conditions such as wind, currents, etc. A rigid post is driven into the bed sediment. A ring guide on one of the floats slips over the post so that the floating evaporation pan may float freely around the post as wind and currents dictate. This anchoring design allows the pan to maintain a level position upon the water body surface and will allow the pan to raise and fall with the larger body of water due to precipitation events and/or discharge events.

Referring to FIG. **1**, there are at least three float assemblies **2** attached at 120 degrees around the outer walls of the evaporation pan. Preferably, each float assembly **2** consist of two floats **24**, **26**, although the invention can operate if the float assembly **2** comprise one float. The inner float **24** attached to the outer walls **4** of an evaporation pan **6**. The attachment point between the floats **24** and the walls **4** is determined to maintain the evaporation pan **6** in a level position in relation to the surface **8** of the body of water being evaluated. Thus, if three float assemblies **2** are employed, they would be positioned substantially equidistant from each other around the periphery of the evaporation pan **6**.

An anchor assembly **10** is used to maintain the evaporation pan **6** position within the body of water. The anchor assembly **10** comprises a rigid post **12** that is driven into the bed sediment **14** of the body of water. The post **12** is rotationally attached to one of the floats **2**, so that the evaporation pan **6** may rotate about the post **12** if pushed by conditions such as wind or current. The attachment point between the post **12** and the float assembly **2** preferably is substantially opposite to the point of attachment between the float assembly **2** and the pan **6** to ensure an even, balanced rotation.

In a preferred embodiment, a stilling well **16** is attached to the bottom of the evaporation pan **6**. A stilling well **16** is a tube-like fixture with a small opening in the bottom of the tube hydrologicaly connecting water inside the stilling well to water outside the stilling well, allowing the water level inside the stilling well **16** to be equal to the water level inside the pan **6**. The stilling well **16** dampens small pressure waves created by environmental conditions that might affect the accuracy of an evaporation rate calculation. If a stilling well **16** is employed in the present invention, a measurement device **18** would be inserted into the well **16** to measure the level of water within the well **16**. These devices are known in the art and include a pressure transducer, float and shaft encoder, or a staff gauge. The stilling well **16** may be constructed of any material that withstands water, such as PVC pipe.

Optionally, splash guards **28** may be employed between the float assemblies **2** and the evaporation pan **6** in order to ensure that water does not splash from the surface **8** into the evaporation pan **6**. These guards **28** would extend above the top of the float assemblies **2** and the upper lip of the evaporation pan **6** and would preferably be made of a material similar to the float assemblies **2** or pan **6**.

The evaporation pan **6** should be constructed of a material that is water resistant and does not unduly reflect or absorb sunlight, for example stainless steel. The size and shape of the evaporation pan **6** may be selected by one skilled in the art, but a preferred evaporation pan **6** is a modified class A United States Weather Service ET Pan that is circular in shape, has a 47 inch diameter, and is 10 inches deep with an open top. The circular shape of this preferred evaporation pan assists in floating stability for the present device.

The float assemblies **2** may be any size, shape, or material such that they provide sufficient buoyancy to allow the evaporation pan **6** to float on the surface **8** of the body of water being evaluated when the selected amount of water is placed within the pan **6**. In a preferred embodiment, the float assemblies **2** comprise at least a portion that is hollow. An opening **20** at the top of the floats **26** allow a user to add a material or substance to the hollow portion of the floats **26**. By adding a material to the floats **26**, this allows the buoyancy to be adjustable, without interchanging floats. Any easily accessible material may be input into the hollow of the floats, with water being preferred due to its weight and proximity. A cap or plug **22** may be inserted into the opening **20** after a desired amount of the material is inserted into the floats **26**.

In a preferred embodiment, the floats **24**, **26** will be enclosed, hollow stainless steel cylinders that comprise a height equivalent to the height of the evaporation pan **6**. In a most preferred embodiment, the invention comprises three float assemblies **2** attached to the outer wall **4** of the evaporation pan **6** at about 120 degrees from each other. The float assemblies **2** are made up of two enclosed stainless steel cylinders. A six inch diameter cylinder **24** attached to the evaporation pan **6** and a 12 inch diameter cylinder **26** attached to the six inch diameter cylinder at a point opposite of the attachment to the evaporation pan **6**. The opening **20** is positioned on the top of the 12 inch diameter cylinder **26**. This configuration of the invention provides excellent balance and stability for use in most open water systems.

The anchor assembly **10** may also be made of numerous materials. The central post **12** must merely be constructed of a rigid material that has sufficient strength to maintain its position when driven into the bed **14** of the body of water and supporting the weight of the floating evaporation pan **6** and float assemblies **2**. In a preferred embodiment a three-quarter inch steel rod may be used. To provide the rotational attachment from the anchor assembly **10** to one of the float assemblies **2**, an open-ended hollow cylinder **30** may be placed over the central post and attached to the float **2**. Preferably, the hollow cylinder **30** may be made of a plastic material. In another embodiment of the invention, a ring may be attached to one of the float assemblies **2** and placed over the central post.

In describing attachments between the elements herein, any known method of attaching the elements may be employed by one skilled in the art. Examples of attachment methods include the use of drilling holes and employing screws and bolts, using pins and/or adhesives, or using welding techniques.

In operation, the invention described herein would be used as follows. The central post **12** would be imbedded into the bottom of the water body being evaluated. The hollow cylinder **30** is placed over the central post **12**. One of the float assemblies **2**, attached to the evaporation pan **6** is attached to the hollow cylinder **30**. An amount of water is added to the evaporation pan **6** from the surface **8** of the body of water. If necessary, to adjust the buoyancy of the evaporation pan **6** so that the water level inside the pan **6** is at the same height as the surface **8**, water is added through the openings **20** of the float assemblies **2**. When the desired height is achieved, the plugs **22** are placed into the openings **20**. Finally, at certain time intervals, selected by one skilled in the art, the water level is determined in the pan, providing the information necessary to calculate the evaporation rate of water in the body of water.

What is described are specific examples of many possible variations on the same invention and are not intended in a limiting sense. The claimed invention can be practiced using other variations not specifically described above.