WHAT IS CLAIMED IS:

1. An assembly comprising:

(1) a float;

(2) a wave-actuated component; and

(3) a closure component having a first state in which it secures the float and the wave-actuated component together as an assembly that can be moved as a unit and a second state that permits the wave-actuated component to move away from the float;

the assembly being configured to accept a tether having a first end connected to the float and a second end connected to the wave-actuated component, such that when the closure component is in the second state and the assembly includes such a tether, the float, the tether, and the wave-actuated component form a wave-powered device (WPD) wherein

(A) when the float is placed on or near the surface of still water, the WPD has

(a) the float floating on or near the surface of the still water,

(b) the tether extending downwards from the float and under tension, and

(c) the wave-actuated component being submerged below the float, and

(B) when the float is placed on or near the surface of wave-bearing water, the WPD has

(a) the float floating on or near the surface of the wave-bearing water,

(b) the tether extending downwards from the float, and

(c) the wave-actuated component being submerged below the float, and interacting with the water to generate forces that are transmitted to the tether.

2. The assembly of claim 1 that is configured as a WPD including a tether having a first end attached to the float and a second end attached to the wave-actuated component.

3. The assembly of claim 1 or 2 wherein the float has a generally rectangular shape when viewed in plane.

4. The assembly of claim 3 wherein the float has a length of 6-30 feet, e.g., 8-20 feet, and the width of 1.5-6 feet, e.g., 2-4 feet.

5. The assembly of any of claims 1 through 4 wherein the float has top, bottom, and side surfaces, and comprises float side components that extend downwards generally parallel to the side surfaces to create a space defined by the bottom surface and the float side components, and the wave-actuated component is at least partially within that space.

6. The assembly of any of claims 1 through 5 wherein the wave-actuated component comprises components that extend upwards from the wave-actuated component and that interact with components of the float to locate the wave-actuated component in a fixed position in relation to the float, and/or the float comprises components that extend downwards and that interact with components of the wave-actuated component to locate the wave-actuated component in a fixed position in relation to the float.

7. The assembly of any of claims 1 through 6 wherein:

the wave-actuated component comprises fins that, when the assembly is in the form of a WPD and is in wave-bearing water, rotate about an axis to generate the forces that are transmitted to the tether; and

the wave-actuated component includes members that extend downwards from the wave-actuated component and that, when the closure component is in the first state and the assembly is placed on a horizontal surface, separate the fins from the horizontal surface.

8. The assembly of any of claims 1 through 7 wherein the closure component is a mechanical clip.

9. The assembly of any of claims 1 through 7 wherein the closure component is a strap.

10. The assembly of any of claims 1 through 9 wherein the closure component can be changed from the first state to the second state manually.

11. The assembly of any of claims 1 through 9 wherein the closure component can be changed from the first state to the second state by a signal, for example an electrical signal or a radio signal.

12. The assembly of any of claims 1 through 11, and further comprising at least one pickup member on the upper surface of the float which, when the closure component is in the first state, can be used to lift the assembly as a unit, for example manually and/or by a crane or other lifting device.

13. The assembly of any of claims 1 through 12 which comprises a flexible tether, the tether having a first end connected to the float and a second end connected to the wave-actuated component.

14. The assembly of claim 13 wherein the float comprises a winch to which the first end of the tether is connected.

15. The assembly of claim 14 wherein the winch comprises wiping elements that clean the tether when the tether is drawn through the winch.

16. The assembly of claim 14 or 15 wherein the winch is hinged in the pitch axis.

17. The assembly of any of claims 14 through 16 wherein the float comprises a first winch that is relatively close to the fore end of the float and a first tether attached to the first winch, and a second winch that is relatively close to the aft end of the float and a second tether attached to the second winch.

18. The assembly of claim 13 wherein the tether is hinged in the pitch axis.

19. The assembly of any of claims 1 through 18 which comprises a flexible tether having at least one of the following characteristics:

(1) the tether has a substantially flat configuration, for example with an average thickness of 1-3 mm;

(2) the tether is free from components that carry electrical currents and/or is free from components that carry signals of any kind;

(3) the tether comprises a plurality of round tensile members;

(4) the tether is a flat webbing constructed of a synthetic polymer, e.g., a polyamide, Spectran, Vectran, or Kevlar;

(5) the tether is a flat webbing that is tensioned only along the leading edge thereof, thus reducing fluttering and bowing;

(6) the tether is attached to the float at a hinge point that comprises a shaft and bushing arrangement such that the tether is not required to flex against its wide axis (pitch);

(7) at the float, the tether is guided through a 90° twist, and then flexes in the pitch axis over a pulley with its axis level and perpendicular to the longitudinal axis of the float;

(8) at the float, the tether is guided through a 90° twist, and then flexes in the pitch axis over a pulley with its axis level and perpendicular to the longitudinal axis of the float, wherein the pulley is crowned to increase the tension on the center of the tether to lessen the effect of the the 90° twist increasing the tension of the outer parts of the tether, relative to the center of the tether.

20. The assembly of any of claims 1 through 19 wherein the wave-actuated component comprises at least one substantially rigid spine having fins secured thereto, and the substantially rigid spine is connected directly or indirectly to the tether.

21. The assembly of claim 20 wherein the connection between the substantially rigid spine and the tether can vary from a rest position, the variation being controlled by for example a spring mechanism.

22. The assembly of claim 20 or 21 wherein the wave-actuated component is selected from one of the following two configurations:

(A) the wave-actuated component has a single substantially rigid spine, with fins extending on each side of the rigid spine, and when the WPD is in still water and the tether is in an extended position below the float, the rigid spine is at an angle of at most 40°, or at most 30°, or at most 15°, to the horizontal, e.g., substantially horizontal, and lies in a vertical plane that passes through the longitudinal axis of the float; or

(B) the wave-actuated component has two substantially rigid spines, with fins extending between the rigid spines, and both the rigid spines, when the WPD is in still water and the tether is in an extended position below the float, both rigid spines lie in a plane at an angle of at most 40°, or at most 30°, or at most 15°, to the horizontal, e.g., substantially horizontal, and the rigid spines are equally spaced from a vertical plane that passes through the longitudinal axis of the float.

23. The assembly of claim 22 wherein, when the assembly is in the form of a WPD and is in still water, the fins lie side-by-side in a plane that is at an angle of at most 30° or at most 15°, to the horizontal, e.g., a substantially horizontal plane.

24. The assembly of any of claims 19 through 23 wherein the wave-actuated component comprises springs or other elastic components that return the fins to a neutral position.

25. The assembly of claim 24 wherein the rotation of the fins, when the WPD is in wave-carrying water, is primarily controlled by a first spring when the rotation of the fins is within a first range about the neutral position and is primarily controlled by a second spring when the rotation of the fins is in a second range outside the first range, the second spring being stiffer than the first spring.

26. The assembly of any of claims 1 through 25 wherein the wave-actuated component is a swimmer as disclosed in any of the applications, patents, and publications incorporated by reference herein.

27. The assembly of any of claims 1 through 26 wherein the float comprises a rudder or other steering means near the aft end of the float.

28. The assembly of any of claims 1 through 27, and further comprising

(1) wireless communications equipment;

(2) a computer system;

(3) a satellite-referenced position sensor

(4) a horizontal direction sensor that senses direction in a horizontal plane; and

(5) a steering actuator;

the computer system

(a) being linked to the communications equipment, the position sensor, the horizontal sensor and the steering actuator, and

(b) containing, or being programmable to contain, instructions to control the steering actuator in response to signals received from the communications equipment, or from the position sensor and the horizontal direction sensor, or from signals received from another sensor on the vehicle.

29. The assembly of any of claims 1 through 28 wherein the float is as described in any of the applications, publications, and patents incorporated by reference herein.

30. A float having top, bottom, and side surfaces, the float comprising float side components that extend downwards generally parallel to the side surfaces to create a space defined by the bottom surface and the float side components.

31. The assembly of claim 30 wherein the float has a generally rectangular shape when viewed in plane.

32. The assembly of claim 30 or 31 wherein the float has a length of 6-30 feet, e.g., 8-20 feet, and the width of 1.5-6 feet, e.g., 2-4 feet.

33. A wave-actuated component that comprises components that extend upwards from the wave-actuated component and that will interact with a float to register the wave-actuated component in relation to the float.

34. A wave-actuated component that comprises components that extend downwards from the wave-actuated component, and when the wave-actuated component is placed upon a horizontal surface, the components that extend downwards separate the horizontal surface from any part of the wave-actuated component that might otherwise be damaged by contact with the surface.

35. The wave-actuated component of claim 33 or 34 wherein the wave-actuated component comprises at least one substantially rigid spine having fins secured thereto, and the substantially rigid spine is connected directly or indirectly to the tether.

36. The wave-actuated component of claim 35 wherein the connection between the substantially rigid spine and the tether can vary from a rest position, the variation being controlled by for example a spring mechanism.

37. The wave-actuated component of claim 36 wherein the wave-actuated component is selected from one of the following two configurations:

(A) the wave-actuated component has a single substantially rigid spine, with fins extending on each side of the rigid spine, and when the wave-actuated component is combined with a tether and a float in the form of a WPD and the WPD is in still water and the tether is in an extended position below the float, the rigid spine is at an angle of at most 40°, or at most 30°, or at most 15°, to the horizontal, e.g., substantially horizontal, and lies in a vertical plane that passes through the longitudinal axis of the float; or

(B) the wave-actuated component has two substantially rigid spines, with fins extending between the rigid spines, and both the rigid spines, when the wave-actuated component is combined with a tether and a float in the form of a WPD and the WPD is in still water and the tether is in an extended position below the float, both rigid spines lie in a plane at an angle of at most 40°, or at most 30°, or at most 15°, to the horizontal, e.g., substantially

horizontal, and the rigid spines are equally spaced from a vertical plane that passes through the longitudinal axis of the float.

38. The wave-actuated component of claim 37 wherein, when the wave-actuated component is combined with a tether and a float in the form of a WPD and the WPD is in still water, the fins lie side-by-side in a plane that is at an angle of at most 30° or at most 15°, to the horizontal, e.g., a substantially horizontal plane.

39. The wave-actuated component of any of claims 35 to 38 wherein the wave-actuated component comprises springs or other elastic components that return the fins to a neutral position.

40. The wave-actuated component of claim 39 wherein the rotation of the fins, when the wave-actuated component is combined with a tether and a float in the form of a WPD and the WPD is in wave-carrying water, is primarily controlled by a first spring when the rotation of the fins is within a first range about the neutral position and is primarily controlled by a second spring when the rotation of the fins is in a second range outside the first range, the second spring being stiffer than the first spring.

41. The wave-actuated component of any of claims 34 to 40 wherein the wave-actuated component is a swimmer as disclosed in any of the applications, patents, and publications incorporated by reference herein.

42. A wave-powered device comprising:

(1) a float;

(2) a flexible tether; and

(3) a wave-actuated component, the tether connecting the float and the wave-actuated component;

the float, the tether, and the wave-actuated component being such that

(A) when the device is in still water, (i) the float is on or near the surface of the water, (ii) the wave-actuated component is submerged below the float, and (iii) the tether is under tension; and

(B) when the device is in wave-bearing water, the wave-actuated component interacts with the water to generate forces that are transmitted to the tether;

wherein the float comprises a winch that can be operated to change the length of the tether.

43. The assembly of claim 42 wherein the winch comprises wiping elements that clean the tether when the tether is drawn through the winch.

44. The assembly of claim 42 or 43 wherein the winch is hinged in the pitch axis.

45. A wave-powered device comprising:

(1) a float;

(2) a flexible tether; and

(3) a wave-actuated component, the tether connecting the float and the wave-actuated component

the float, the tether, and the wave-actuated component being such that

(A) when the device is in still water, (i) the float is on or near the surface of the water, (ii) the wave-actuated component is submerged below the float, and (iii) the tether is under tension; and

(B) when the device is in wave-bearing water, the wave-actuated component interacts with the water to generate forces that are transmitted to the tether;

wherein the tether has at least one of the following characteristics:

(1) the tether has a substantially flat configuration, for example with an average thickness of 1-3 mm;

(2) the tether is free from components that carry electrical currents and/or is free from components that carry signals of any kind;

(3) the tether comprises a plurality of round tensile members;

(4) the tether is a flat webbing constructed of a synthetic polymer, e.g., a polyamide, Spectran, Vectran, or Kevlar;

(5) the tether is a flat webbing that is tensioned only along the leading edge thereof, thus reducing fluttering and bowing;

(6) the tether is attached to the float at a hinge point that comprises a shaft and bushing arrangement such that the tether is not required to flex against its wide axis (pitch);

(7) at the float, the tether is guided through a 90° twist, and then flexes in the pitch axis over a pulley with its axis level and perpendicular to the longitudinal axis of the float;

(8) at the float, the tether is guided through a 90° twist, and then flexes in the pitch axis over a pulley with its axis level and perpendicular to the

longitudinal axis of the float, wherein the pulley is crowned to increase the tension on the center of the tether to lessen the effect of the the 90° twist increasing the tension of the outer parts of the tether, relative to the center of the tether.

46. The assembly of claim 45 wherein the float comprises a winch to which a first end of the tether is connected.

47. The assembly of claim 46 wherein the winch comprises wiping elements that clean the tether when the tether is drawn through the winch.

48. The assembly of claim 46 or 47 wherein the winch is hinged in the pitch axis.

49. A fin system for use in a wave powered device of any kind, including the wave-powered devices disclosed in the documents incorporated by reference herein, the fin system having

at least one fin that rotates about an axis and that has a neutral position, and

a control system for controlling the rotation of the fin,

the control system comprising:

a first means that controls the rotation of the fin within a first range about a neutral position; and

a second means that controls the rotation of the fin when the movement of the fins is outside the first range.

50. The fin system of claim 49 wherein wherein the second means makes it more difficult for the fin to rotate within the second range than it is for the fin to rotate within the first range.

51. The fin system of claim 49 or 50 wherein the rotation within the first range is controlled solely by the first means.

52. The fin system of any of claims 49 through 51 wherein the rotation within the first range is controlled both by the first means and by the second means.

53. The fin system of any of claims 49 through 52 wherein the rotation within the first range is controlled solely by the second means.

54. The fin system of any of claims 49 through 53 wherein the rotation within the second range is controlled both by the first means and by the second means.

55. The fin system of any of claims 49 through 54 wherein one or both of the first and second means is a spring.

56. The fin system of any of claims 49 through 55, and further including a stop that prevents the first spring from moving beyond a first limit.

57. The fin system of any of claims 49 through 56, and further including a stop that prevents the second spring from moving beyond a second limit, and thus prevents the fin from moving outside the second range.

58. The fin system of any of claims 49 through 57 wherein:

the first means includes a first spring;

a second means includes a second spring;

the angular movement of the fin is primarily controlled by the first spring when the movement of the fin is within a first range about a neutral position; and

the angular movement of the fin is primarily controlled by the second spring or other means when the movement of the fins is within a second range that is outside the first range, the second spring being stiffer than the first spring, thus making it more difficult for the fins to move within the second range.

59. A method of obtaining information, the method comprising receiving signals from, or recorded by, any of:

a wave-powered device that comprises the assembly of claim 1, or

the wave-powered device of claim 42 or 45, or

a device that comprises the float of claim 30, or

a device that comprises the wave-actuated component of claim 33 or 34, or

a device that comprises the fin system of claim 49.

60. A method for controlling a function of any of:

a wave-powered device that comprises the assembly of claim 1,

or the wave-powered device of claim 42 or 45, or

a device that comprises the float of claim 30, or

a device that comprises the wave-actuated component of claim 33 or 34, or

a device that comprises the fin system of claim 49,

the method comprising sending signals to the device.

61. A wave-powered water vehicle, comprising:

a) a first component which is a float that travels on or near the water surface;

b) a second component which is wave actuated and travels below the first component; and

c) a means whereby the first component engages the second component and/or the second component engages the first component;

wherein said engagement means provides lateral support of one component for the other, and thereby minimizes lateral movement of one against the other when the components are fitted together.

62. A wave-powered water vehicle, comprising:

a) a first component which is a float that travels on or near the water surface;

b) a second component which is wave actuated and travels below the first component; and

c) an internal securing means built into one component, the other component, or both, whereby one of said components may be secured against the other.

63. The wave-powered water vehicle comprising both the engagement means according to claim 1 and the internal securing means of claim 62.

64. The wave-powered water vehicle of claim 61 or 63 wherein said engagement means is a hollow in the first component configured to engage the second component.

65. The wave-powered water vehicle of claim 4, wherein the first component comprises two floating pontoons, and the second component is configured to fit between and engage said pontoons.

66. The wave-powered water vehicle of claim 61 or 63 wherein said engagement means comprises rails on the second component that extend upwards to engage both sides of the hull of the first component.

67. The wave-powered water vehicle of claim claim 61 or 63 wherein the second component comprises multiple tiers of wave actuated fins.

68. The wave-powered water vehicle of claim 67 wherein all of said tiers nest into each other, thereby reducing height when the tiers are stacked upon each other.

69. The wave-powered water vehicle of claim 68 wherein said tiers comprise an upper tier having an first engagement means for engaging the first component and a second engagement means for engaging a tier immediately underneath,

70. The wave-powered water vehicle of any of claims 62 to 69, wherein said internal securing means comprises one or more tethers joining the first component to the second component that can be drawn upwards and secured so that the second component is secured against the first component.

71. The wave-powered water vehicle of any of claims 62 to 70 wherein said internal securing means comprises one or more couplers on the first component that can receive and secure to part of a frame of the second component.

72. The wave-powered water vehicle of any of claims 62 to 71 wherein the second component comprises multiple tiers of wave actuated fins, and said internal securing means secures the uppermost tier to the first component, and each other tier to the tier immediately above.

WHAT IS CLAIMED IS:

1. A wave-powered device (WPD) comprising:

(1) a float;

(2) a wave-actuated component formed with an aperture;

(3) a closure component associated with one or both of the float and the wave-actuated component, the closure component having a first state in which it secures the float and the wave-actuated component together as an assembly that can be moved as a unit and a second state that permits the wave-actuated component to move away from the float;

(4) a tether having a first end connected to the float and a second end connected to the wave-actuated component, such that

when the closure component is in the second state and the float is placed on or near the surface of still water, the float floats on or near the surface of the still water, the tether extends downwards from the float and under tension, and the wave-actuated component is submerged below the float, and

when the closure component is in the second state and the float is placed on or near the surface of wave-bearing water, the float floats on or near the surface of the wave-bearing water, the tether extends downwards from the float, and the wave-actuated component is submerged below the float, and interacts with the water to generate forces that are transmitted to the tether; and

(5) a winch mounted on the float above the aperture in the wave-actuated component for raising and/or lowering a load through the aperture.

2. The WPD of claim 1 wherein the float has top, bottom, and side surfaces, and comprises float side components that extend downwards generally parallel to the side surfaces to create a space defined by the bottom surface and the float side components, and the wave-actuated component is at least partially within that space.

3. The WPD of claim 1 wherein the wave-actuated component comprises components that extend upwards from the wave-actuated component and that interact with components of the float to locate the wave-actuated component in a fixed position in relation to the float, and/or the float comprises components that extend downwards and that interact with

components of the wave-actuated component to locate the wave-actuated component in a fixed position in relation to the float.

4. The WPD of claim 1 wherein:

the wave-actuated component comprises fins that, when the WPD is in wave-bearing water, rotate about an axis to generate the forces that are transmitted to the tether; and

the wave-actuated component includes members that extend downwards from the wave-actuated component and that, when the closure component is in the first state and the assembly is placed on a horizontal surface, separate the fins from the horizontal surface.

5. The WPD of claim 1 wherein the tether has at least one of the following characteristics:

(1) the tether has a substantially flat configuration with an average thickness of 1-3 mm;

(2) the tether is free from components that carry electrical currents and/or is free from components that carry signals of any kind;

(3) the tether comprises a plurality of round tensile members;

(4) the tether is a flat webbing constructed of a synthetic polymer;

(5) the tether is a flat webbing that is tensioned only along the leading edge thereof, thus reducing fluttering and bowing;

(6) the tether is attached to the float at a hinge point that comprises a shaft and bushing arrangement such that the tether is not required to flex against its wide axis (pitch);

(7) at the float, the tether is guided through a 90° twist, and then flexes in the pitch axis over a pulley with its axis level and perpendicular to the longitudinal axis of the float;

(8) at the float, the tether is guided through a 90° twist, and then flexes in the pitch axis over a pulley with its axis level and perpendicular to the longitudinal axis of the float, wherein the pulley is crowned to increase the tension on the center of the tether to lessen the effect of the 90° twist increasing the tension of the outer parts of the tether, relative to the center of the tether.

6. The WPD of claim 1 wherein the float comprises a rudder near the aft end of the float.

7. The WPD of claim 1, and further comprising:

(1) wireless communications equipment;

(2) a computer system;

(3) a satellite-referenced position sensor;

(4) a horizontal direction sensor that senses direction in a horizontal plane; and

(5) a steering actuator;

the computer system,

(a) being linked to the communications equipment, the position sensor, the horizontal sensor and the steering actuator, and

(b) containing, or being programmable to contain, instructions to control the steering actuator in response to signals received from the communications equipment, or from the position sensor and the horizontal direction sensor, or from signals received from another sensor on the vehicle.

8. A method for controlling a function of the WPD of claim 1, the method comprising sending signals to the device.

9. A method of obtaining information, the method comprising receiving signals from, or recorded by, the WPD of claim 1.

10. A wave-powered device comprising:

(1) a float;

(2) a wave-actuated component;

(3) a closure component associated with one or both of the float and the wave-actuated component, the closure component having a first state in which it secures the float and the wave-actuated component together as an assembly that can be moved as a unit and a second state that permits the wave-actuated component to move away from the float;

(4) a tether having a first end connected to the float and a second end connected to the wave-actuated component, such that

when the closure component is in the second state and the float is placed on or near the surface of still water, the float floats on or near the surface of the still water, the tether extends downwards from the float and under tension, and the wave-actuated component is submerged below the float, and

when the closure component is in the second state and the float is placed on or near the surface of wave-bearing water, the float floats on or near the surface of the wave-bearing water, the tether extends downwards from the float, and the wave-actuated component is submerged below the float, and interacts with the water to generate forces that are transmitted to the tether; and

(5) a winch mounted on the float that can be operated to retract the tether from an extended position to a position where the wave-actuated component is drawn into contact with the float;

wherein the winch comprises wiping elements that clean the tether when the tether is drawn through the winch.

11. A wave-powered device comprising:

(1) a float;

(2) a wave-actuated component;

(3) a closure component associated with one or both of the float and the wave-actuated component, the closure component having a first state in which it secures the float and the wave-actuated component together as an assembly that can be moved as a unit and a second state that permits the wave-actuated component to move away from the float;

(4) a tether having a first end connected to the float and a second end connected to the wave-actuated component, such that

when the closure component is in the second state and the float is placed on or near the surface of still water, the float floats on or near the surface of the still water, the tether extends downwards from the float and under tension, and the wave-actuated component is submerged below the float, and

when the closure component is in the second state and the float is placed on or near the surface of wave-bearing water, the float floats on or near the surface of the wave-bearing water, the tether extends downwards from the float, and the wave-actuated component is submerged below the float, and interacts with the water to generate forces that are transmitted to the tether; and

(5) a winch mounted on the float that can be operated to retract the tether from an extended position to a position where the wave-actuated component is drawn into contact with the float;

wherein the winch is hinged in the pitch axis.

12. The WPD of claim 11 wherein:

the first-mentioned winch is relatively close to the fore end of the float, and

the float further comprises a second winch that is relatively close to the aft end of the float and a second tether attached to the second winch.

13. The WPD of claim 11 wherein the wave-actuated component is selected from one of the following two configurations:

(A) the wave-actuated component has a single substantially rigid spine, with fins extending on each side of the rigid spine, and when the WPD is in still water and the tether is in an extended position below the float, the rigid spine is at an angle of at most 40° to the horizontal, and lies in a vertical plane that passes through the longitudinal axis of the float; or

(B) the wave-actuated component has two substantially rigid spines, with fins extending between the rigid spines, and both the rigid spines, when the WPD is in still water and the tether is in an extended position below the float, lie in a plane at an angle of at most 40° to the horizontal, and the rigid spines are equally spaced from a vertical plane that passes through the longitudinal axis of the float.

14. The WPD of claim 12 wherein the wave-actuated component is selected from one of the following two configurations:

(A) the wave-actuated component has a single substantially rigid spine, with fins extending on each side of the rigid spine, and when the wave-actuated component is combined with a tether and a float in the form of a WPD and the WPD is in still water and the tether is in an extended position below the float, the rigid spine is at an angle of at most 15° to the horizontal, and lies in a vertical plane that passes through the longitudinal axis of the float; or

(B) the wave-actuated component has two substantially rigid spines, with fins extending between the rigid spines, and both the rigid spines, when the wave-actuated component is combined with a tether and a float in the form of a WPD and the WPD is in still water and the tether is in an extended position below the float, both rigid spines lie in a plane at an angle of at most 15° to the horizontal, and the rigid spines are equally spaced from a vertical plane that passes through the longitudinal axis of the float.

15. The WPD of claim 14 wherein, when the WPD is in still water, the fins lie side-by-side in a plane that is at an angle of at most 15° to the horizontal.

16. A wave-powered device comprising:

(1) a float;

(2) a flexible tether;

(3) a wave-actuated component, the tether connecting the float and the wave-actuated component wherein the wave-actuated component is formed with an aperture;

the float, the tether, and the wave-actuated component being such that

(A) when the device is in still water, (i) the float is on or near the surface of the water, (ii) the wave-actuated component is submerged below the float, and (iii) the tether is under tension; and

(B) when the device is in wave-bearing water, the wave-actuated component interacts with the water to generate forces that are transmitted to the tether;

(4) a first winch that can be operated to retract the tether from an extended position to a position where the wave-actuated component is drawn into contact with the float; and

(5) a second winch mounted on the float above the aperture in the wave-actuated component for raising and/or lowering a load through the aperture.

17. A wave-powered device comprising:

(1) a float;

(2) a flexible tether; and

(3) a wave-actuated component, the tether connecting the float and the wave-actuated component wherein the wave-actuated component is formed with an aperture;

the float, the tether, and the wave-actuated component being such that

(A) when the device is in still water, (i) the float is on or near the surface of the water, (ii) the wave-actuated component is submerged below the float, and (iii) the tether is under tension; and

(B) when the device is in wave-bearing water, the wave-actuated component interacts with the water to generate forces that are transmitted to the tether;

(4) a winch mounted on the float above the aperture in the wave-actuated component for raising and/or lowering a load through the aperture.

18. A wave-powered device comprising:

(1) a float;

(2) a flexible tether; and

(3) a wave-actuated component, the tether connecting the float and the wave-actuated component;

the float, the tether, and the wave-actuated component being such that

(A) when the device is in still water, (i) the float is on or near the surface of the water, (ii) the wave-actuated component is submerged below the float, and (iii) the tether is under tension; and

(B) when the device is in wave-bearing water, the wave-actuated component interacts with the water to generate forces that are transmitted to the tether;

(4) a winch that can be operated to retract the tether from an extended position to a position where the wave-actuated component is drawn into contact with the float;

wherein the winch is hinged in the pitch axis.

19. A wave-powered water vehicle, comprising:

a) a first component that is a float that travels on or near the water surface;

b) a second component that is wave actuated and travels below the first component;

c) first and second tethers that connect the first and second components, such that the tethers can be retracted from an extended position to a position where the wave-actuated component is drawn into contact with the float, wherein the first and second tethers engage the first component at spaced positions and engage the second component at spaced positions; and

d) engagement means, associated with one or both of the first and second components, whereby the first component engages the second component and/or the second component engages the first component when the tethers are retracted;

wherein said engagement means provides lateral support of one component for the other, and thereby minimizes lateral movement of one against the other when the components are fitted together when the tethers are retracted.

20. The wave-powered water vehicle of claim 19 wherein said engagement means is a hollow in the first component configured to engage the second component.

21. The wave-powered water vehicle of claim 19, wherein the first component comprises two floating pontoons, and the second component is configured to fit between and engage said pontoons.

22. The wave-powered water vehicle of claim 19 wherein said engagement means is a hollow in the first component configured to engage the second component.

23. A wave-powered water vehicle, comprising:

a) a first component that is a float that travels on or near the water surface;

b) a second component that:

is wave actuated and travels below the first component,

comprises multiple tiers of wave actuated fins, wherein

each tier is movable and separable from any adjacent tier, and

each tier is provided with upwardly or downwardly extending structure to nest with any adjacent tier or the float; and

c) an internal securing means built into one component, the other component, or both, whereby one of said components may be secured against the other.

24. The wave-powered water vehicle of claim 23 wherein the upwardly or downwardly extending structure on the multiple tiers of wave actuated fins takes the form of a pair of longitudinally extending side beams.

25. The wave-powered water vehicle of claim 24 wherein all of said tiers nest into each other, thereby reducing height when the tiers are stacked upon each other.

26. The wave-powered water vehicle of claim 25 wherein said tiers comprise an upper tier whose side beams have upwardly protruding edges that engage the first component downwardly protruding edges that engage a tier immediately underneath the upper tier.

27. The wave-powered water vehicle of claim 23 wherein said internal securing means comprises one or more tethers joining the first component to the second component that can be drawn upwards and secured so that the second component is secured against the first component.

28. The wave-powered water vehicle of claim 23 wherein the internal securing means secures the uppermost tier of the multiple tiers to the first component, and each other tier of the multiple tiers to the tier immediately above that tier.