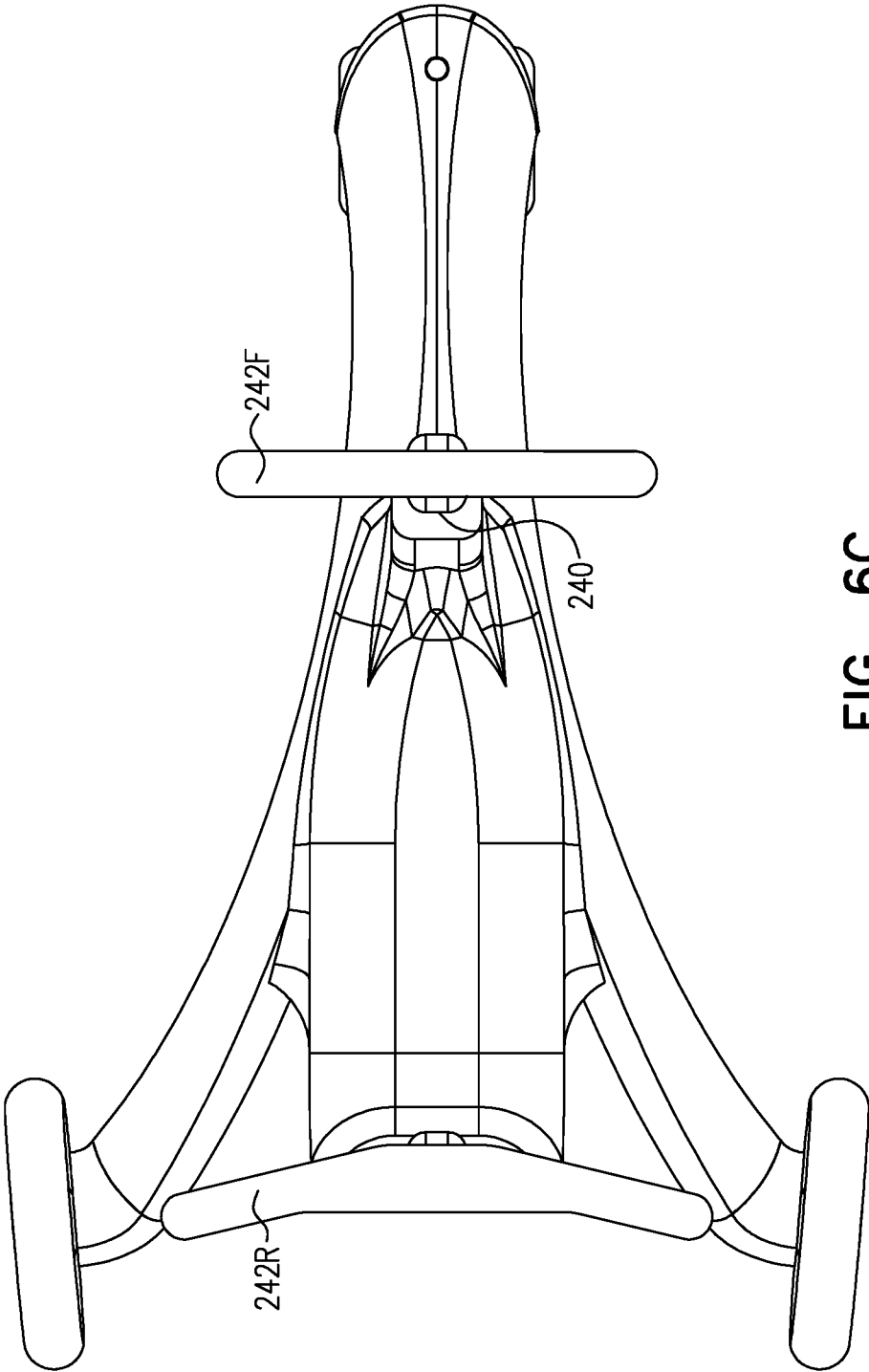


FIG. 6C

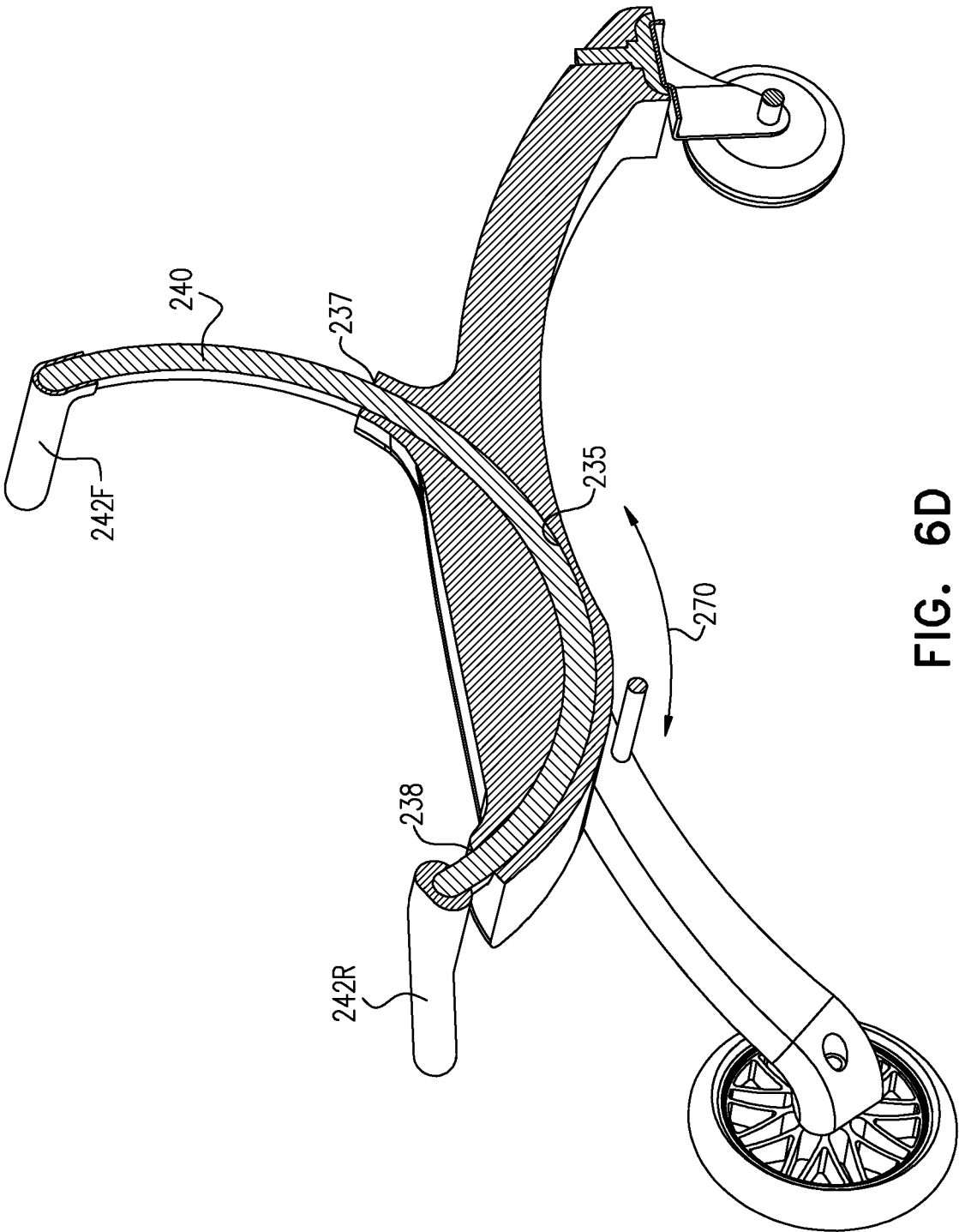


FIG. 6D

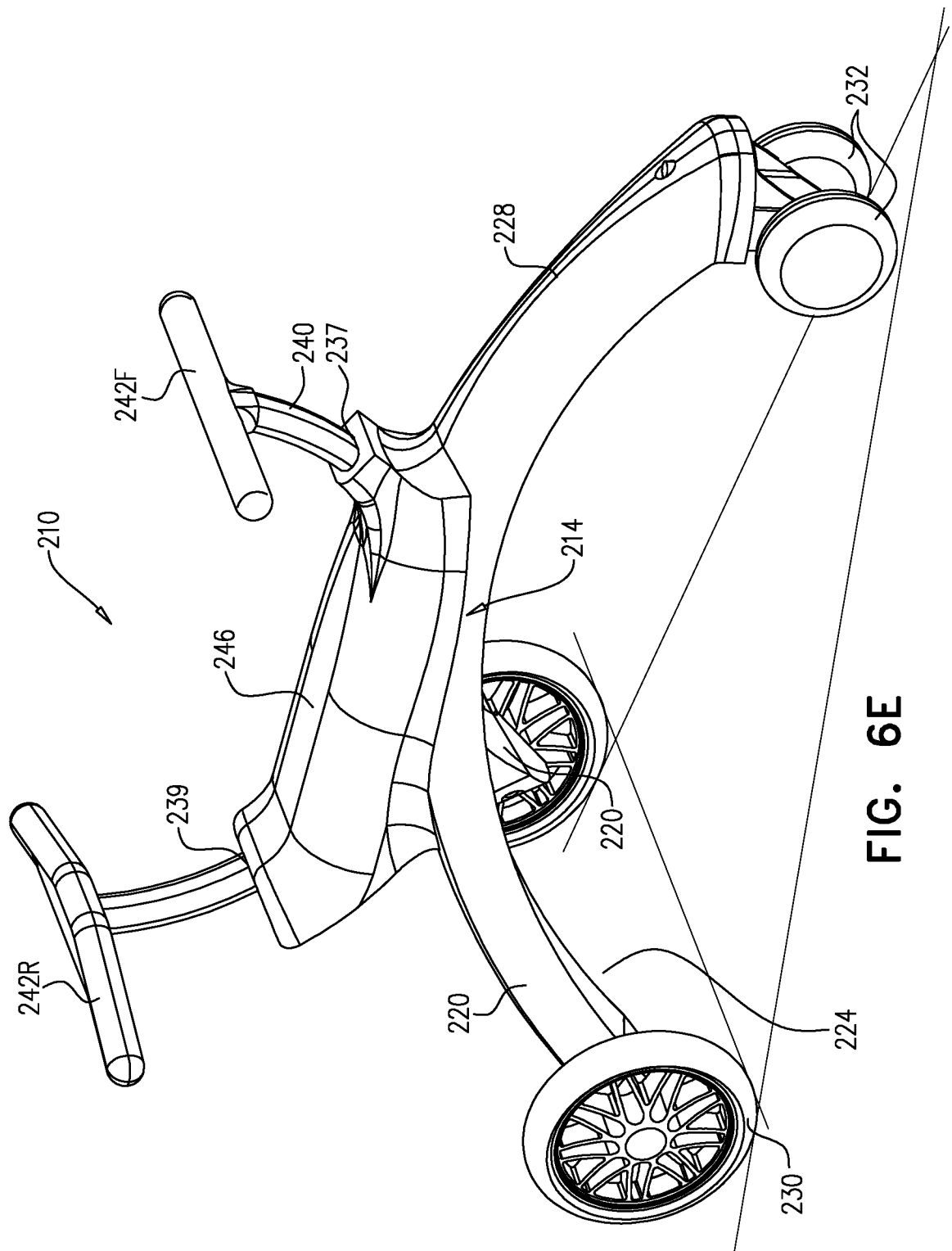
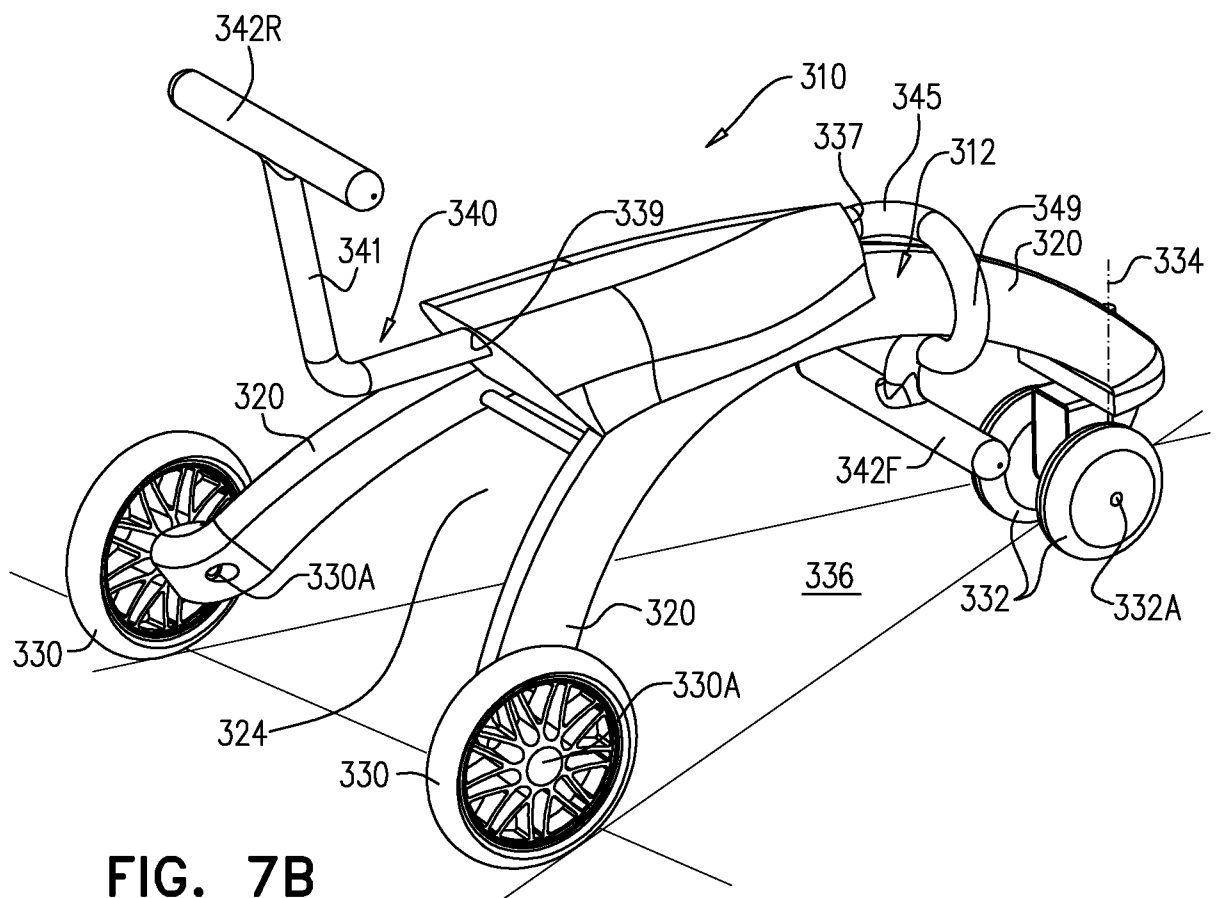
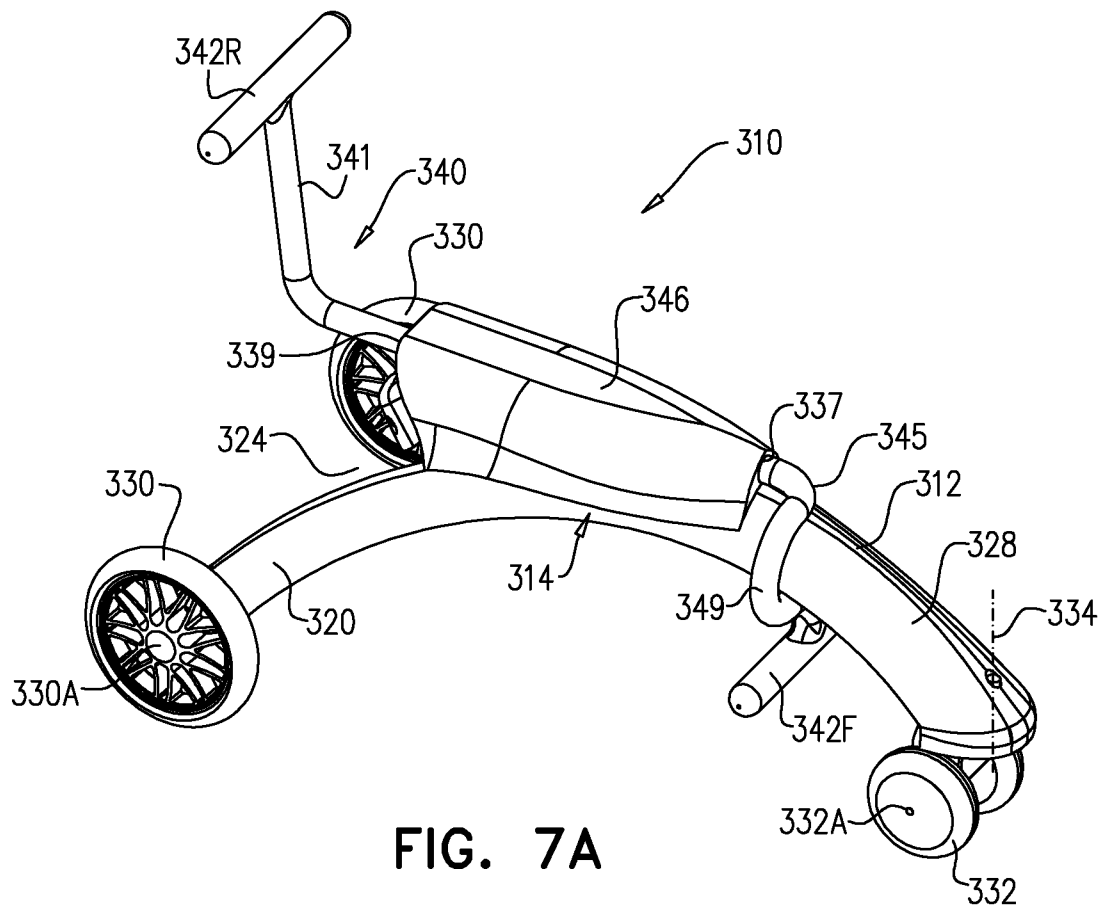
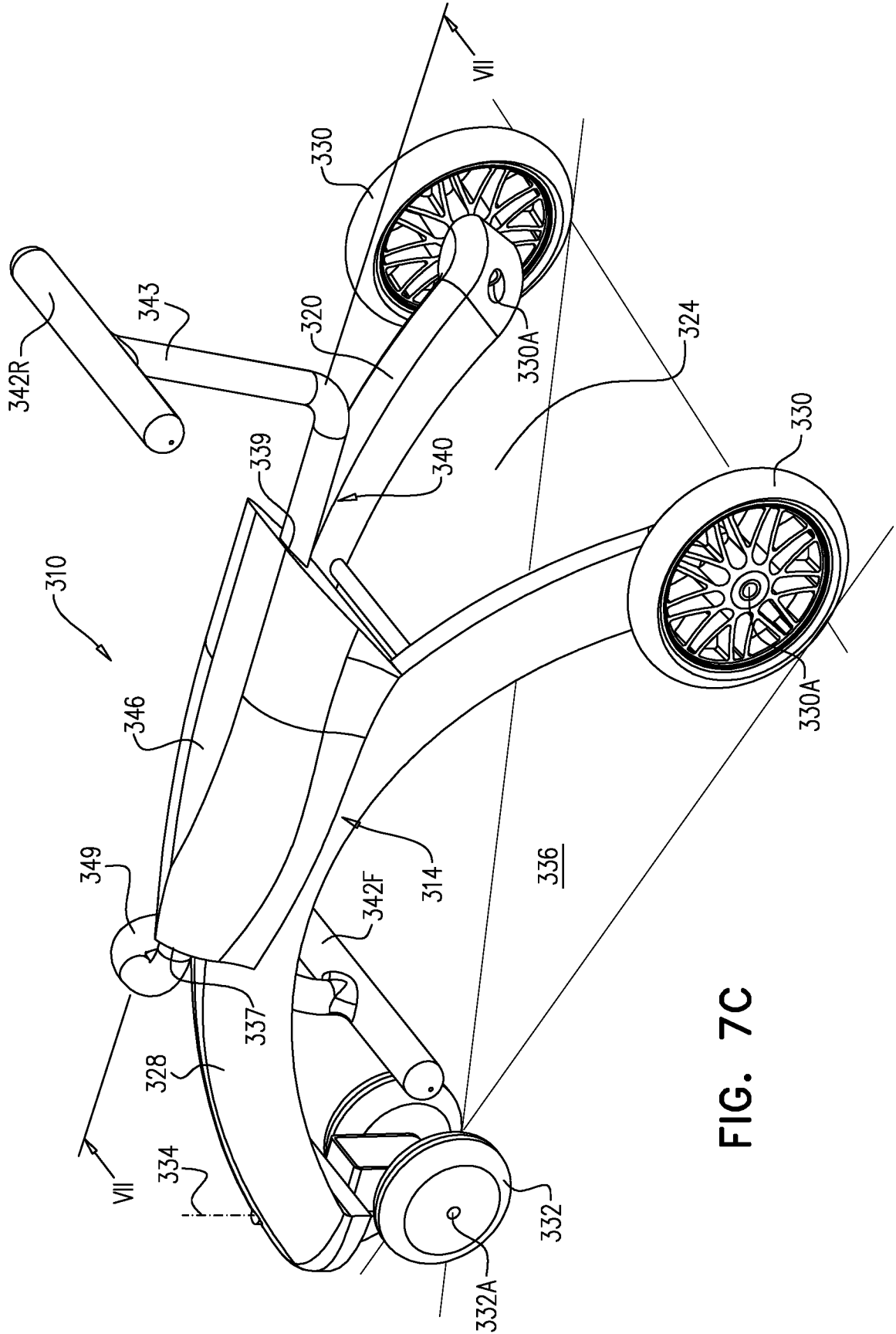


FIG. 6E





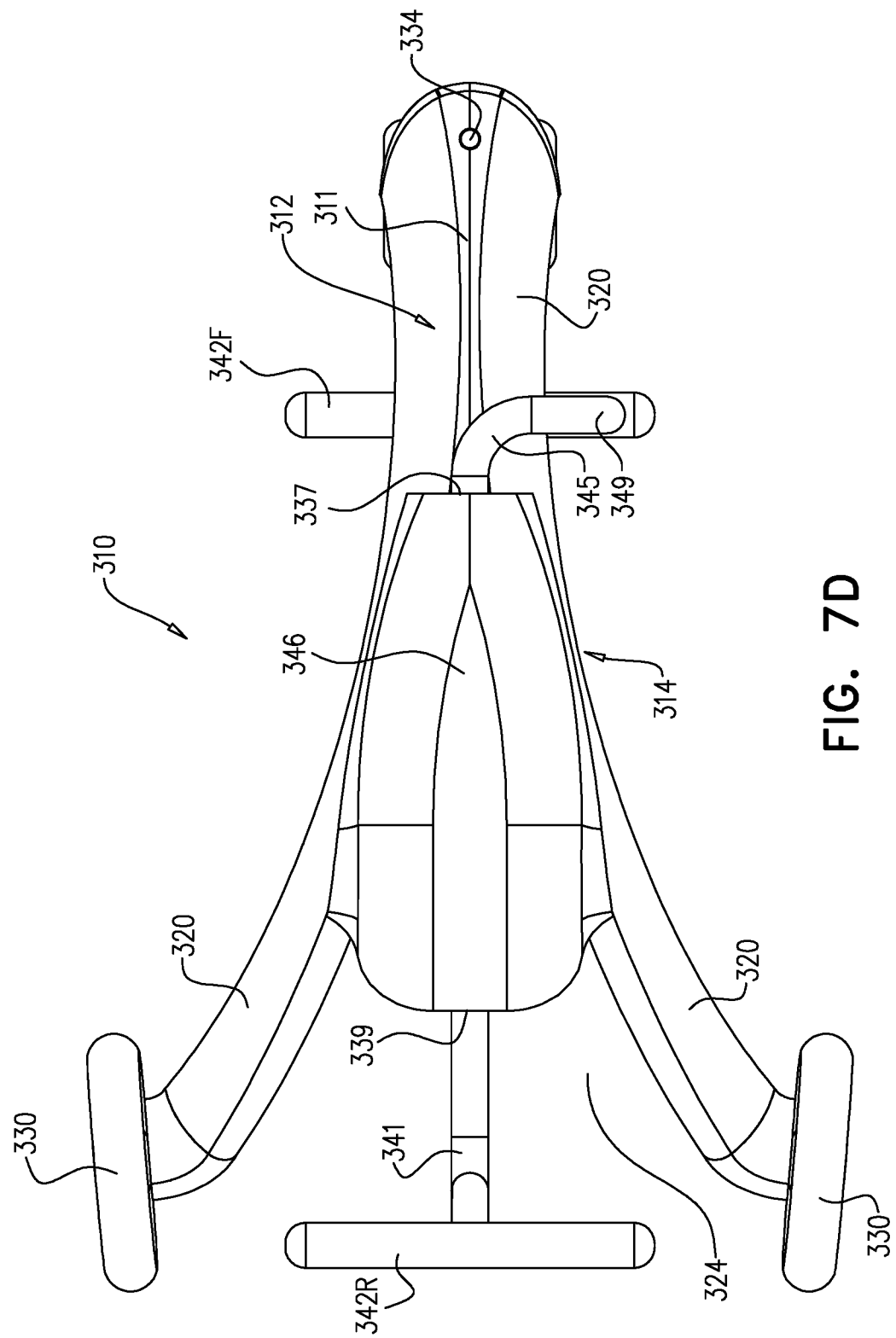


FIG. 7D

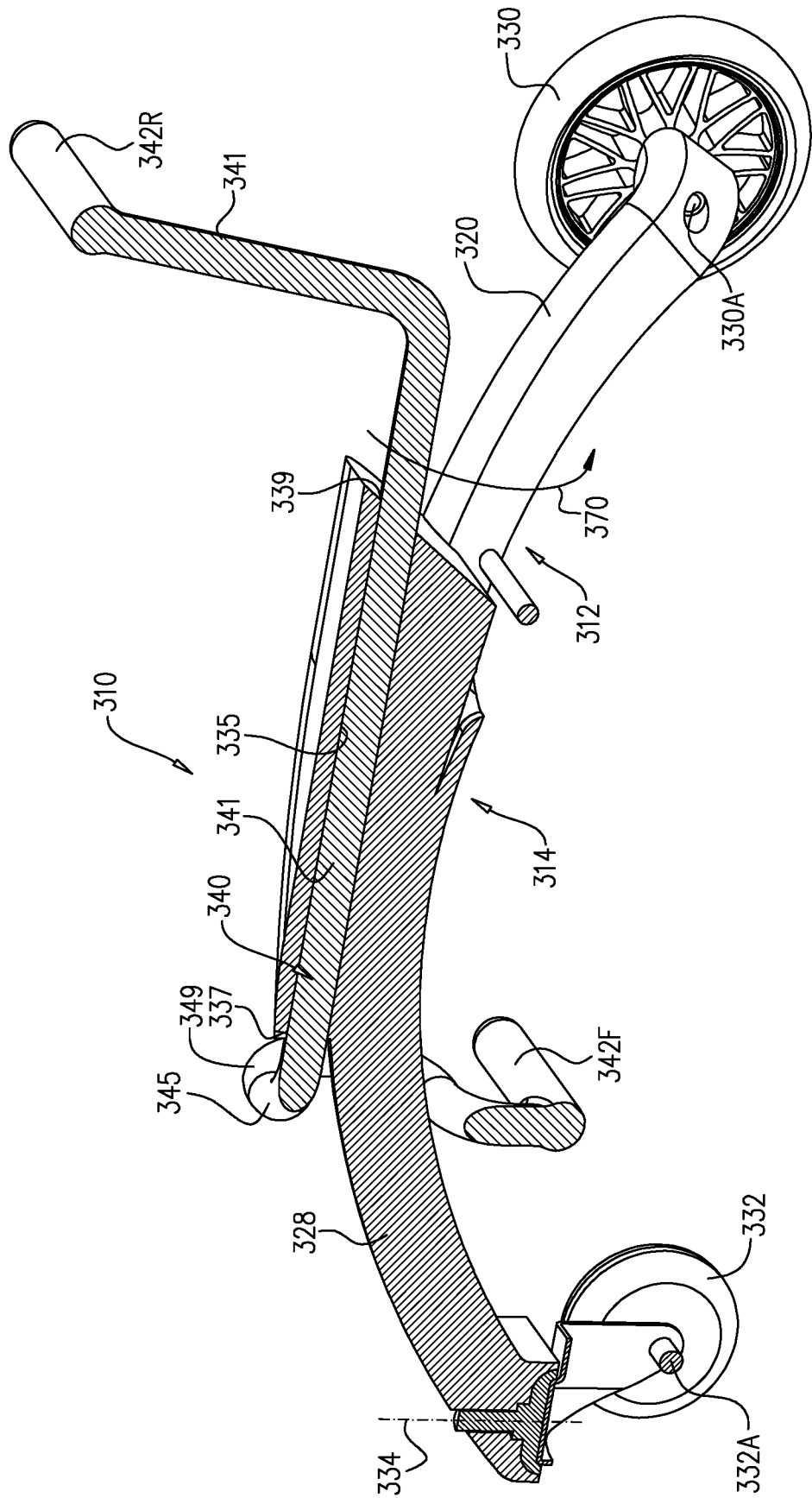


FIG. 7E

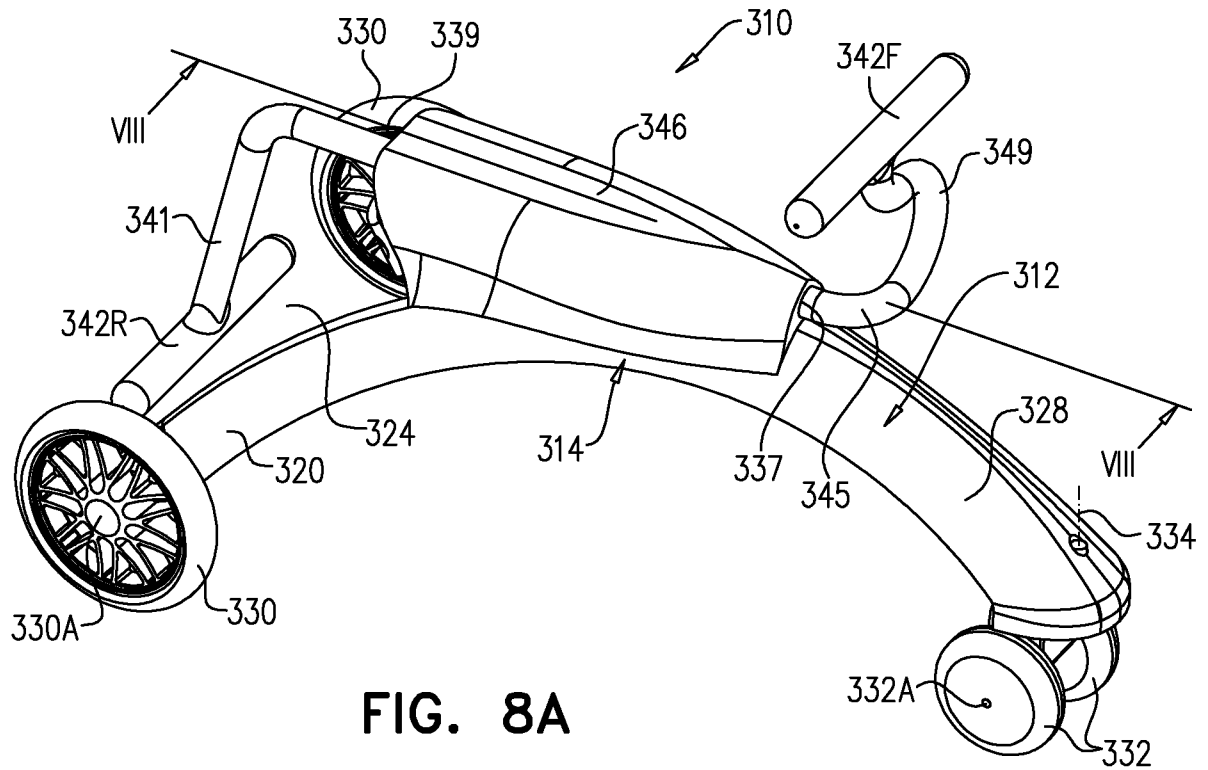


FIG. 8A

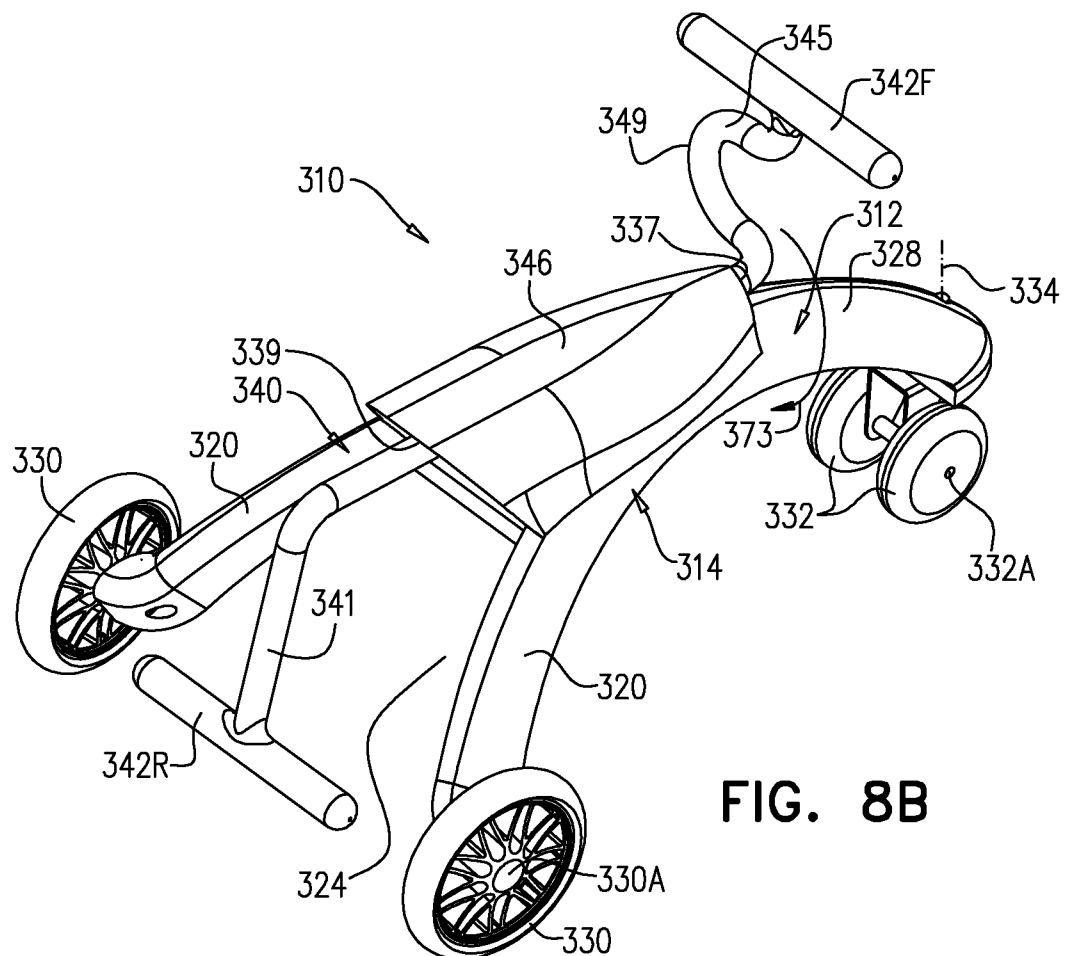


FIG. 8B

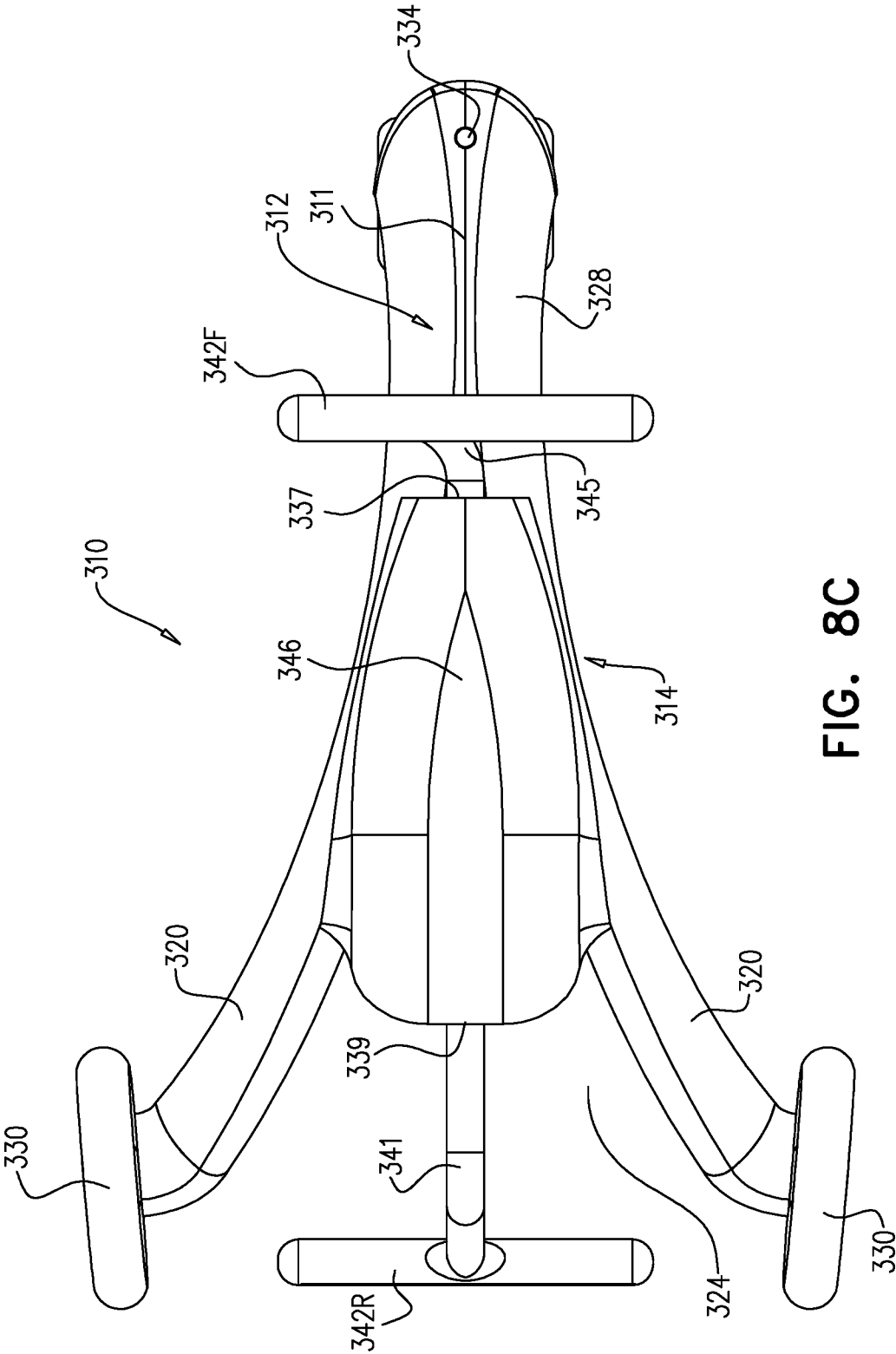


FIG. 8C

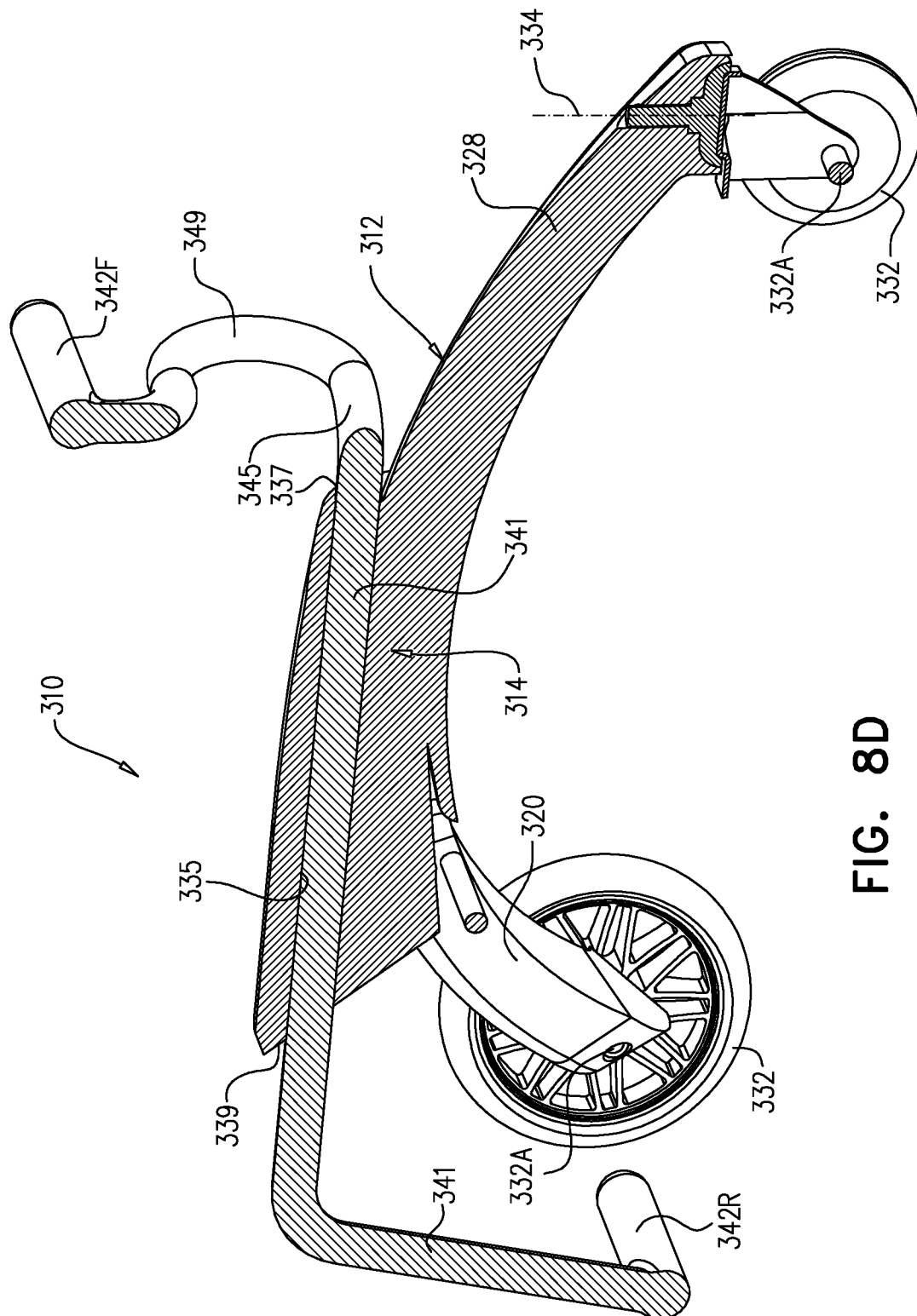


FIG. 8D

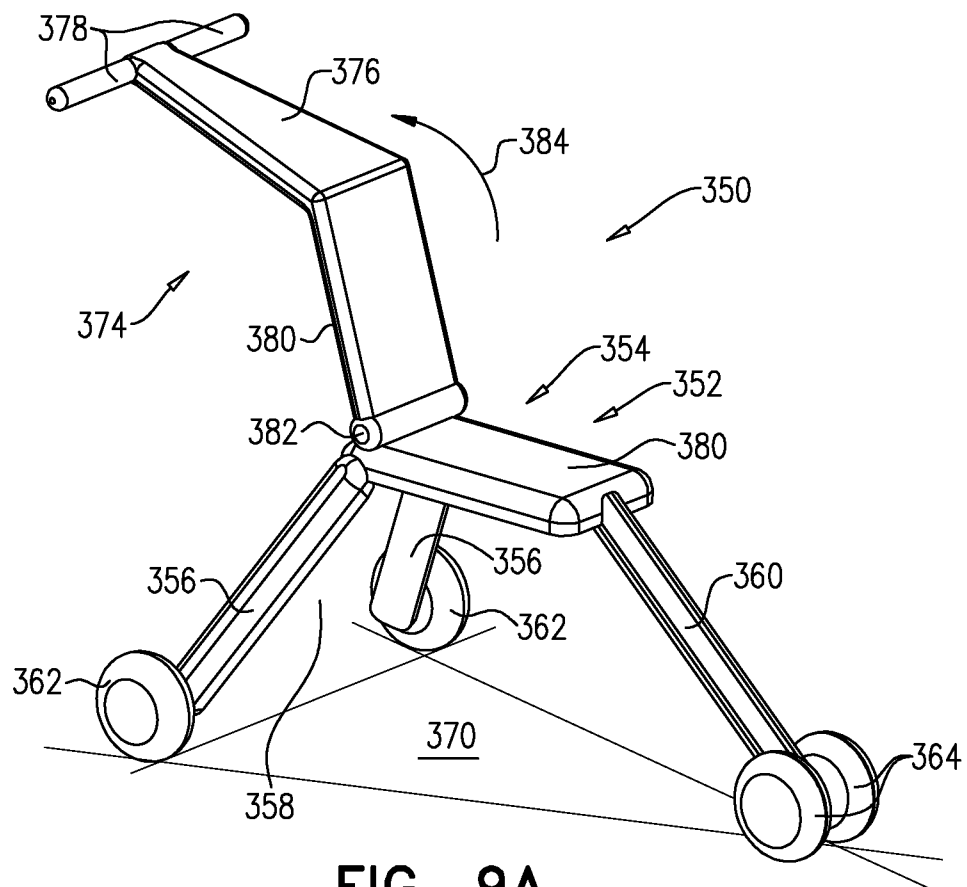


FIG. 9A

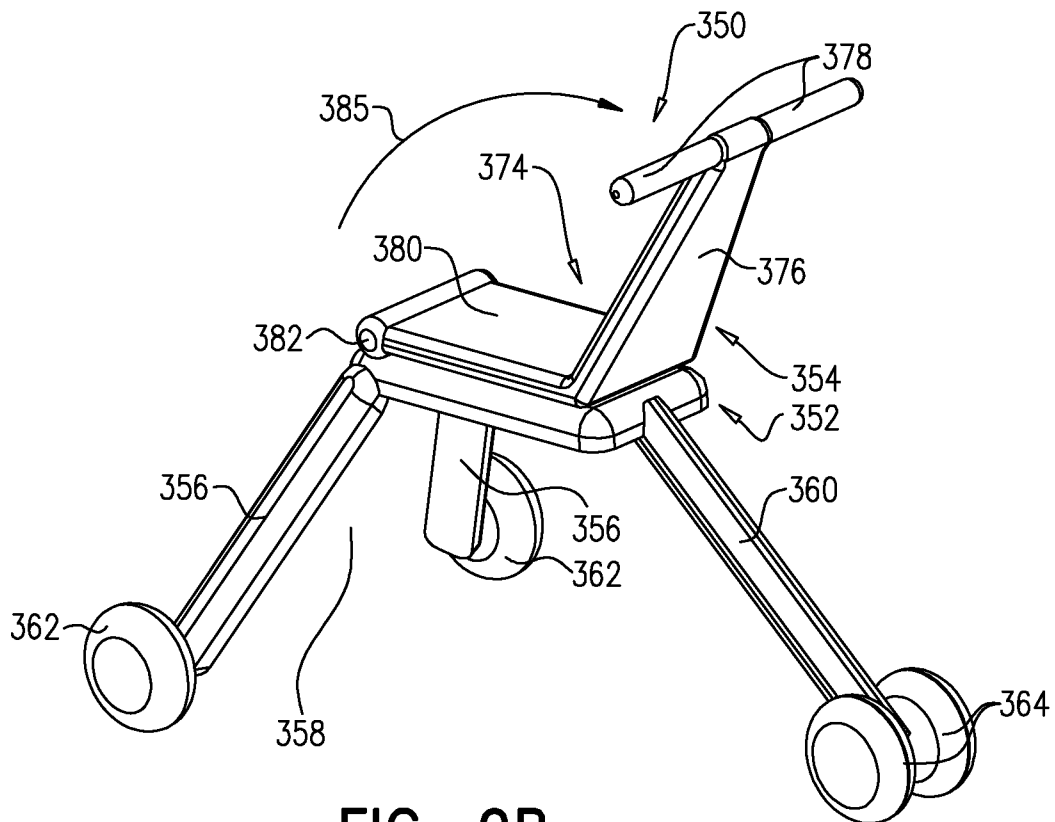


FIG. 9B

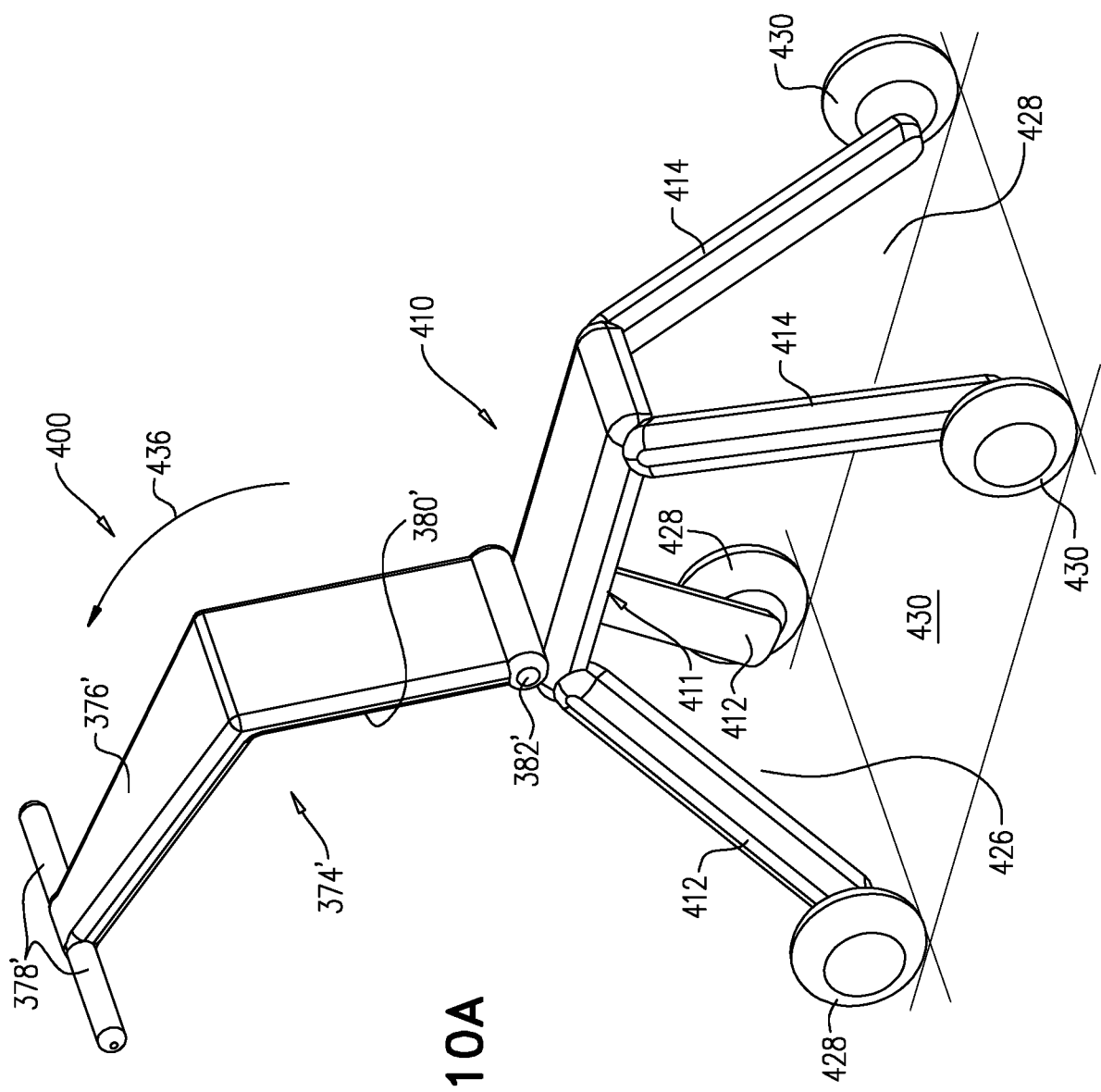


FIG. 10A

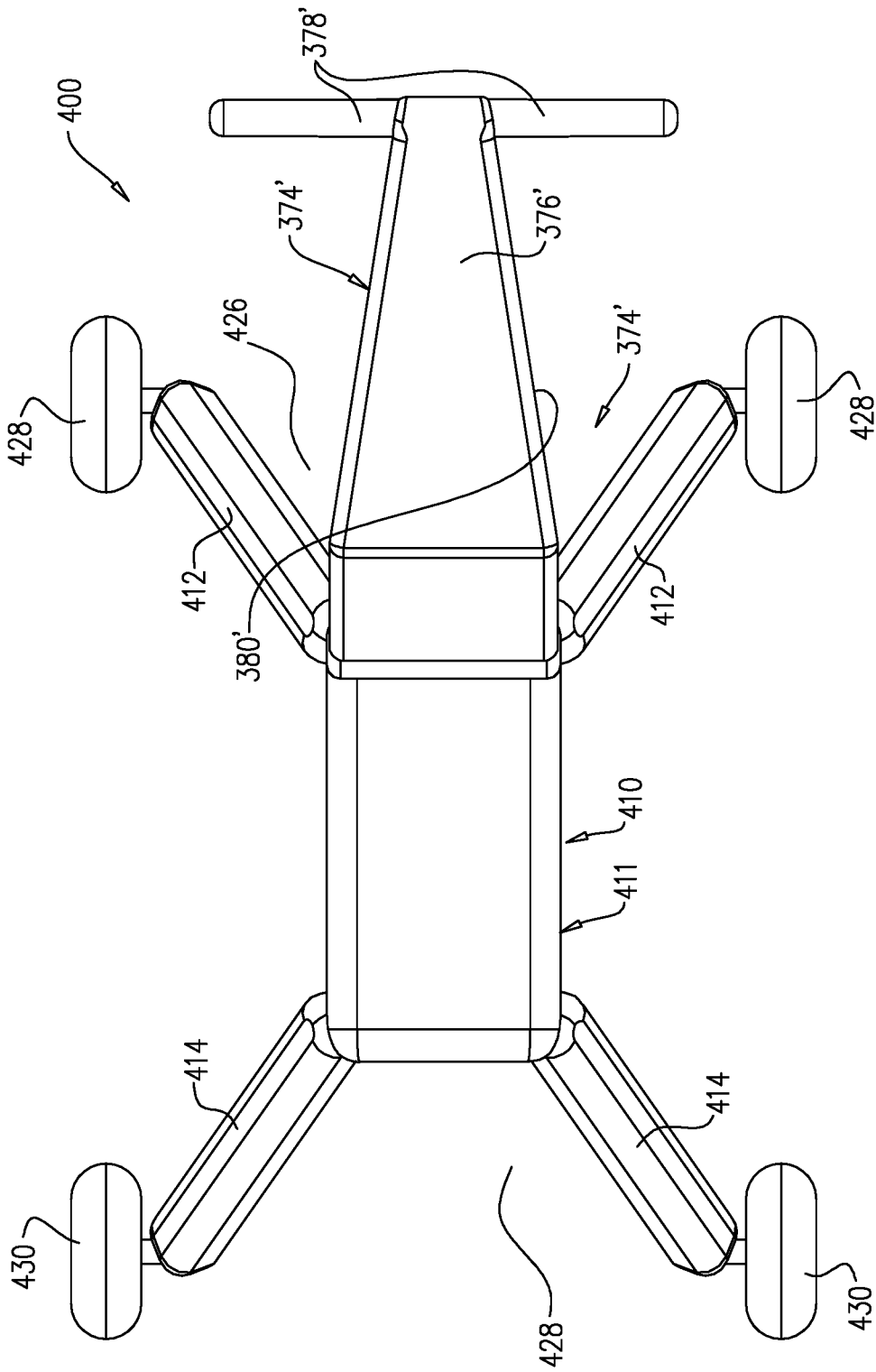


FIG. 10B

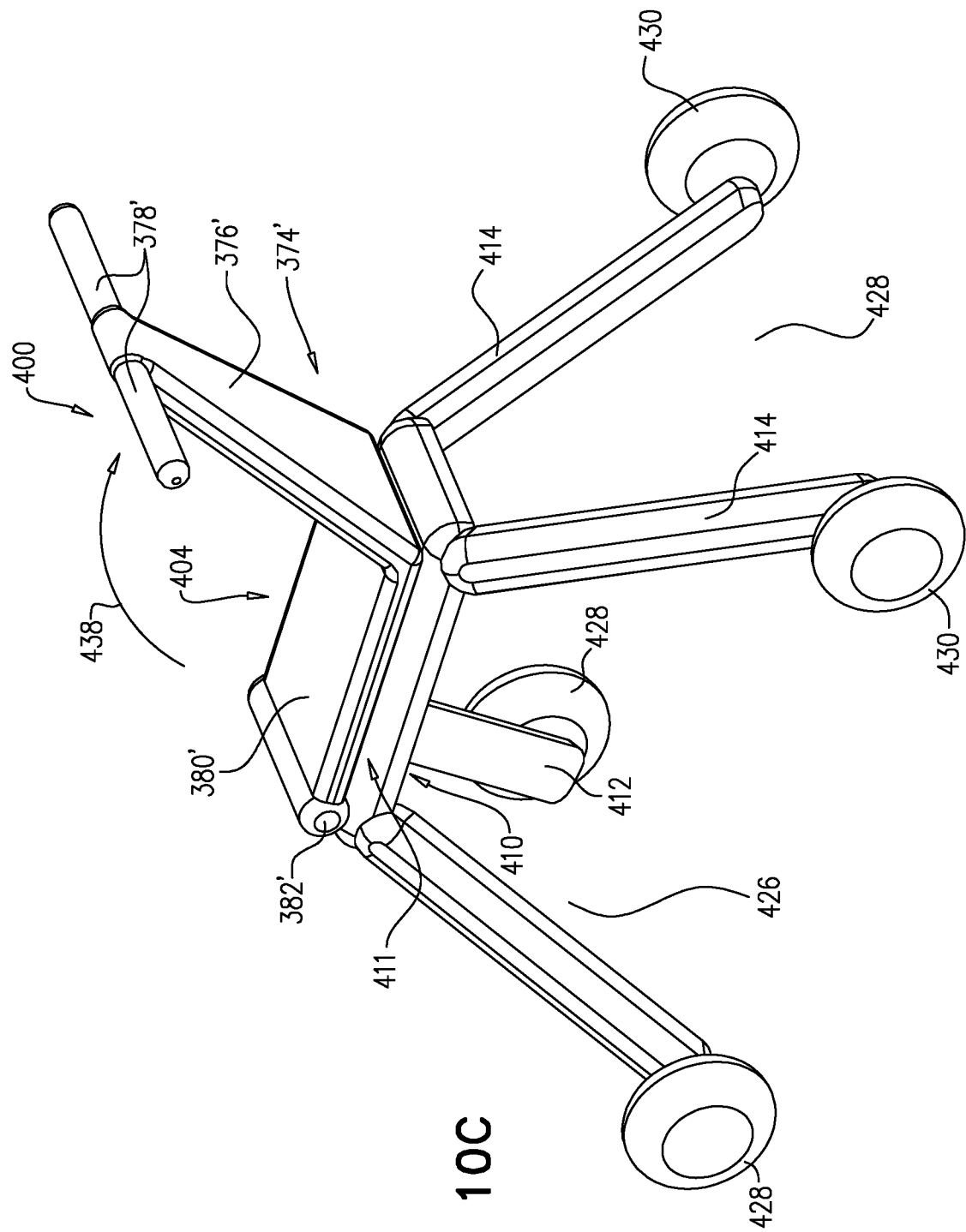


FIG. 10C

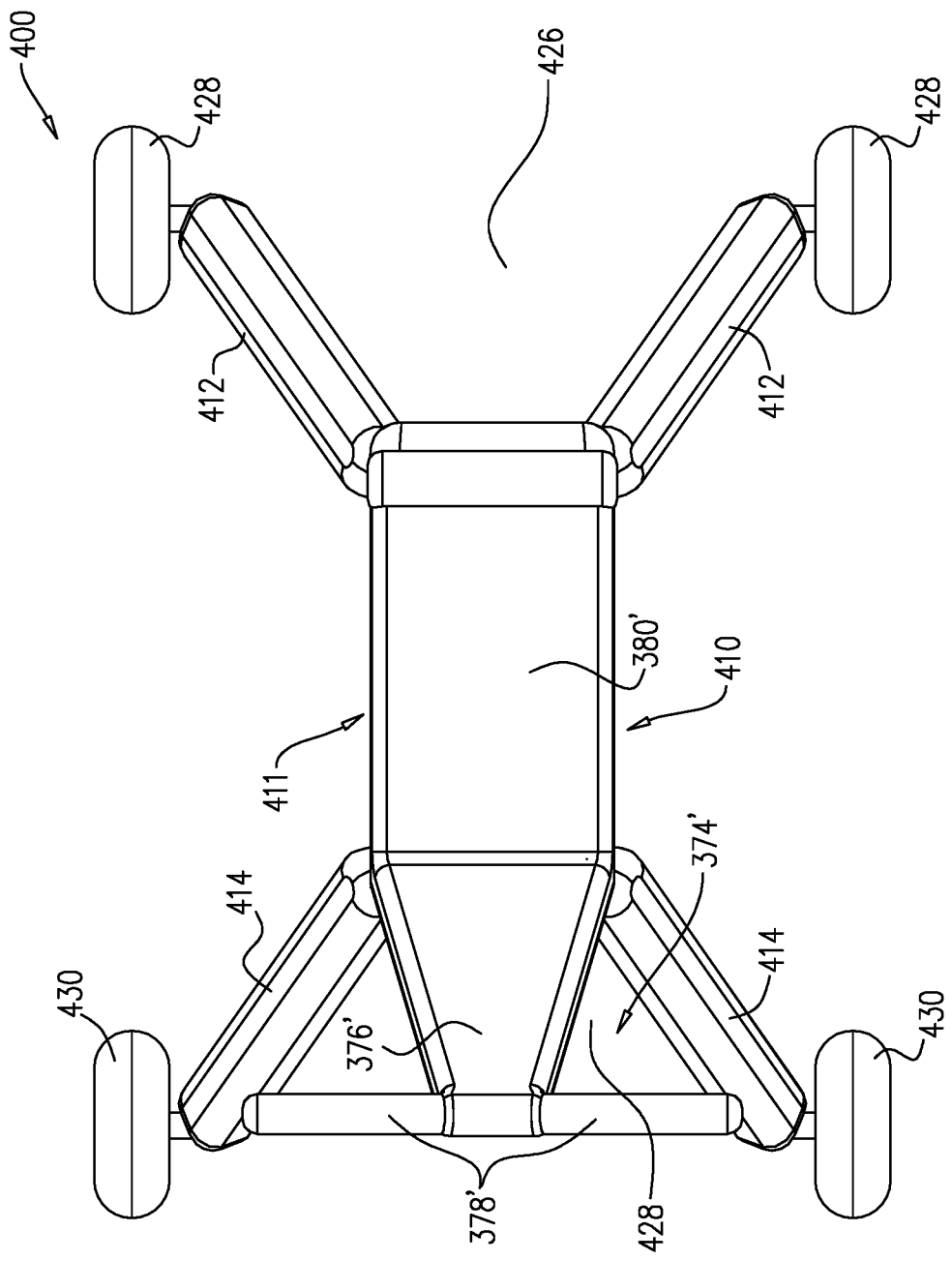


FIG. 10D

INTERNATIONAL SEARCH REPORT

International application No
PCT/IL2019/051013

A. CLASSIFICATION OF SUBJECT MATTER

INV. B62K9/00 B62K13/04 B62K9/02
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B62K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 106 476 875 A (UNIV GUILIN ELECT TECH GUET) 8 March 2017 (2017-03-08)	1-7, 11-38
A	the whole document	8-10
A	----- CN 106 915 406 A (XU XUE) 4 July 2017 (2017-07-04) abstract; figures 2,4	1
A	----- EP 2 844 208 A1 (ALINK BARBARA ELISABETH [CA]) 11 March 2015 (2015-03-11) paragraphs [0087], [0088]; figures 5,6	1
A	----- US 2010/253035 A1 (MIROEWSKI MICHAEL [US]) 7 October 2010 (2010-10-07) paragraph [0004]; figure 1	1
A	----- US 6 089 586 A (RUDELL ELLIOT [US] ET AL) 18 July 2000 (2000-07-18) paragraphs [0003], [0004]; figures 1-3	1,5,6



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

22 November 2019

Date of mailing of the international search report

29/11/2019

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Huber, Florian

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IL2019/051013

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
CN 106476875	A	08-03-2017	NONE
CN 106915406	A	04-07-2017	NONE
EP 2844208	A1	11-03-2015	CN 104349765 A 11-02-2015 EP 2844207 A2 11-03-2015 EP 2844208 A1 11-03-2015 JP 2015514539 A 21-05-2015 NL 2010082 C2 18-11-2013 US 2015076797 A1 19-03-2015 US 2015145293 A1 28-05-2015 WO 2013162354 A2 31-10-2013 WO 2013162362 A1 31-10-2013
US 2010253035	A1	07-10-2010	NONE
US 6089586	A	18-07-2000	NONE