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**Garwood et al.**

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(54) **MANUALLY PROPELLED WATERCRAFT AND PROPULSION MECHANISM**

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(22) Filed: **Dec. 22, 2004**

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***B63H 16/00*** (2006.01)

(52) **U.S. Cl.** ..... **440/21**; 441/76

(58) **Field of Classification Search** ..... 440/17, 440/21, 25, 19, 91, 92; 441/76, 77
See application file for complete search history.

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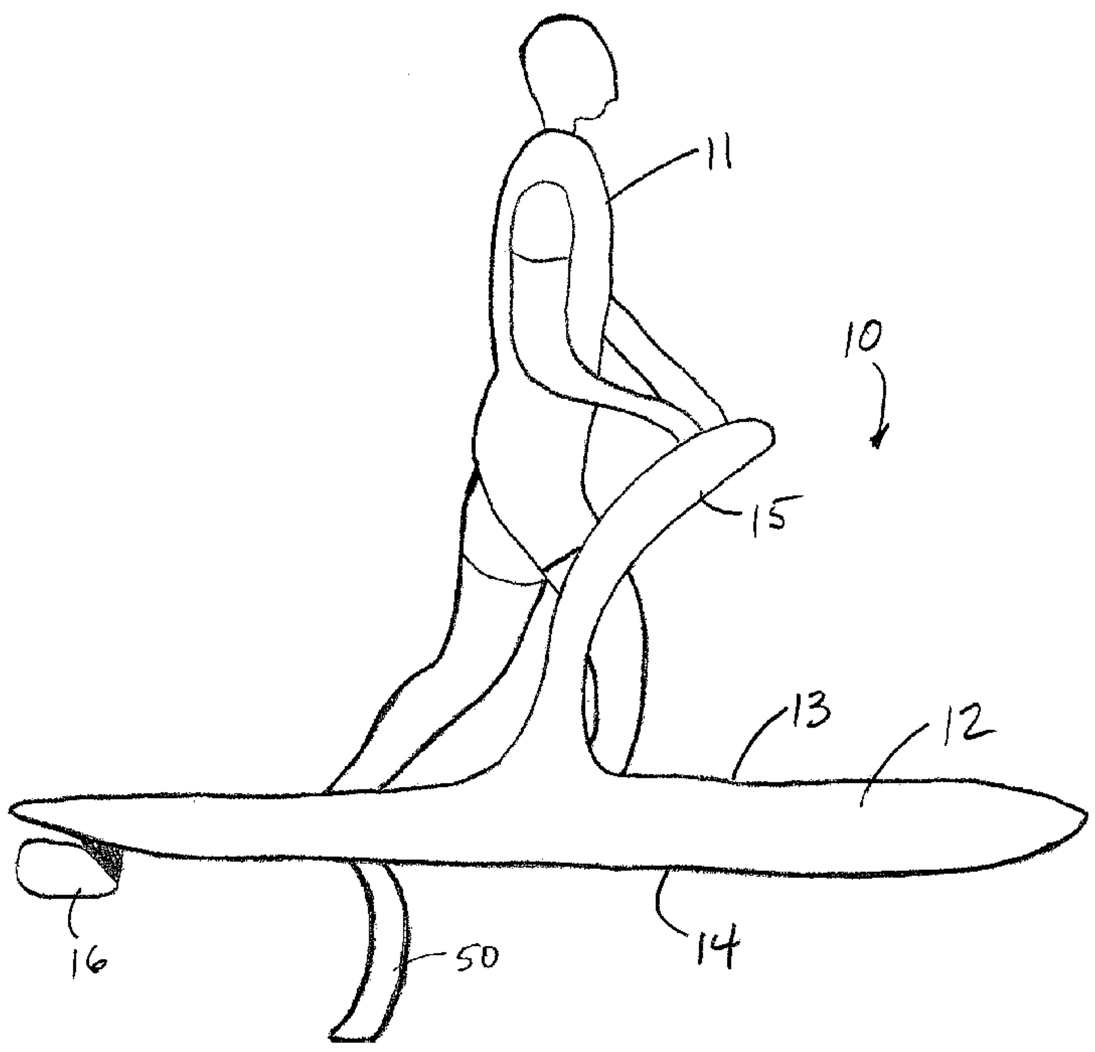
(57) **ABSTRACT**

A manually propelled watercraft for transporting a user on water, comprising a buoyant body having a longitudinal axis and a top side and a bottom side disposed adjacent to the water, a track disposed on the body substantially parallel to the longitudinal axis, a vehicle having a bottom side and being slidably coupled to the track and movable to and from first and second positions relative to the body, and a fin coupled to the bottom side of the vehicle and being movable to and from an extended position that is inclined relative to the longitudinal axis and a retracted position that is substantially parallel to the longitudinal axis, wherein when the vehicle is moved from the first position to the second position, the first fin is substantially disposed in the extended position to maximize water resistance for propulsion of the body, and when the first vehicle is moved from the second position to the first position, the first fin is substantially disposed in the retracted position to minimize water resistance.

**25 Claims, 12 Drawing Sheets**



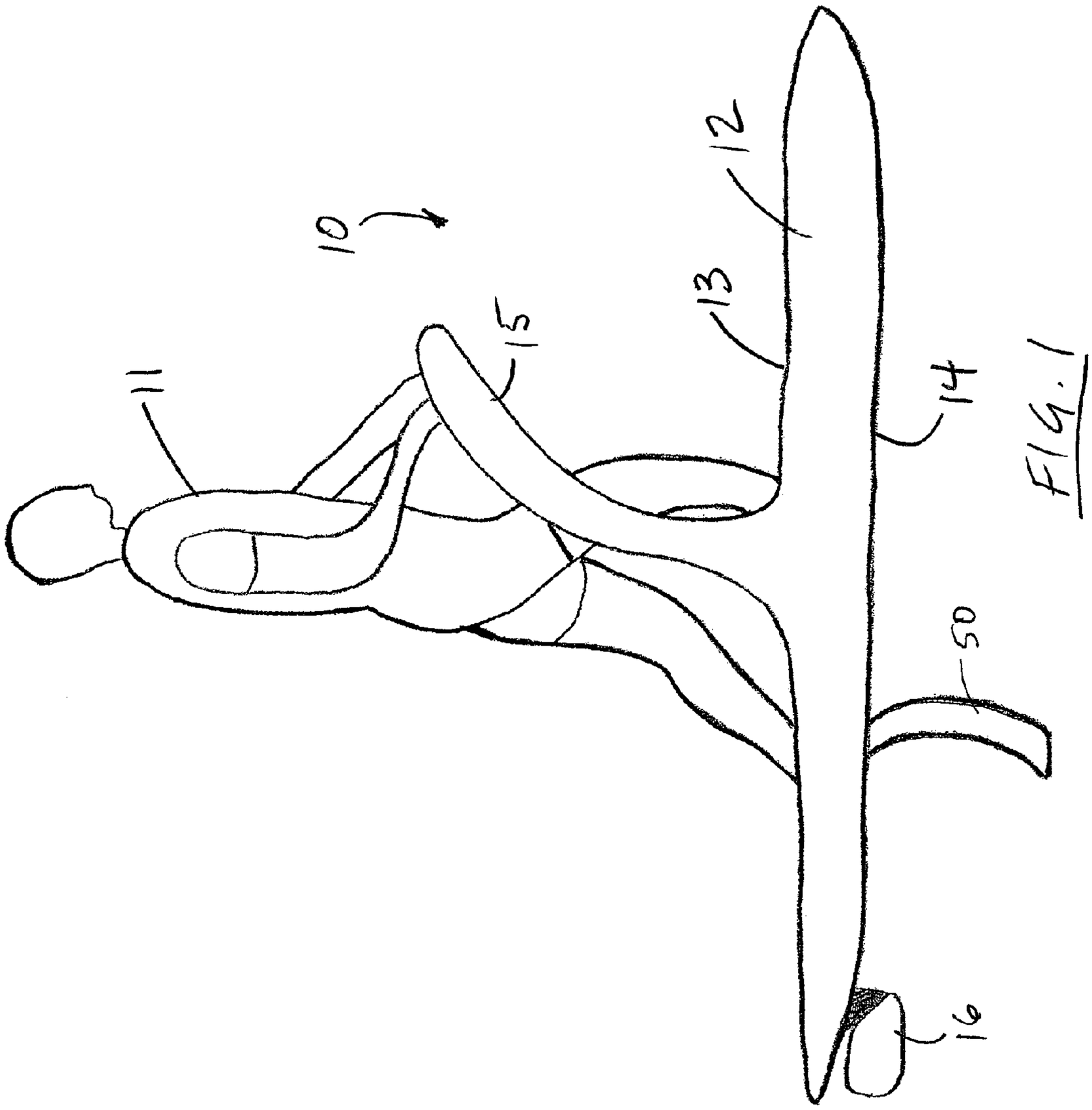



FIG. 1

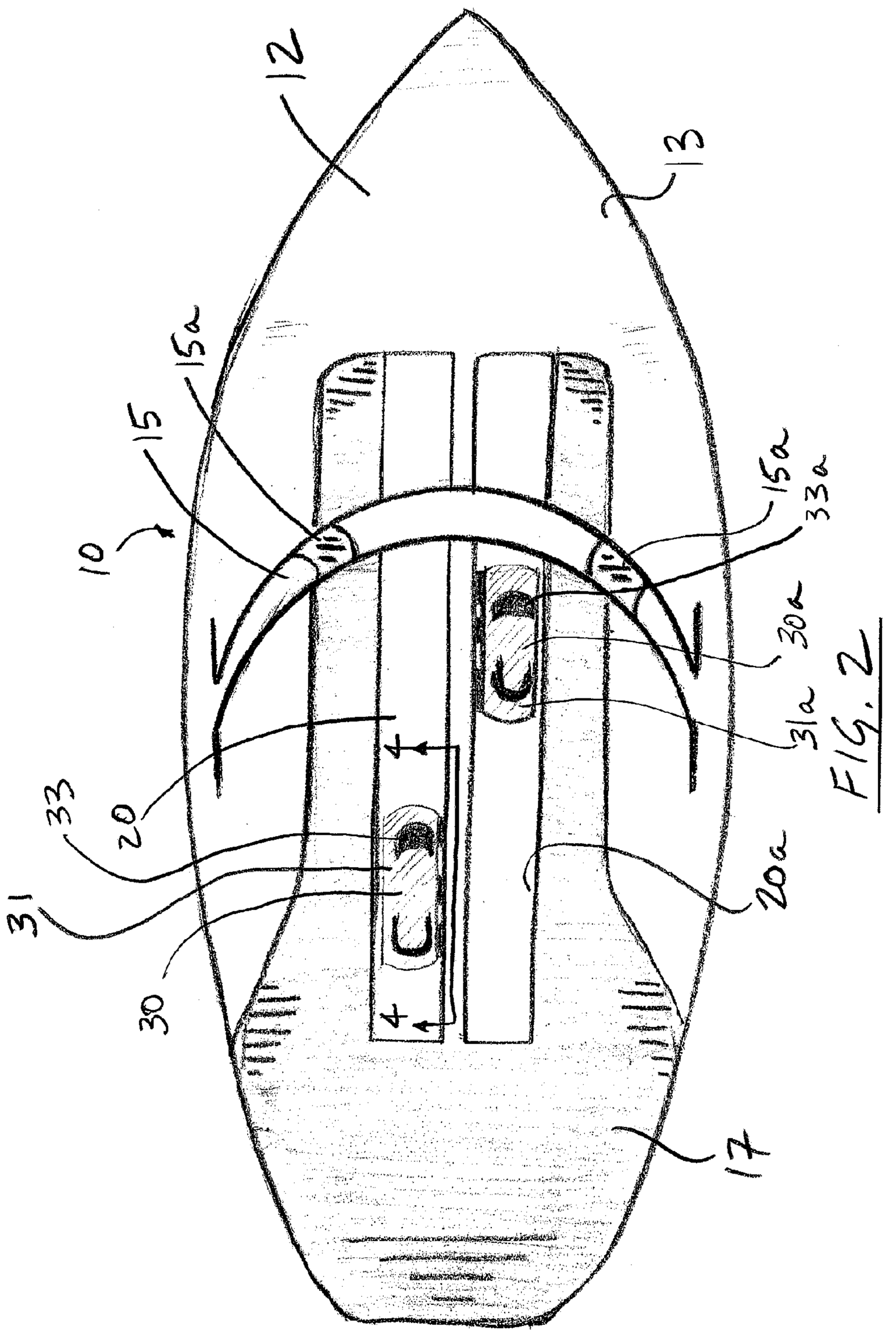



FIG. 2

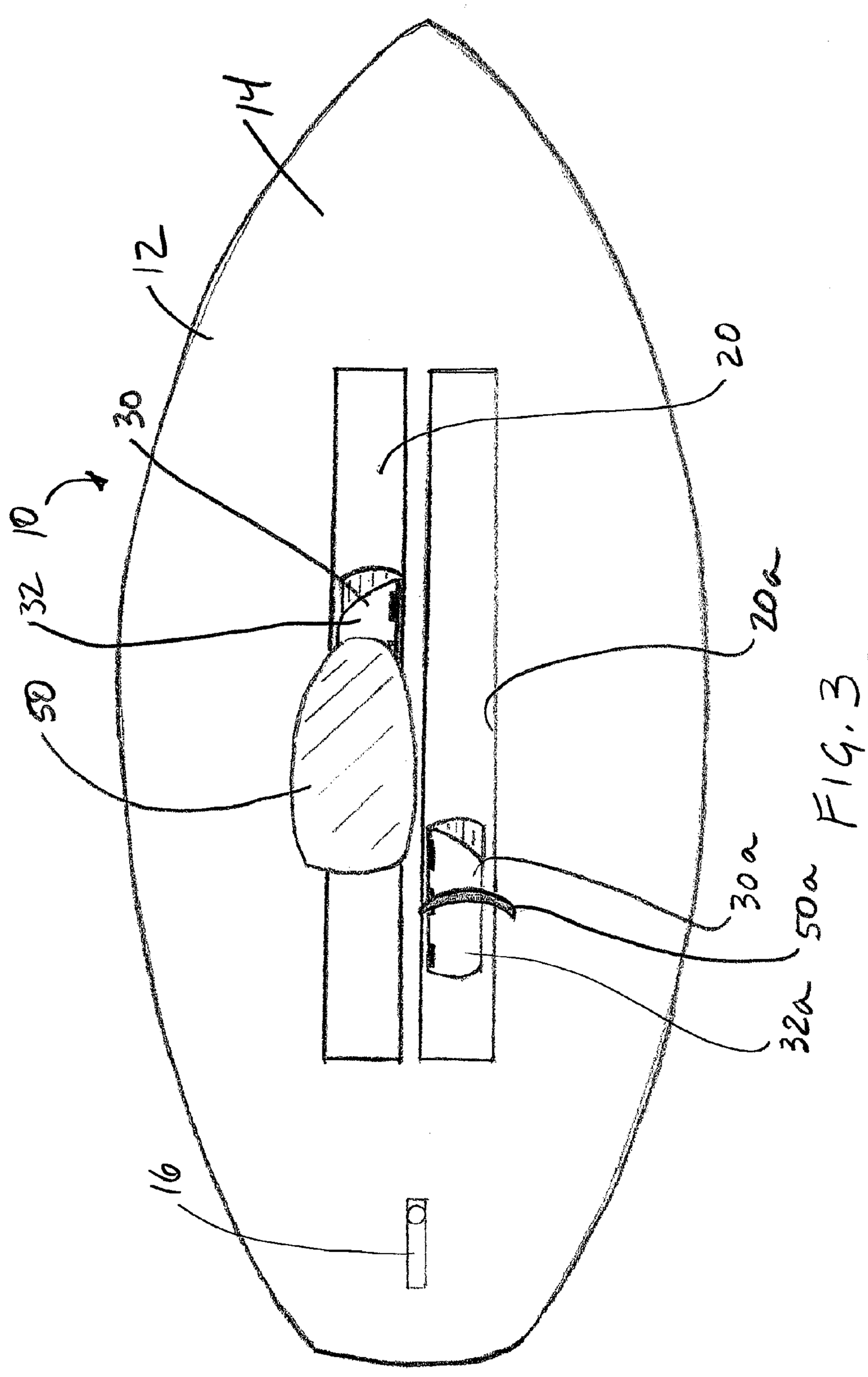



FIG. 3

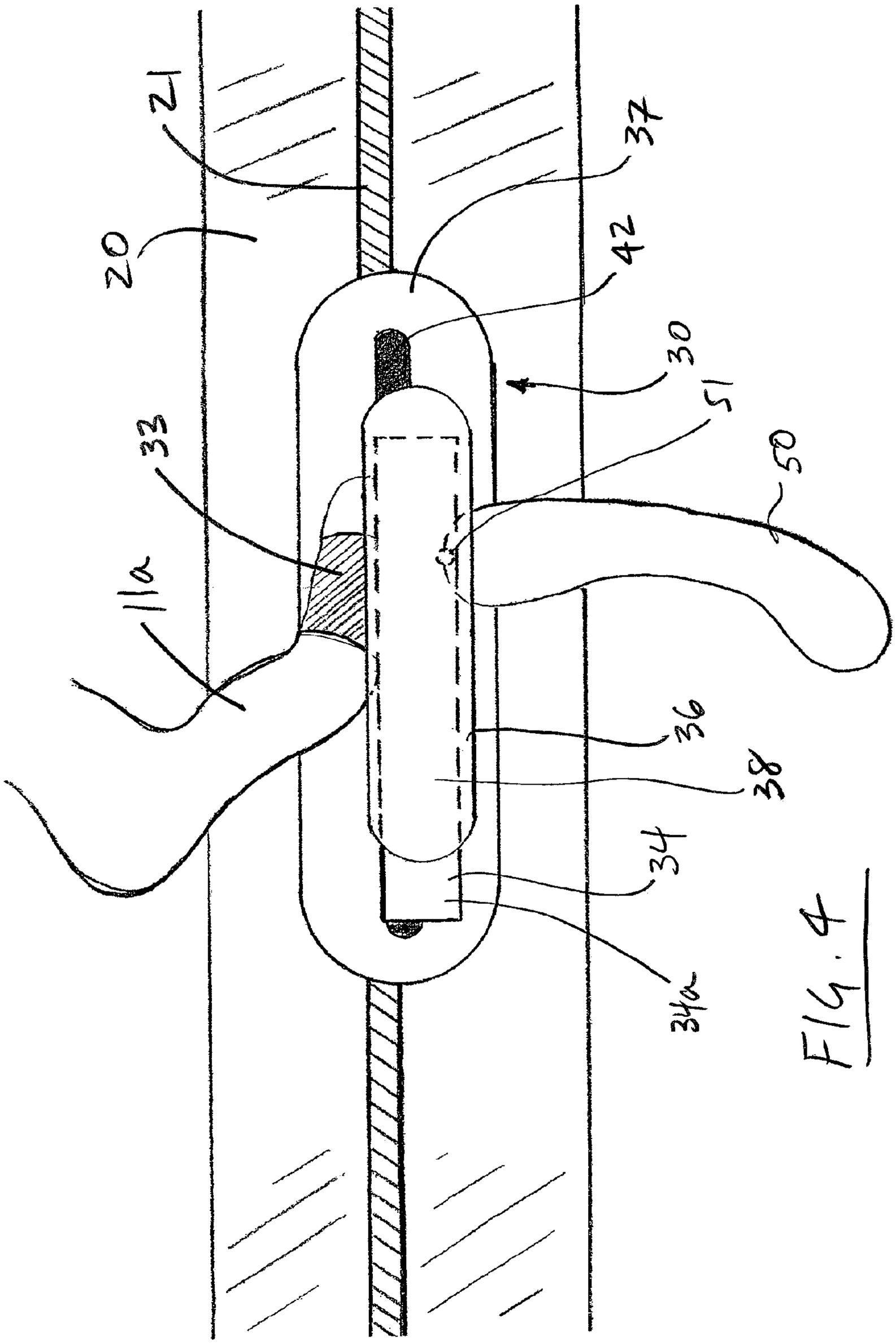



FIG. 4

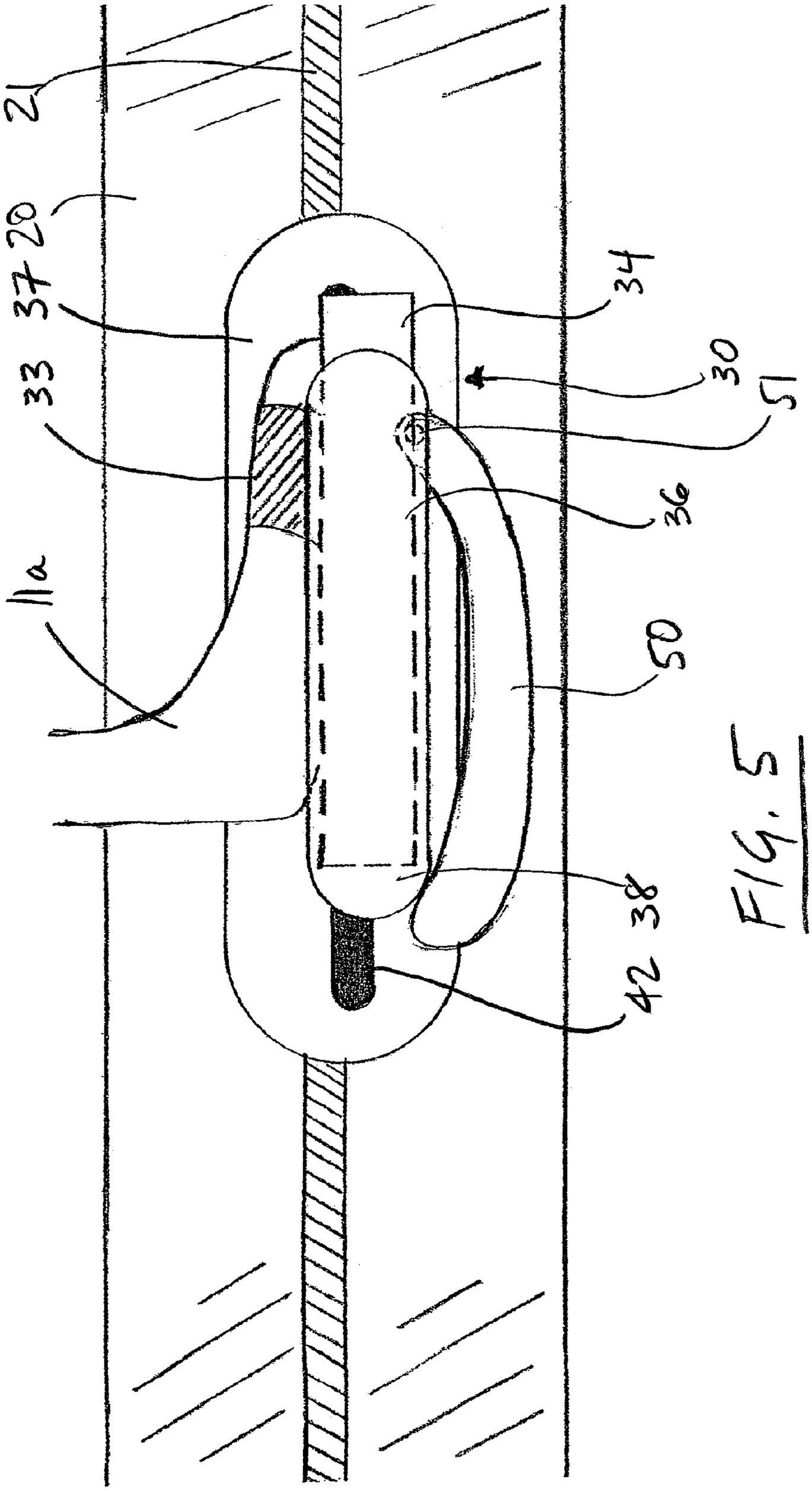



FIG. 5

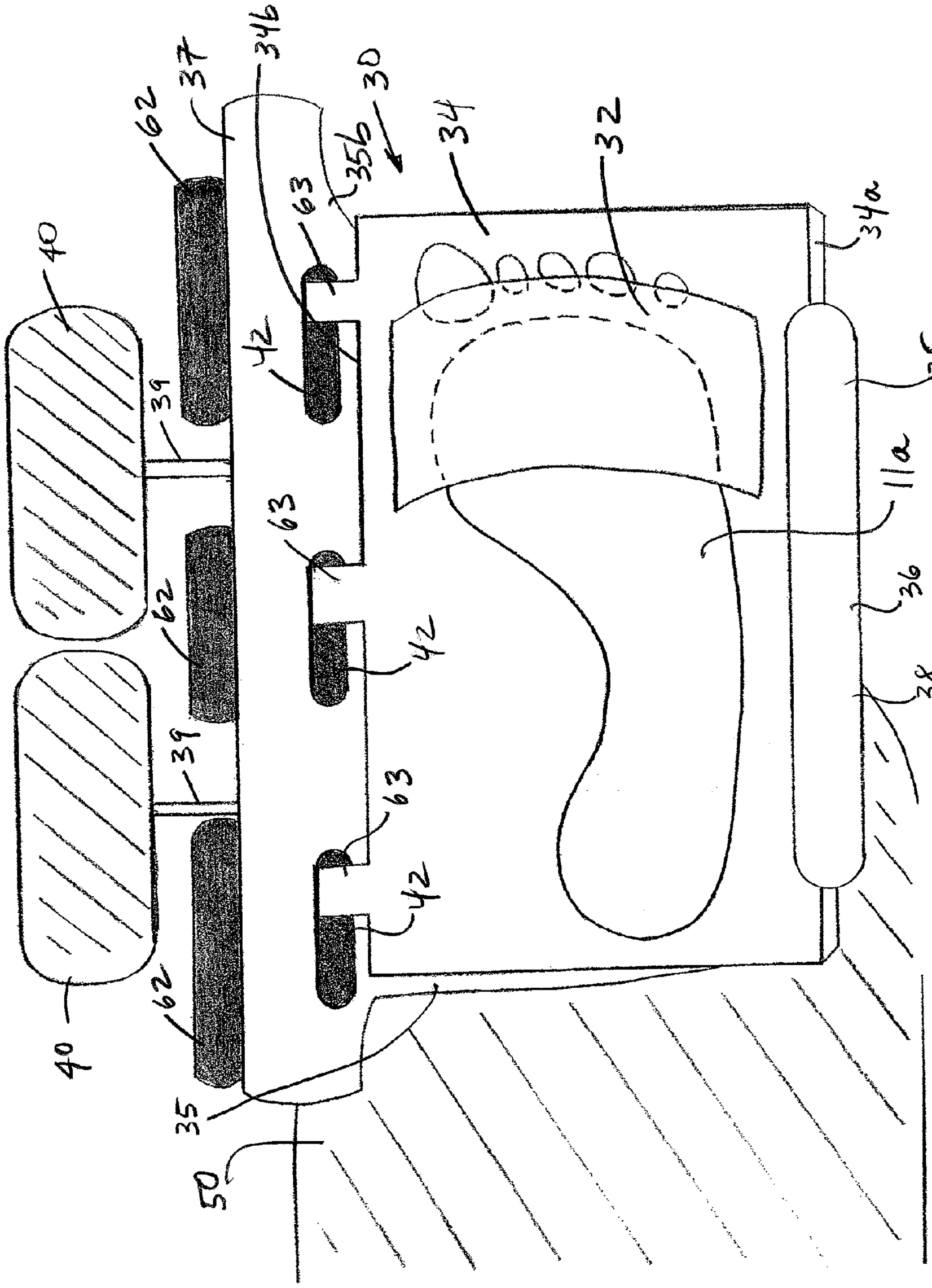

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FIG. 6

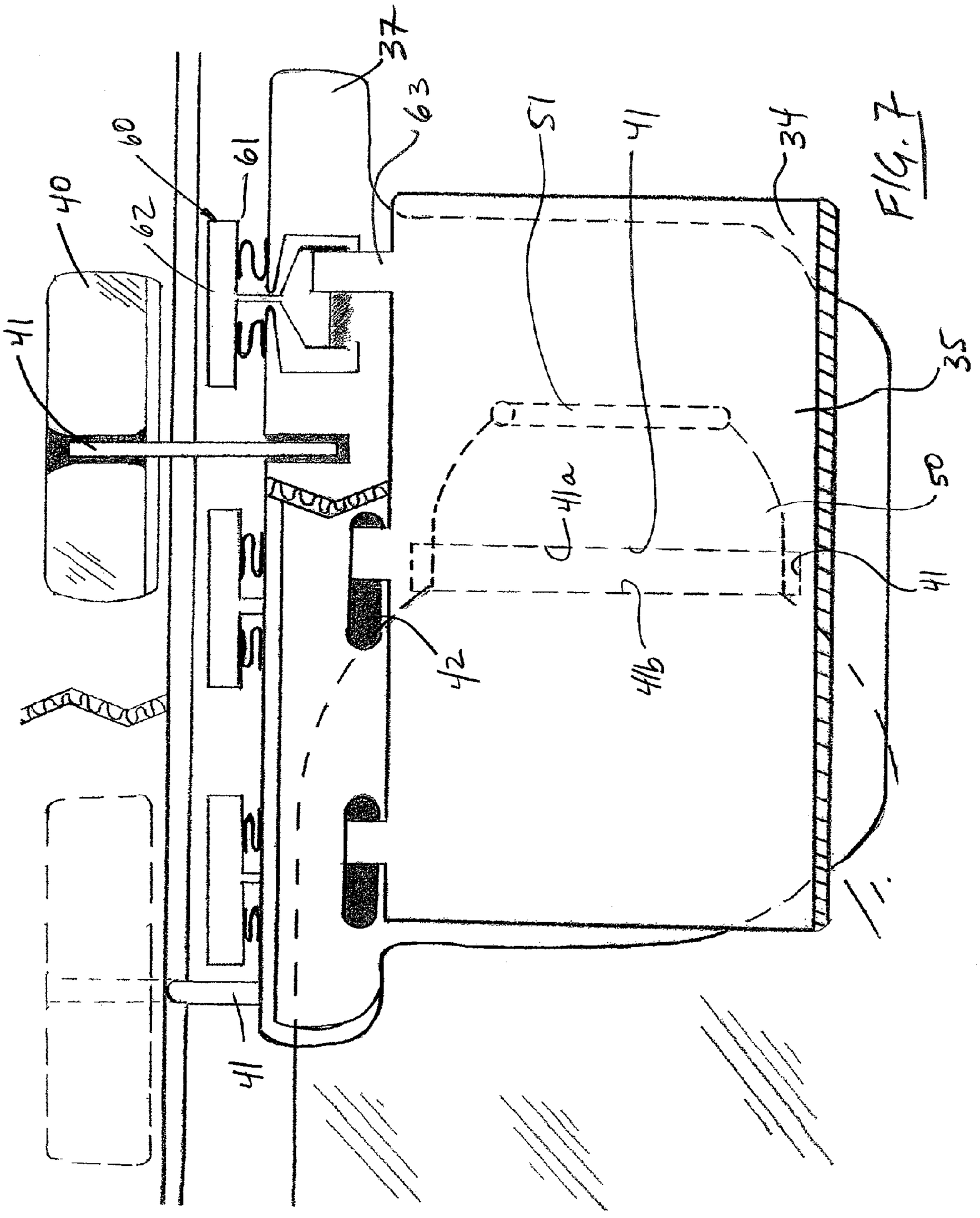
37
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FIG. 7

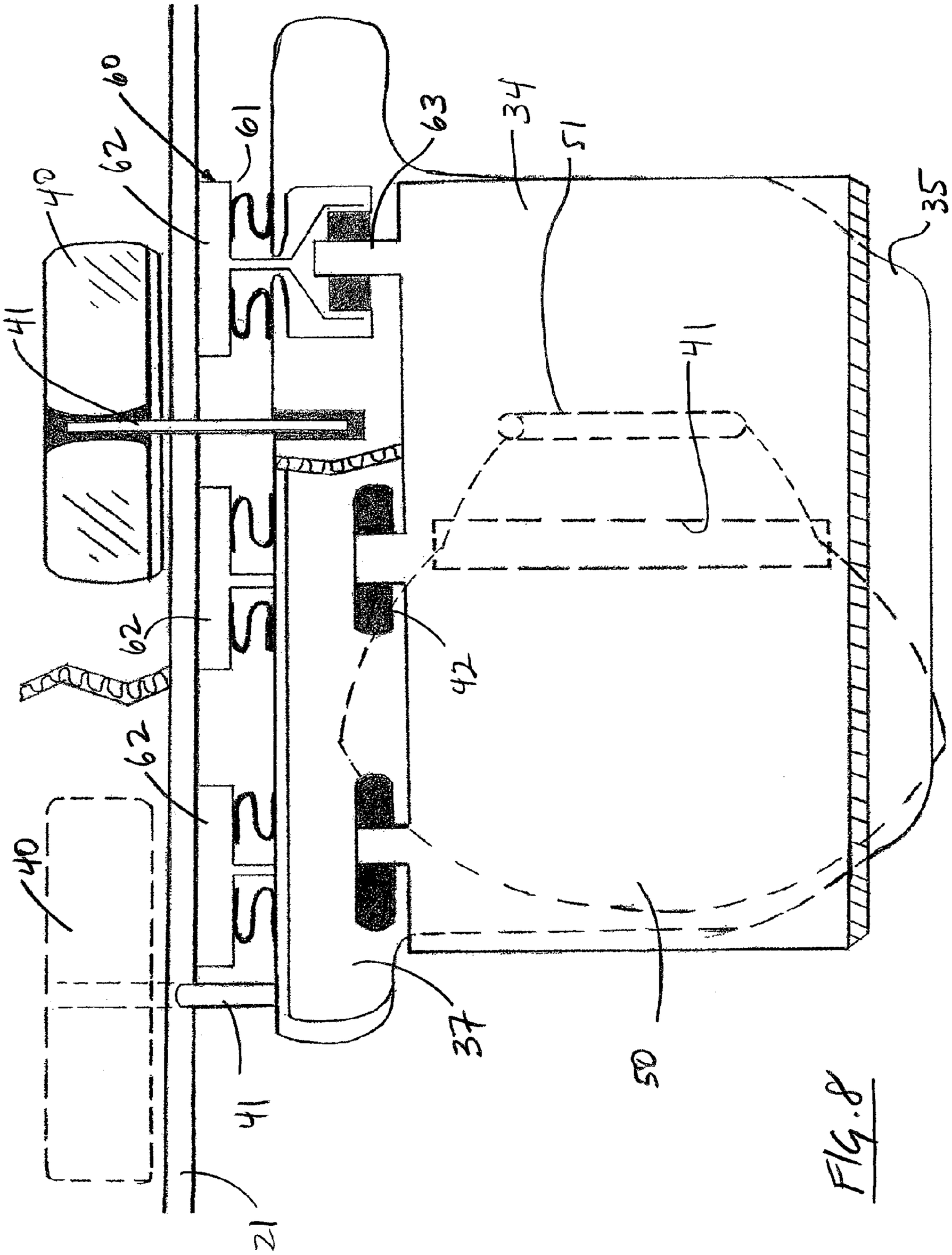


FIG. 8

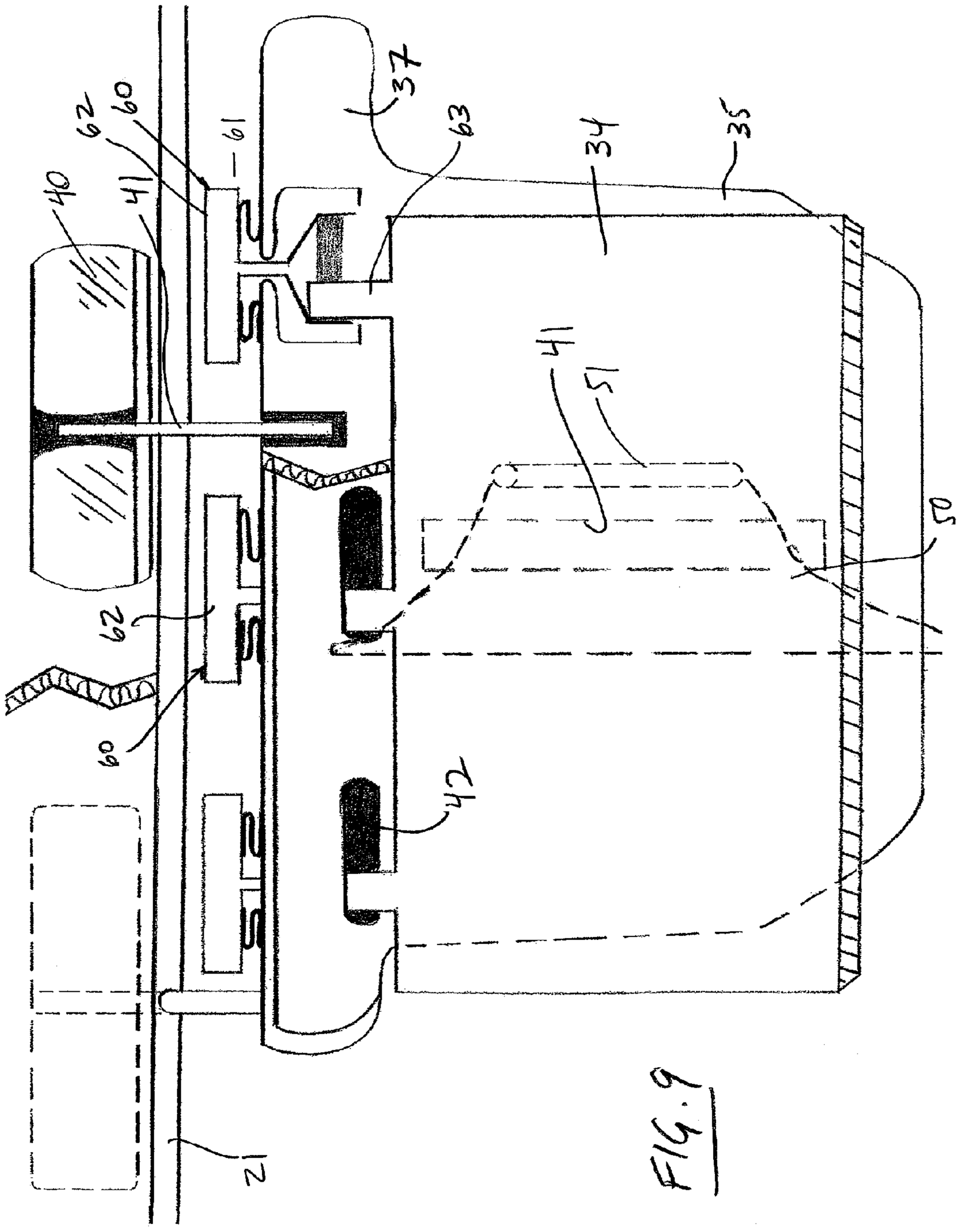


FIG. 9

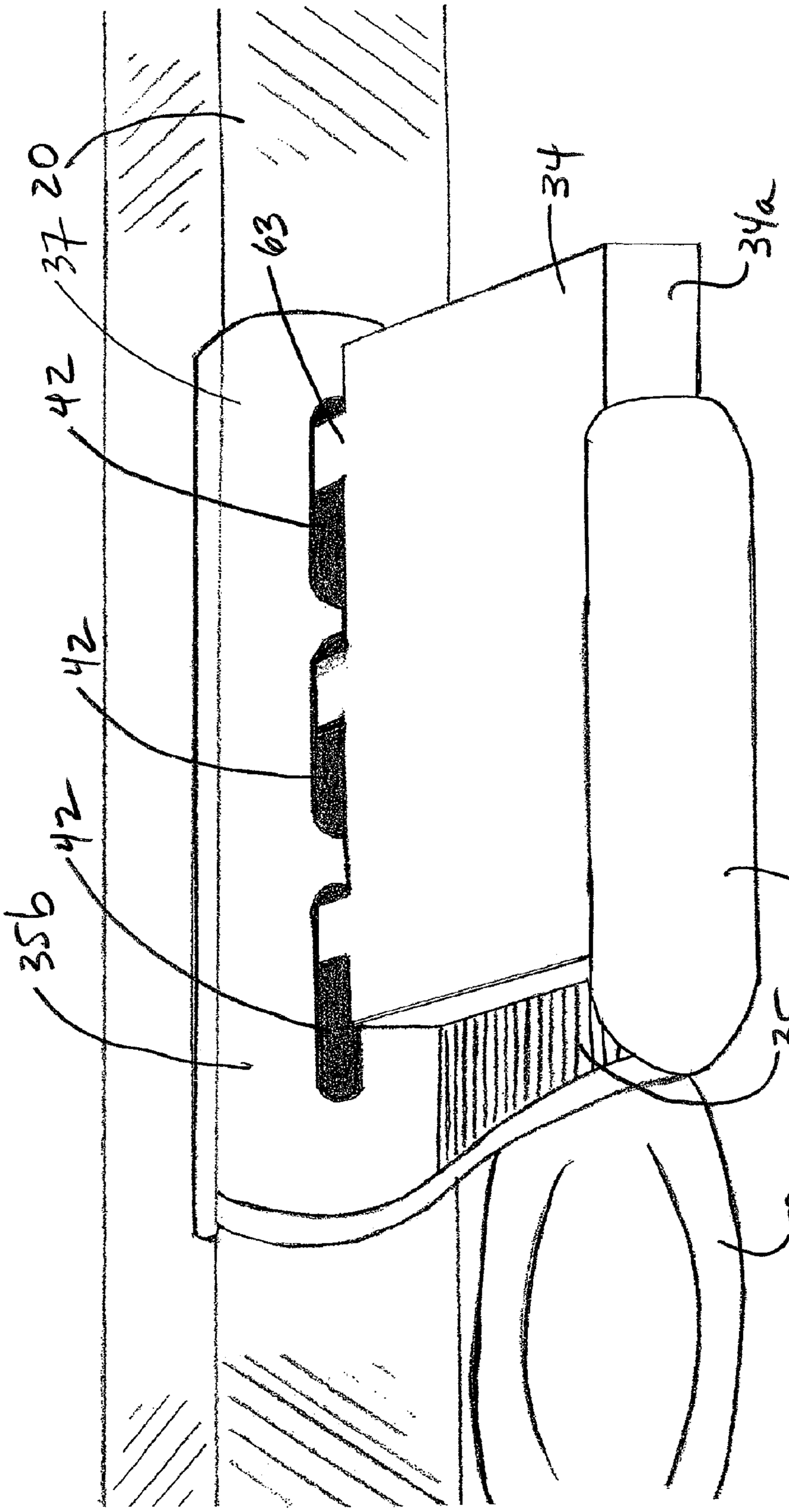


FIG. 10

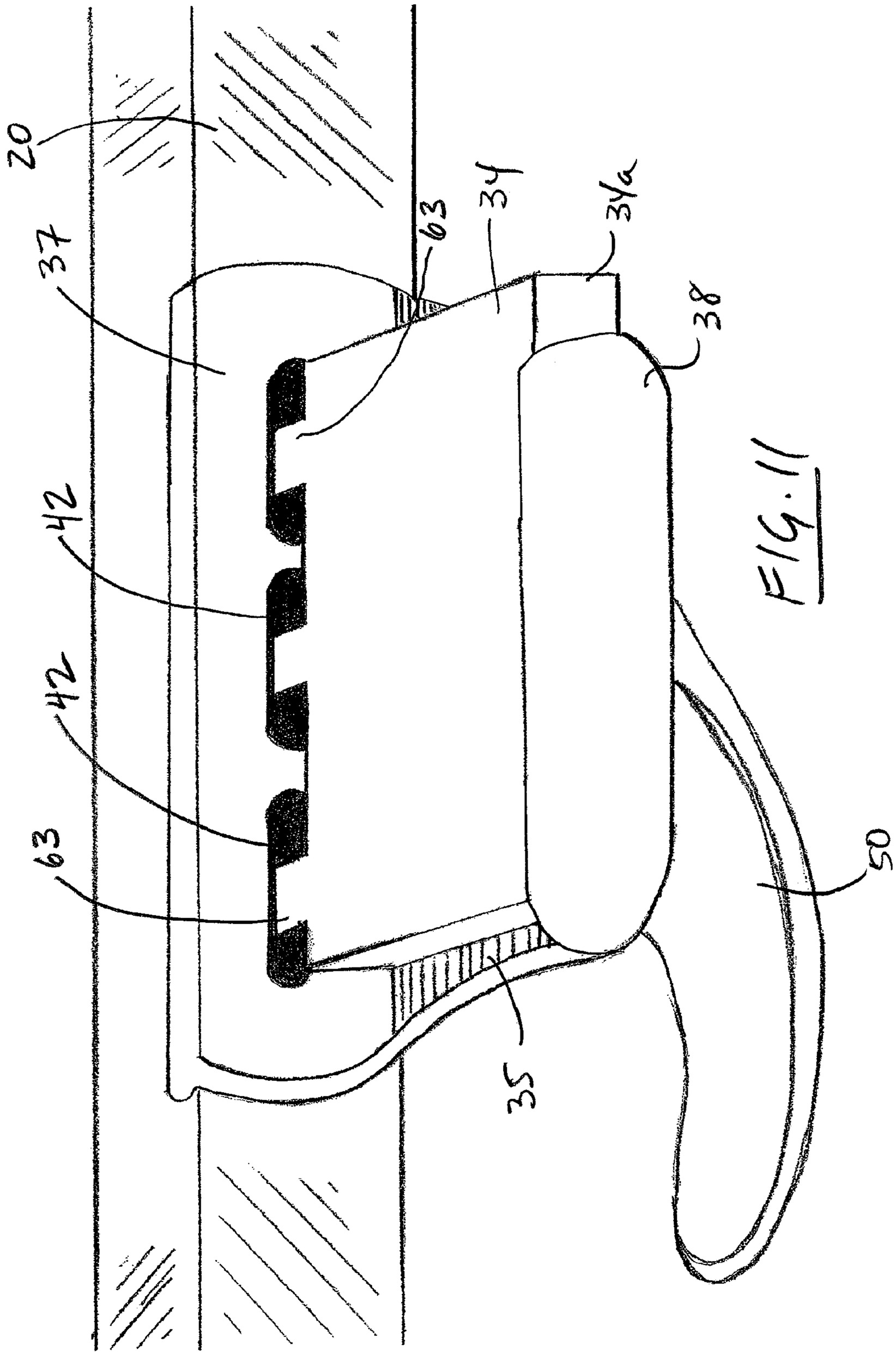


FIG. 11

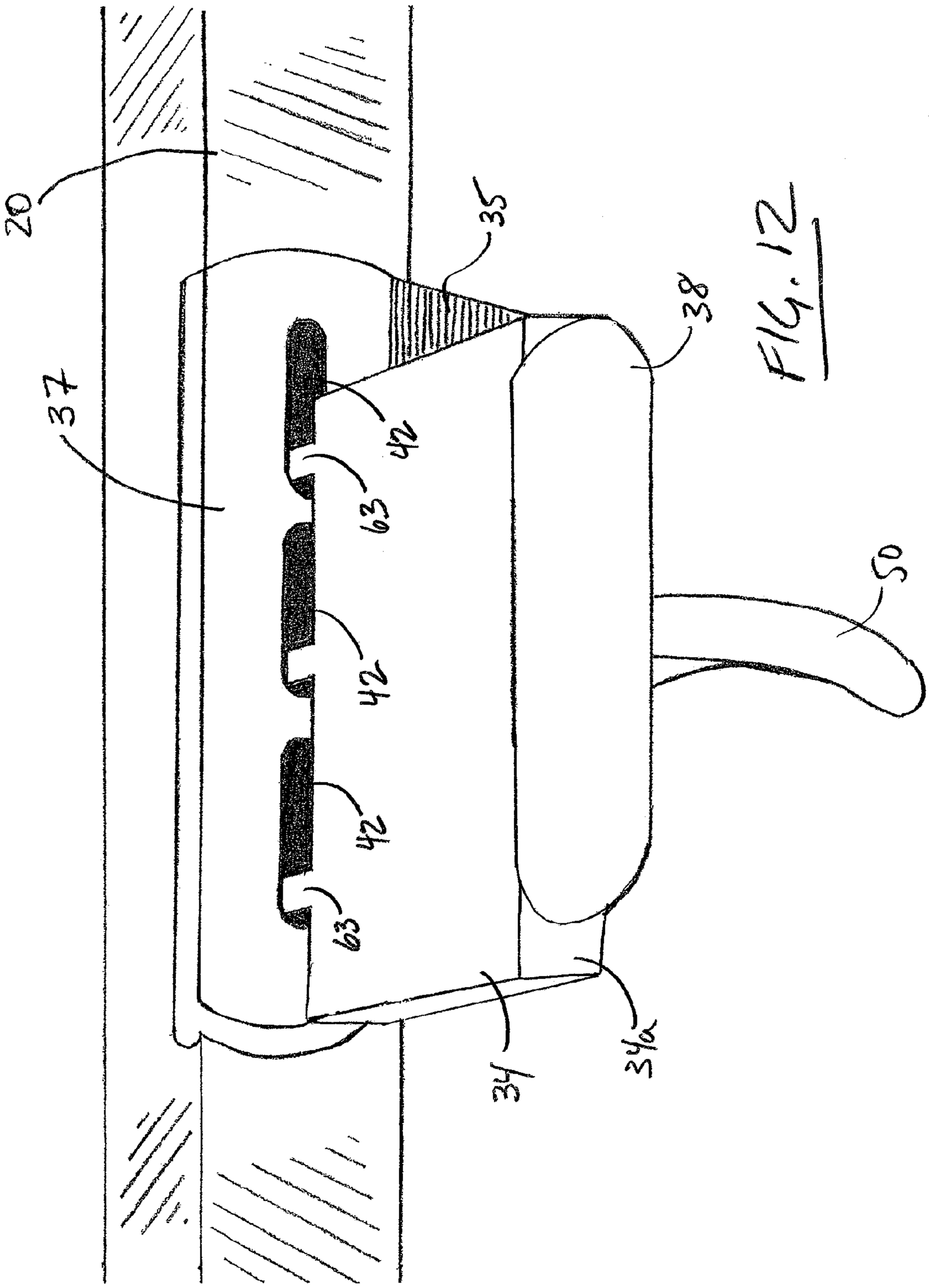


FIG. 12

# MANUALLY PROPELLED WATERCRAFT AND PROPULSION MECHANISM

## BACKGROUND OF THE INVENTION

The present invention relates generally to manually propelled personal watercraft devices and, more particularly, to watercraft devices that are manually propelled by the natural bipedal walking movement of a user.

Manually propelled watercraft devices, such as row boats, paddle boats and the like, are well-known. However, in all such devices, the user is generally in a seated position and thus must impart unnatural, device-specific movement to propel the boat, such as a rowing motion or paddle wheel motion with rotating pedals on a crank arm similar to a bicycle.

There have been some attempts to utilize cross-country skiing motion, while the user is in a substantially upright position in order to mimic a more natural movement, to propel a boat. However, it is often difficult for the user to maintain his balance or the device translating the cross-country skiing motion requires complicated mechanisms to propel the boat. For example, U.S. Pat. No. 5,194,023 discloses a recreational watercraft that can be propelled by a user performing a cross-country skiing action by simultaneously moving both his feet and arms in a well-known, cross-country skiing-like manner. However, the watercraft uses a complicated cable and pulley system in order to translate the cross-country skiing action into propulsion for the watercraft. Further, only one arm and foot combination can be used at a time, while the other arm and foot combination remain in a locked position towards the front of the craft.

## BRIEF SUMMARY OF THE INVENTION

The present application discloses a manually propelled personal watercraft that utilizes the natural bipedal walking or running motion of a user to propel the watercraft. As such, the user remains in a substantially upright, standing-like position while using the watercraft. In an embodiment, the watercraft includes a buoyant body with a track that slidably receives a vehicle that is adapted to be coupled to a user's foot. The vehicle is adapted to move to and from first and second positions relative to the body. A fin is pivotally coupled to a bottom side of the vehicle and is pivotable to and from an extended position that is inclined relative to the body and a retracted position that is substantially parallel to the body. When the vehicle is moved from the first position to the second position, the fin is pivoted from the retracted position to the extended position to maximize water resistance for propulsion of the watercraft. When the vehicle is moved from the second position to the first position, the fin is automatically pivoted to the retracted position in order to minimize water resistance.

In an embodiment, the watercraft includes two, substantially reciprocally identical track and vehicle combinations. As such, while one vehicle is moved from the first position to the second position, the other vehicle may be reciprocally moved from the second position to the first position, similar to a natural walking or running motion wherein one foot moves forwardly while the other foot moves rearwardly.



## BRIEF DESCRIPTION OF THE DRAWINGS

For the purpose of facilitating an understanding of the subject matter sought to be protected, there is illustrated in the accompanying drawing embodiments thereof, from an inspection of which, when considered in connection with the following description, the subject matter sought to be protected, its construction and operation, and many of its advantages, should be readily understood and appreciated.

FIG. **1** is a side elevational view of a watercraft of the present application.

FIG. **2** is an enlarged top view of the watercraft of FIG. **1**.

FIG. **3** is an enlarged bottom view of the watercraft of FIG. **1**.

FIG. **4** is an enlarged cross-sectional view of the watercraft of FIG. **2**, taken generally along line **4**—**4** in FIG. **2**, showing the fin disposed substantially in the extended position.

FIG. **5** is a view similar to FIG. **4**, but showing the fin disposed substantially in the retracted position.

FIG. **6** is an enlarged top view of an embodiment of the vehicle and fin of the present application, showing the fin disposed substantially in the retracted position.

FIG. **7** is a top view of the vehicle and fin of FIG. **6** with a portion broken away and the foot strap removed, and showing the fin disposed substantially in the retracted position and the upper platform disposed in the forward position.

FIG. **8** is a view similar to FIG. **7**, but showing the fin disposed between the extended and retracted positions and the upper platform between the forward and rearward positions.

FIG. **9** is a view similar to FIG. **7**, but showing the fin disposed substantially in the extended position and the upper platform disposed in the rearward position.

FIG. **10** is a reduced perspective side view of the vehicle and fin of FIG. **6**.

FIG. **11** is a view similar to FIG. **10**, but showing the fin disposed between the retracted and extended positions and the upper platform disposed between the rearward and forward positions.

FIG. **12** is a view similar to FIG. **10**, but showing the fin disposed substantially in the extended position and the upper platform disposed substantially in the rearward position.

## DETAILED DESCRIPTION

Referring to FIG. **1**, an embodiment of the manually propelled watercraft device, generally referred to as numeral **10**, is shown. In an embodiment, the watercraft is adapted to transport a user **11** on a body of water while the user **11** is preferably in a substantially upstanding position. The watercraft **10** may propel the user in any direction, preferably in a substantially forwardly direction, relative to the watercraft.

The watercraft includes a body **12** that is adapted to support the user **11**. In an embodiment, the body **12** may be buoyant. Body **12** has a longitudinal axis and a top side **13** adapted to support the user **11** and a bottom side **14** that is substantially adjacent to the surface of the water. In an embodiment, the body **12** includes a substantially upstanding handle bar **15** disposed on the top side **13** of the body **12**.

The handle bar **15** may be disposed in a position and sized such that it is easily grasped by the user **111** in a well-known manner and may include grip locations **15***a* (FIG. **2**). In another embodiment, the handle bar **15** may be arcuate in form. In yet another embodiment, a rudder structure **16** may be pivotally coupled to the bottom side **14** of the body **12** in a well-known manner for directional manipulation of the watercraft **10**. The rudder structure **16** may be operably coupled to a hand actuated rudder control mechanism disposed on the handle bar **15** adjacent to either or both of the grip locations **15***a* for manual actuation by the user **11**.

Referring also to FIGS. **2** and **3**, the body **12** may include a platform **17** that is adapted to support the user **11** while the user **11** mounts and dismounts the watercraft **10**. In an embodiment, the platform **17** may include a non-slip or grip-enhancing surface.

The body **12** includes a first track **20** disposed substantially parallel to the longitudinal axis of the body **12**. A first vehicle **30** is slidably coupled to the first track and is movable to and from first and second positions relative to the body **12**. The vehicle **30** includes a top side **31** and a bottom side **32** that is substantially adjacent to the surface of the water. The first position may correspond to a position disposed forwardly relative to the body **12**, and the second position may correspond to a position rearwardly relative to the body **12**. The top side **31** is adapted to be coupled to the user's foot **11***a* and may include a foot strap **33** to securely couple the user's foot **11***a*, as seen in FIG. **4**. In an embodiment, the top side **31** includes a non-slip or grip enhancing surface.

A first fin **50** is pivotally coupled to the bottom side **32** of the first vehicle **30**. The fin **50** is pivotable or movable to and from an extended position that is inclined relative to the longitudinal axis of the body **12** (as seen in FIG. **4**) and a retracted position that is substantially parallel to the longitudinal axis of the body **12** (as seen in FIG. **5**). When the first vehicle **30** is moved from the first position to the second position, the fin **50** is moved substantially to the extended position in order to maximize water resistance while the vehicle **30** and fin **50** are moved rearwardly to the second position, relative to the body **12**, thus causing a propulsion force that moves the watercraft **10** along a substantially forwardly directed vector. When the vehicle **30** is moved from the second position to the first position, the fin **50** is moved substantially to the retracted position to minimize water resistance while the vehicle **30** and fin **50** are moved forwardly, relative to the watercraft **10**, thus allowing the vehicle **30** and fin **50** to move to the first position while having minimal impact on the watercraft's **10** forwardly movement.

In an embodiment, the watercraft **10** includes a second track **30***a* that is substantially reciprocally identical in form and design as the first track **30**, and is disposed on the body **12** in substantial parallel relation to the first track **30**. A second vehicle **30***a* may be slidably coupled to the second track **30***a* and, substantially like the first vehicle **30**, is movable to and from first and second positions relative to the body **12** and has a top side **31***a* and a bottom side **32***a*. A second fin **50***a* is pivotally coupled to the bottom side **32***a* of the second vehicle **30***a*. The second fin **50***a*, substantially like the first fin **50**, is pivotable to and from an extended



position that is inclined relative to the longitudinal axis to maximize water resistance and a retracted position that is substantially parallel to the longitudinal axis to minimize water resistance. The top side **31***a*, like the top side **31** of the first vehicle **30**, is adapted to be coupled to the user's foot and may include a foot strap **33***a* to securely couple the user's foot **11***a* thereto.

In an embodiment, when the first vehicle **30** is moved from the first position to the second position, thus propelling the watercraft **10** in a substantially forwardly directed vector, the second vehicle may be reciprocally moved from the second position to the first position, thus mimicking a natural bi-pedal walking or running motion by the user **11**.

Accordingly, it will be appreciated that the form, construction and operation of the second track **20***a*, second vehicle **30***a* and second fin **50***a*, including their respective components, are substantially identical to that of the first track **20**, first vehicle **30** and first fin **50**. As such, it is to be understood that, while referring only to any one of the tracks, vehicles and fins, the other of the tracks, vehicles and fins has substantially the identical structure, form or construction, although not explicitly recited herein.

Referring to FIG. **4**, in an embodiment, the track **20** may include a channel **21**, having two transversely opposing sidewalls and a back wall.

Referring also to FIGS. **5**–**12**, the vehicle **30** may include an upper platform **34** and a lower platform **35** in substantially superimposed relation to each other. The upper platform **34** may have the foot strap **33** secured thereto for securely coupling the user's foot **11***a* to the vehicle **30**. The upper platform **34** has sides **34***a*, **34***b*, and the lower platform **35** has sides **35***a*, **35***b*. The upper platform **34** is slidable to and from a forward position, relative to the lower platform **35** (FIG. **10**), and a rearward position, relative to the lower platform **35** (FIG. **12**). The upper surface of the lower platform **35** and the bottom surface of the upper platform **34**, may include a slip-enhancing or friction-reducing material. When the upper platform **34** is disposed in substantially the forward position, relative to the lower platform **35**, the fin **50** is disposed substantially in the retracted position. (FIG. **10**). When the upper platform **34** is disposed substantially in the rearward position, the fin **50** is disposed substantially in the extended position. (FIG. **12**). Accordingly, when the upper platform **34** is moved from the forward position to the rearward position, the fin **50** is moved from the retracted position to the extended position. Likewise, when the upper platform **34** is moved from the rearward position to the forward position, the fin **50** is moved from the extended position to the retracted position.

The upper and lower platforms, **34**, **35**, may be substantially oblong in shape. As such, the upper platform **34** defines transversely opposing elongated outer edge **34***a* and inner edge **34***b*, and the lower platform defines transversely opposing elongated outer edge **35***a* and inner edge **35***b*, wherein the inner edges **34***a*, **35***a*, are disposed adjacent to the channel **21**. In an embodiment, the upper platform **34** may have a width that is slightly less than the width of the lower platform **35**. The lower platform **35** may include a guide **36**. The guide **36** includes an inner upstanding wall **37** disposed on the inner edge **35***b* of the lower platform **35**, and an outer upstanding wall **38** disposed on the outer edge **35***a*

of the lower platform **35**. Accordingly, the guide **36** is adapted to prevent lateral movement of the upper platform **34** relative to the lower platform **35**.

In an embodiment, the inner upstanding wall **37** includes an outwardly projecting axle **39** coupled to a wheel **40** that is adapted to be disposed within the channel **21**. In an embodiment, the inner upstanding wall **37** includes a plurality of outwardly projecting axles **39**, each coupled to a wheel **40**, wherein the wheels **40** are in substantial rotational alignment.

The lower platform **35** includes an aperture **41** disposed in substantially the middle thereof. The aperture **41** may be oblong, wherein the elongated sides of the aperture are disposed substantially laterally relative to the elongated sides of the upper and lower platforms **34**, **35**. The fin **50** is pivotally coupled to the bottom side of the upper platform and extends through the aperture **41**. The fin **50** may be pivotally coupled with, for example, a hinge or the like.

The forward peripheral edge **41***a* of the aperture abuts the fin **50** to cause the fin **50** to move from the extended position to the retracted position when the upper platform **34** moves from the rearward position to the forward position, relative to the lower platform **35**. When the upper platform **34** is disposed in the forward position, a continued forwardly directed force imparted to the upper platform **34**, from the user's foot **11***a*, causes the upper platform **34**, lower platform **35** and fin **50**, which is disposed in substantially the retracted position, to move unitarily towards the first position.

The rearward peripheral edge **41***b* of the aperture **41** abuts the fin **50** to cause the fin **50** to move from the retracted position to the extended position when the upper platform **34** moves from the forward position to the rearward position, relative to the lower platform **35**. When the upper platform **34** is disposed in the rearward position, a continued rearwardly directed force imparted to the upper platform **34**, from the user's foot **11***a*, causes the upper platform **34**, lower platform **35** and fin **50**, which is disposed in substantially the extended position, to move unitarily towards the second position, thus propelling the watercraft **10** along a substantially forwardly directed vector, due to water resistance caused by the fin **50**.

The vehicle **30** may include a detent structure **60** for detentable engagement with the channel **21**. The detent mechanism **60** may be coupled to the inner upstanding wall **37** of the lower platform **35** and is operably coupled to the upper platform **34**. The detent structure **60** is releasable when the upper platform **34** is disposed substantially in either the forward position or the rearward position, relative to the lower platform **35**. (FIGS. **7** and **9**). The detent mechanism **60** is engageable, thus detentably detaining the position of the lower platform **35** relative to the channel **21**, when the upper platform **34** is moved or disposed between the forward and rearward positions. (FIG. **8**). Accordingly, the detent mechanism **60** temporarily detains the position of the lower platform **35**, relative to the channel **21**, while the fin **50** is moved from the extended position to the retracted position or while the fin **50** is moved from the retracted position to the extended position, caused by the relative movement between the upper and lower platforms **34**, **35**. Further, when the upper platform **34** is disposed in either the forward or rearward positions, the detent structure **60** is released, thus allowing unitary movement of the upper platform **34**, lower platform **35** and fin **50** along channel **21**.

Accordingly, while the upper platform **34** is moved from the forward position to the rearward position, via a rearwardly directed force from the user's foot **11***a*, the detent mechanism **60** detains the position of the lower platform **35** so that the fin **50** is moved from the retracted position to the extended position. When the upper platform **34** is disposed in the rearward position, with the fin **50** disposed substantially in the extended position, the detent mechanism **60** is released and, with a continued rearwardly directed force applied to the upper platform **34**, the upper platform **34**, lower platform **35** and fin **50**, disposed in the extended position, move unitarily rearwardly, from the first position towards the second position, thus propelling the watercraft **10**, until the lower platform **35** reaches the rearward terminus of the channel **21**.

Likewise, while the upper platform **34** is moved from the rearward position to the forward position, via a forwardly directed force, from the user's foot **11***a*, the detent mechanism **60** is engaged and detains the position of the lower platform **35** so that fin **50** is moved from the extended position to the retracted position. When the upper platform **34** is disposed in the forward position, with the fin **50** disposed substantially in the retracted position, the detent mechanism **60** is released and, with a continued forwardly directed force applied to the upper platform **34**, the upper platform **34**, lower platform **35**, and fin **50**, disposed in the retracted position, move unitarily forwardly from the second position to the first position, with minimal affect upon the watercraft's **10** forward propulsion due to the retracted position of the fin **50**, until the lower platform **35** reaches the forward terminus of the channel **21**.

In an embodiment, the detent mechanism **60** includes a spring actuated frictional braking mechanism **61**, such as that disclosed in copending patent application Ser. No. 10/905,257, titled Frictional Brake Mechanism, and filed on Dec. 22, 2004, which is commonly assigned with the present application and which is incorporated herein by reference. The braking mechanism **61** has a brake pad **62** for frictional engagement with the wall of the channel **21** and which is movable to and from braking and non-braking conditions. The braking mechanism **61** is operably coupled to the upper platform **34** with outwardly projecting tang **63**, which is integrally coupled with the upper platform **34**, adjacent to the inner edge **34***b*, and which extends through oblong lug aperture **42** disposed on the upstanding inner wall **37** of the lower platform **35**. In an embodiment, tang **63** is equivalent to the tang structure disclosed in patent application Ser. No. 10/905,257. The oblong aperture **42** is substantially aligned with the braking mechanism **61** in order to effectuate activation and deactivation of the braking mechanism **61** via tang **63**, based upon the position of the upper platform **34** relative to the lower platform **35**.

A method of propelling a watercraft in a substantially forwardly direction is also disclosed. The method includes providing a vehicle that is slidably coupled to the watercraft and movable to and from first and second positions relative to the watercraft, providing a fin pivotally coupled to the

vehicle and pivotable to and from an extended position that is inclined relative to the watercraft when the vehicle is moved from the first position to the second position and a retracted position that is substantially parallel to the watercraft when the vehicle is moved from the second position to the first position, and moving the vehicle from the first position to the second position, thus imparting a forwardly directed propulsion force to the watercraft.

A alternate method of propelling a watercraft includes providing at least two vehicles that are slidably coupled to the watercraft in substantial parallel relation to each other and each being moveable to and from first and second positions relative to the watercraft, providing fins that are respectively pivotally coupled to each vehicle, each fin being pivotable to and from an extended position that is inclined relative to the watercraft when the respective vehicle is moved from the first position to the second position and a retracted position that is substantially parallel to the watercraft when the respective vehicle is moved from the second position to the first position, moving one of the vehicles from the first position to the second position while reciprocally moving the other of the vehicles from the second position to the first position, thus imparting a forwardly directed propulsion force to the watercraft.

The matter set forth in the foregoing description and accompanying drawings is offered by way of illustration only and not as a limitation. While particular embodiments have been shown and described, it will be apparent to those skilled in the art that changes and modifications may be made without departing from the broader aspects of applicants' contribution. The actual scope of the protection sought is intended to be defined in the following claims when viewed in their proper perspective based on the prior art.

What is claimed is:

**1**. A manually propelled watercraft for transporting a user on water, comprising:

a buoyant body having a longitudinal axis and a top side and a bottom side disposed adjacent to the water;

a first track disposed on the body substantially parallel to the longitudinal axis;

a second track disposed on the body in substantial parallel relation to the first track;

a first vehicle slidably coupled to the first track and movable to and from first and second positions relative to the body, the first vehicle includes upper and lower platforms disposed in substantially superimposed relation to each other, each platform having sides and the upper platform being slidable to and from forward and rearward positions relative to the lower platform;

a second vehicle slidably coupled to the second track and movable to and from the first and second positions;

a first fin pivotally coupled to a bottom side of the first vehicle and being pivotable to and from an extended position that is inclined relative to the longitudinal axis and a retracted position that is substantially parallel to the longitudinal axis, wherein when the upper platform is disposed in the forward position, the fin is substantially disposed in the retracted position, and when the upper platform is disposed in the rearward position, the fin is substantially disposed in the extended position; and

a second fin pivotally coupled to a bottom side of the second vehicle and being pivotable to and from an extended position that is inclined relative to the longitudinal axis to maximize water resistance for propulsion of the body and a retracted position that is substantially parallel to the longitudinal axis to minimize water resistance;

wherein when the first vehicle is moved from the first position to the second position, the first fin is substantially disposed in the extended position to maximize water resistance for propulsion of the body, and when the first vehicle is moved from the second position to the first position, the first fin is substantially disposed in the retracted position to minimize water resistance.

**2**. The watercraft as claimed in claim **1** wherein the first track includes a first channel.

**3**. The watercraft as claimed in claim **1** wherein the upper and lower platforms are substantially oblong and respectively define transversely opposing elongated inner and outer edges, the inner edge being adjacent to the channel.

**4**. The watercraft as claimed in claim **3** wherein the upper platform has a width that is narrower than a width of the lower platform and the lower platform includes a guide having an inner upstanding wall disposed on the inner edge of the lower platform and an outer upstanding wall transversely disposed on the outer edge of the lower platform.

**5**. The watercraft as claimed in claim **2** wherein the inner wall includes at least one wheel slidably disposed within the channel.

**6**. The watercraft as claimed in claim **1** wherein the upper platform includes a foot strap for securing a foot of the user to the upper platform.

**7**. The watercraft as claimed in claim **1** wherein the lower platform includes an aperture disposed substantially in a middle thereof.

**8**. The watercraft as claimed in claim **7** wherein the aperture is oblong.

**9**. The watercraft as claimed in claim **8** wherein the first fin is pivotally coupled to a bottom side of the upper platform and extends through the aperture, wherein a peripheral edge of the aperture abuts the first fin to cause the first fin to pivot from the extended position to the retracted position when the upper platform moves from the rearward position to the forward position and the peripheral edge abuts the first fin to cause the first fin to pivot from the retracted position to the extended position when the upper platform moves from the forward position to the rearward position.

**10**. The watercraft as claimed in claim **9** wherein the first vehicle includes a detent mechanism for detentable engagement with the first track, the detent mechanism being releasable when the upper platform is disposed substantially in either of the forward position or the rearward position and engageable when the upper platform is disposed between the forward and rearward positions.

**11**. The watercraft as claimed in claim **10** wherein the detent mechanism includes a spring actuated frictional braking mechanism having a brake pad for frictional engagement with a wall of the first track and being movable to and from braking and non-braking conditions.

**12**. The watercraft as claimed in claim **11** wherein the brake pad is biased outwardly to the braking condition with a biasing structure.

**13**. The watercraft as claimed in claim **1** further comprising a substantially upstanding handle bar disposed on the top side of the body, the handle bar being disposed in a position and sized for grasping by the user.

14. The watercraft as claimed in claim 13 further comprising a hand actuated rudder control mechanism disposed on the handle bar and being operably coupled to a rudder structure disposed on the bottom of the body.

15. A manually propelled watercraft for transporting a user along a body of water while the user is in a substantially upright position, comprising:

a buoyant body having a longitudinal axis; and

a means for propelling the body in a substantially forwardly directed vector, wherein the means for propelling the body includes a track disposed on the body substantially parallel to the longitudinal axis, a vehicle slidably coupled to the track and movable to and from first and second positions relative to the body, a fin pivotally coupled to a bottom side of the vehicle and being pivotable to and from an extended position that is inclined relative to the longitudinal axis and a retracted position that is substantially parallel to the longitudinal axis, and a means for pivoting the fin to and from the extended and retracted positions, wherein the means for pivoting the fin to and from the extended and retracted positions includes an upper platform and a lower platform having an aperture in a middle thereof, the upper and lower platforms being disposed on the vehicle in substantial superimposed relation to each other, the upper platform being slidable to and from forward and rearward positions relative to the lower platform, the fin being pivotally coupled to a bottom side of the upper platform and extends through the aperture, wherein a peripheral edge of the aperture abuts the fin to pivot the fin from the extended position to the retracted position when the upper platform moves from the rearward position to the forward position and the peripheral edge abuts the fin to pivot the fin from the retracted position to the extended position when the upper platform moves from the forward position to the rearward position.

16. The watercraft as claimed in claim 15 wherein the means for pivoting the fin to and from the extended and retracted positions includes a detent mechanism for engagement with the channel, the detent mechanism being releasable when the upper platform is disposed substantially in either of the forward position or the rearward position and engageable when the upper platform is disposed between the forward and rearward positions.

17. A manually propelled watercraft for transporting a user along a body of water while the user is in a substantially upright position, comprising:

a buoyant body having a longitudinal axis;

a channel disposed on the body substantially parallel to the longitudinal axis;

a vehicle slidably coupled to the channel and being movable to and from first and second positions relative to the body;

a fin pivotally coupled to the vehicle and being pivotable to and from an extended position that is inclined relative to the longitudinal axis and a retracted position that is substantially parallel to the longitudinal axis; and

a means for pivoting the fin to and from the extended and retracted positions, wherein the means for pivoting the fin to and from the extended and retracted positions includes an upper platform and a lower platform having an aperture in a middle thereof, the upper and lower platforms being disposed on the vehicle in substantial superimposed relation to each other, the upper platform being slidable to and from forward and rearward positions relative to the lower platform, the fin being pivotally coupled to a bottom side of the upper platform and extends through aperture, wherein a peripheral edge of the aperture abuts the fin to pivot the fin from the extended position to the retracted position when the upper platform moves from the rearward position to the forward position and the peripheral edge abuts the fin to pivot the fin from the retracted position to the extended position when the upper platform moves from the forward position to the rearward position.

18. The watercraft as claimed in claim 17 wherein the means for pivoting the fin to and from the extended and retracted position includes a detent mechanism for detentable engagement with the channel, the detent mechanism being releasable when the upper platform is disposed substantially in either of the forward position or the rearward position and engageable when the upper platform is disposed between the forward and rearward positions.

19. A manually propelled watercraft for transporting a user along a body of water while the user is in a substantially upright position, comprising:

a buoyant body having a longitudinal axis and a top side and a bottom side disposed adjacent to the water;

a track disposed on the body substantially parallel to the longitudinal axis;

a vehicle slidably coupled to the track and movable to and from a first position disposed forwardly relative to the body and a second position disposed rearwardly relative to the body and including upper and lower platforms disposed in substantially superimposed relation to each other, the upper platform being slidable to and from forward and rearward positions relative to the lower platform, the lower platform includes an aperture disposed substantially in a middle thereof; and

a fin pivotally coupled to a bottom side of the upper platform and extending through the aperture, wherein when the upper platform is moved from the rearward to the forward position, a peripheral edge of the aperture abuts the fin to cause the fin to pivot from an extended position that is inclined relative to the longitudinal axis to maximize water resistance to a retracted position that is substantially parallel to the longitudinal axis to minimize water resistance, and when the upper platform is moved from the forward position to the rearward position, the peripheral edge abuts the fin to cause the fin to pivot from the retracted position to the extended position.

20. The watercraft as claimed in claim 19 further comprising a detent mechanism for detentable engagement with the track, the detent mechanism being releasable when the upper platform is disposed substantially in either of the forward position or the rearward position and engageable when the upper platform is disposed between the forward and rearward positions.

21. A propulsion mechanism for a watercraft having a longitudinal axis, comprising

a vehicle slidably coupled to the watercraft and movable to and from first and second positions relative to the watercraft, the vehicle includes upper and lower platforms disposed in substantial superimposed relation to each other, the upper platform being slidable to and from forward and rearward positions relative to the lower platform; and

a fin pivotally coupled to the vehicle and pivotable to and from an extended position that is inclined relative to the longitudinal axis and a retracted position that is substantially parallel to the longitudinal axis;

wherein when the vehicle is moved from the first position to the second position, the fin is substantially disposed in the extended position to maximize water resistance for substantial forward propulsion of the watercraft, and when the vehicle is moved from the second position to the first position, the fin is substantially disposed in the retracted position to minimize water resistance.

**22**. The propulsion mechanism in claim **21** wherein the lower platform includes an aperture disposed substantially in a middle thereof.

**23**. The propulsion mechanism as claimed in claim **22** wherein the fin is pivotally coupled to a bottom side of the upper platform and extends through the aperture, wherein a peripheral edge of the aperture abuts the fin to cause the fin to pivot from the extended position to the retracted position when the upper platform moves from the rearward position to the forward position, and the peripheral edge abuts the fin to cause the fin to pivot from the retracted position to the extended position when the upper platform moves from the forward position to the rearward position.

**24**. The propulsion mechanism as claimed in claim **23** wherein the vehicle includes a detent mechanism for detentable engagement with the watercraft, the detent mechanism being releasable when the upper platform is disposed in either of the forward position or the rearward position and engageable when the upper platform is disposed between the forward and rearward positions.

**25**. A method of propelling a watercraft, comprising:

providing at least two vehicles that are slidably coupled to the watercraft in substantial parallel relation to each other and each being independently moveable to and from first and second positions relative to the watercraft;

providing fins that are respectively pivotally coupled to each vehicle, each fin being pivotable to and from an extended position that is inclined relative to the watercraft when the respective vehicle is moved from the first position to the second position and a retracted position that is substantially parallel to the watercraft when the respective vehicle is moved from the second position to the first position; and

moving one of the vehicles from the first position to the second position while reciprocally moving the other of the vehicles from the second position to the first position.

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